1			
2			
3	Minutes of		
4 5	Lehman College Senate Meeting Wednesday, May 9, 2018		
6	Wednesday, May 9, 2018		
7			
8	~		
9 10		tors Present: Acevedo, J.; Ahmed, I.; Alborn, T.; Ali, T.; Atif, I.; Bazile, S.; Bhawanidin, E.; ya, S.; Blachman, S.; Budescu, Mi.; Burt, K.; Burton-Pye, B.; Campeanu, S.; Cheng, H.; Clark,	
11	-	odrington, N.; Conner, P.; Cruz, J.; Deckman, S.; Eshun, Y.; Farrell, R.; Fayne, H.; Fera, J.;	
12		an, D.; Johnson, Matthew.; Jones, B.; Kolade, B.; Magdaleno, J.; Mak, W.; Manier, D.;	
13	Maria	nnetti, M.; Markens, S.; Marshall, A.; Martín, Ó.; Mathew, J.; Mayi, A.; McCabe, J.; McKenna,	
14		IcNeil, C.; Munch, J.; Oh, H.; Phillips, M.; Prince, P.; Prohaska, V.; Rampersaud, W.; Rice, A.;	
15 16	Rivera-McCutchen, R.; Rosario, Y; Sailor, K.; Sarmiento, R.; Schlesinger, K.; Scott, K.; Sen, G.; Shanley, D.; Singh, S.; Sisselman, A.; Tananbaum, D.; Trimarchi, Y.; Valentine, R.; Wright, C.;		
17			
18		tors Absent: Abdulrahman, A.; Al Qadi, T.; Amend, A.; Arias Bueno, M.; Assoumanou, S.;	
19 20		n, L.; Baba, N.; Badillo, D.; Bergmann, R.; Cabrera, S.; Calderon, P.; Capote, N.; Clever, R.; ford, S.; Davis, A.; DeJaynes, T.; DiBello, M.; DiRaimo, S.; Doyran, M.; Eleyinafe, O.;	
21		racion, D.; Feliz, M.; Finger, R.; Forde, A.; Gandia, A.; Gerry, C.; Gilles, Z.; Gomez, E.;	
22		ez, P.; Graulau, J.; Gyeabour, K.; Herrera, B.; Jeronimo, C.; Jordan, S.; Latimer, W.; Machado,	
23	E.; MacKillop, J.; McDonnell, O.; Nolli Gasper, S.; Okechukwu, I.; Pettipiece, D.; Registe, K.;		
24	Reyes, N.; Sabab Sawonto, M.; Salazar, S.; Sauane, M.; Sosnovskiy, O.; Suleiman, H.; Trujillo, K.;		
25	Ulyss	e, V.; Wangerin, R.; Wynne, B.; Yates, S.; Yavuz, D.;	
26			
27	TL	a mostin a viva called to and a his Procident Loof I. Commat 2:24 mm	
28	111	e meeting was called to order by President José L. Cruz at 3:34 p.m.	
29			
30	1.	Approval of the Minutes	
31		The minutes of the April 18, 2018 Senate meeting were amended and approved by unanimous	
32		voice vote with the following corrections: (1) that line 71 strike the words "ensured" and	
33		replace with "tried to ensure," and (2) that line 75 add "Pathways" before the words	
34		"Subcommittee 2" for the purpose of clarification.	
35			
36	2.	Announcements and Communications	
37		a. Report of the President	
38		Dr. Cruz welcomed all to the final meeting of the semester and thanked all for the great work	
39		put forth throughout the entire academic year. Dr. Cruz also expressed that such effort, which	

was echoed in further detail at the State of the College address, is not only demonstrated by how the College remains compelling in vision, but also by the state of the College itself, which is remarkably strong. Dr. Cruz explained, the mission of the College will continue to advance and transform the lives of those the College serves, and position the College well for the future.

Dr. Cruz also encouraged all to attend the 50th commencement ceremony on May 31st, which is expected to be the largest ever graduating class of Lehman College. He informed all that, approximately 3500 students have applied for graduation and expressed the hope to see a number of those students and their families on that day.

b. Student Legislative Assembly—

Mr. Jose Acevedo expressed that although this would be his last College Senate as VP of the Student Legislative Assembly, it was an honor to have served in this capacity. He also expressed his gratitude to all of those who have not only helped to accomplish the many tasks of the year, but for also aiding in his own personal development and growth. He gave special thanks to President Cruz, VP Magdaleno of Student Affairs, VP Bergmann of the Information Technology Division, Director Ramirez of Public Safety, Chief Librarian Prof. Schlesinger, VP Clark of Administration and Finance, Provost Fayne of Academic Affairs, and the Campus Life staff.

Mr. Acevedo also expressed that while his beliefs are that the work accomplished this year has bettered the College, there is still much work left to be done. He explained that the College could further improve by lowering cafeteria prices for the students and enhancing communication between department faculties in regards to scheduling courses, among other important changes. Mr. Acevedo expressed that as long as everyone works together, the College will continue to improve in this way and more.

Mr. Acevedo wished all a happy finals week.

REPORTS OF STANDING COMMITTEES-

72	1. Graduate Studies
73	Prof. Janet DeSimone presented proposals for the following departments: Speech-Language-
74	Hearing Sciences, History, Biological Sciences, Middle and High School Education, and Health
75	Sciences. The proposals were approved by unanimous voice vote.
76	
77	Prof. DeSimone also presented one informational item regarding an experimental course in the
78	Department of Music, Multimedia, Theatre, and Dance.
79	
80	Prof. DeSimone thanked members of the committee for being helpful all year long and wished all a
81	great summer.
82	
83	See Attachment I
84	
85	2. Governance Committee
86	Prof. Duane Tananbaum announced that the committee nominated Prof. Julie Maybee to replace
87	Prof. Mary Phillips for a one-year vacancy on the Undergraduate Curriculum Committee. The
88	recommendation was approved by unanimous voice vote.
89	
90	Prof. Tananbaum thanked members of the committee, students who served on the committee, Mr.
91	Jose Acevedo, and Academic Affairs Manager Sophia Diamantis-Fry for all of their hard work. Prof.
92	Tananbaum also thanked the President and his staff for their efforts and in making sure that the
93	Senate remains an important body in helping the College determine its future.
94	
95	See Attachment II
96	
97	3. Committee on Admissions, Evaluations and Academic Standards
98	Prof. Penny Prince provided an update on the committee's subcommittee, which was established in
99	order to revisit the College's policies on admissions. She explained that the subcommittee would be
100	looking into the three main avenues for admission to the College: regular admits, the Searching for
101	Evaluation, Education, and Knowledge (SEEK) program, and the Opportunity for Student Pilot
102	Program (OSS). Prof. Prince also explained that the subcommittee would be looking into data, in

103	particular, on how the students of these groups were admitted, and whether admissions requirements
104	are a good predictor of student success.
105	
106	Prof. Prince also expressed that the committee hopes to obtain this information by the fall semester
107	of the next academic year.
108	
109	Prof. Prince announced that there would be a performance of a musical she composed and that the
110	cast/students wrote. The musical, entitled When I Get to Where I'm Going, is scheduled for May 10th
111	at 7:00 p.m. in the Recital Hall, Music 306.
112	
113	Prof. Prince thanked her committee and all who helped this year.
114	
115	4. Undergraduate Curriculum
116	Prof. Vincent Prohaska presented proposals for curriculum changes in the following departments:
117	Art, Mathematics, and Music, Multimedia, Theatre, & Dance. All proposals were approved by
118	unanimous voice vote.
119	
120	Prof. Prohaska also presented one informational item on an experiential course in Latin American
121	and Caribbean Studies.
122	
123	Prof. Prohaska thanked all members of the committee, the students, and the following members of
124	the committee who would not be returning next year: Prof. Danna Ethan, Prof. Mary Phillips, and
125	Administrative Representative of the Committee, AVP Stefan Becker.
126	
127	See Attachment III
128	
129	5. Academic Freedom
130	Prof. David Manier presented a resolution to address issues when there are media inquiries. He
131	reiterated what was discussed in meetings prior: that there were occasions when the media and
132	pressure groups, organized by social media, would make inquiries to the College and other colleges
133	on statements and published opinions of members of the college community. The resolution, Prof.

Manier explained, presents established guidelines on how to respond.

134

135	Prof. Manier informed all that, at the suggestion of the Executive Counsel, Esdras Tulier, there were
136	several amendments to the resolution: (1) that the word "official College" would be inserted before
137	the word "responses" in the first paragraph, (2) that the word "assert" would replace the word
138	"defend" in the second paragraph, and (3) that the wording "within the law" would be included at
139	the end of the second paragraph.
140	
141	Many questions were raised regarding the resolution and an additional amendment was proposed:
142	replacing the words "it is the sense of," in the first paragraph, with the word "assert."
143	
144	All amendments to the resolution were approved by unanimous voice vote.
145	
146	Prof. Tananbaum thanked Prof. Manier and the committee for all their hard work. Prof. Manier
147	expressed his gratitude to President Cruz, Prof. Tananbaum, Chief Librarian Kenneth Schlesinger,
148	members of the committee, and all of those who have done their share to help the committee.
149	
150	
151	See Attachment IV
152	
153	
154	6. Library, Technology, and Telecommunication
155	Mr. Stephen Castellano presented the report and discussed announcements from the Library,
156	Division of Information Technology, and concerning Blackboard.
157	
158	See Attachment V
159	
160	7. Campus Life and Facilities
161	There was no report. Mr. Wil Rampersaud thanked all members of the committee, the College
162	Senate, and faculty for all of their hard work this semester. He also wished all a great summer.
163	
164	8. Budget and Long-Range Planning
165	Professor Haiping Cheng presented the report of the Joint Committee of Senate and FP&B Budget
166	and Long Range Planning.

167	
168	See Attachment VI
169	
170	9. University Faculty Senate Report
171 172	Professor Janette Tilley presented the report.
173	See Attachment VII
174 175 176	Old BusinessNone.
177	New BusinessNone.
178	
179 180	<u>ADJOURNMENT</u>
181	The meeting was adjourned at 4:24 p.m.
182	Respectfully submitted:
183	
184	Esdras Tulier

Governance Committee Report

The Governance Committee nominates Prof. Julie Maybee (PHIL) to fill a one-year vacancy on the Senate Undergraduate Curriculum Committee.

Senate Meeting – May 9, 2018

Proposed Graduate Studies Report

On behalf of the Graduate Studies Committee, I'd like to put forth proposals from the following departments:

Department of Speech-Language-Hearing Sciences

Course change: SPE 719

Department History

- Course changes (removal of cross-listing errors): HIE 702; 707; 708; 709; 710; 716; 717; 721; 723; 730; 741; 743
- Course changes (removal of cross-listing errors): HIU 718; 731; 732; 733; 735; 738; 745; 748

Department of Biological Sciences

- Course changes: BIO 75402; 70606; 73002; 74502; 76106; 76114; 76301; 77200; 78002; 76502; 76404; 618; 79302; 7921\
- Withdrawal of courses: BIO 792; 79201;
- New course: BIO 615

Department of Middle and High School Education

- Course change: ESC 709
- Misc. degree changes: replacing ESC 611 with ESC 612

Department of Health Sciences

- New degree program: MS program in Human Performance and Fitness
- The committee discussed this proposal during the February 2018 meeting and proposed some revisions. The revisions have been made, and the committee is confident in the curriculum and is satisfied that there is a need for this proposed program.
- The proposal is being sent to the senate for approval.

Does anyone have any questions and/or comments? All those in favor say I. Anyone opposed? Any abstentions?

<u>Informational Items</u>: The committee discussed and approved with a quorum the following experimental courses:

Department of Music, Multimedia, Theatre and Dance

• Experimental courses: DNC 750 and THE 750

Our next grad studies meeting will be in the fall.

DEPARTMENT OF BIOLOGICAL SCIENCES_

CURRICULUM CHANGE

1. Type of Change: pre or corequisite; description

2. **From**:

D	Productive October
Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 75402
& Number	
Course Title	Comparative Morphology of Vascular Plants: Laboratory
Description	Comparative Morphology of Vascular Plants: Laboratory
Pre/ Co	Comparative Morphology of Vascular Plants: Lecture.
Requisites	
Credits	3
Hours	6
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
·	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate

Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix & Number	BIO 75402
Course Title	Comparative Morphology of Vascular Plants: Laboratory
Description	By reviewing historical trends in land plant developments from liverworts to angiosperms in a recitation format, students will further explore the morphology of vascular plants by experiments involving tissue culture, the creation of models, and the preparation of a collection of pressed specimens to illustrate key concepts,
Pre/ Co Requisites	BIO 75401
Credits	3
Hours	6
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

- 4. <u>Rationale</u>: Error in citing the pre/co requisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title. Course description needed to be more specific.
- 5. Date of departmental approval: 02/14/18

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: pre or corequisite; description

2. **From:**

2. From:	
Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 70606
& Number	
Course Title	Taxonomy of Vascular Plants: Laboratory
Description	Taxonomy of Vascular Plants: Laboratory
Pre/ Co	Taxonomy of Vascular Plants: Lecture.
Requisites	
Credits	2
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate

Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix & Number	BIO 70606
Course Title	Taxonomy of Vascular Plants: Laboratory
Description	Students will review key diagnostic features of the liverworts, mosses, hornworts, clubmosses, ferns, gymnosperms, and angiosperms in their currently understood phylogenetic arrangement. Field trips will be conducted to prepare a pressed collection of representative examples from key lineages including major angiosperm families.
Pre/ Co Requisites	BIO 70605
Credits	2
Hours	4
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

- 4. <u>Rationale</u>: Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title. Course description needed to be more specific.
- 5. Date of departmental approval: 02/14/18

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: pre or corequisite; description

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 73002
& Number	
Course Title	Plant Physiology: Laboratory
Description	None
D / O	D. H DI. (Bl.) I. (
Pre/ Co	Problems in Plant Physiology:Lecture.
Requisites	
Credits	3
Hours	6
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Not Applicable Required
Component	English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>To</u>:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 73002
& Number	
Course Title	Plant Physiology: Laboratory
Description	Laboratory for exploring problems in plant physiology
Pre/ Co	BIO 73001
Requisites	
Credits	3
Hours	6
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flavible
	Flexible World Cultures
	World Cultures US Experience in its Diversity
	OS Experience in its Diversity Creative Expression
	Creative Expression Individual and Society
	Scientific World
	Goldhallo World
1	

- 4. **Rationale:** Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title. Course description was missing from graduate bulletin.
- 5. Date of departmental approval: 02/14/18

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: pre or corequisite; description

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 74502
& Number	
Course Title	Phytochemistry: Laboratory
Description	Phytochemistry: Laboratory
Pre/ Co	Phytochemistry: Lecture.
Requisites	
Credits	3
Hours	6
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flavible
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society Scientific World
	Scientific vvolid

Department(s)	Biological Sciences

Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix	BIO 74502
& Number	3.0 1.002
Course Title	Phytochemistry: Laboratory
Description	Using experiments, students will learn how plant-derived chemicals are extracted, analyzed and studied.
Pre/ Co	BIO 74501
Requisites	
Credits	3
Hours	6
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. **Rationale:** Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title. Course description needed to be more specific.

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: pre or corequisite

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 76106
& Number	
Course Title	Fishes and Fisheries Biology: Laboratory
Description	Students will field collect in both freshwater and marine environments.
	Collections will be worked up using standard fisheries science
	techniques to evaluate diet, growth parameters, and population
D / O	dynamics. Analysis of data will be turned in as a final term project.
Pre/ Co	Fishes and Fisheries Biology: Lecture
Requisites	
Credits	3
Hours	6
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc) General	X_ Not Applicable
Education	Not Applicable Required
Component	English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix	BIO 76106
& Number	
Course Title	Fishes and Fisheries Biology: Laboratory
Description	Students will field collect in both freshwater and marine environments. Collections will be worked up using standard fisheries science techniques to evaluate diet, growth parameters, and population dynamics. Analysis of data will be turned in as a final term project.
Pre/ Co	BIO 76105
Requisites	
Credits	3
Hours	6
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics Science
	Science
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

- 4. **Rationale:** Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title.
- 5. Date of departmental approval: 02/14/18

DEPARTMENT OF BIOLOGICAL SCIENCES_

CURRICULUM CHANGE

1. Type of Change: pre or corequisite; description

2. **From:**

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
	Diology
Subject Area	Biology
Course Prefix & Number	BIO 76114
Course Title	Marine Ecology: Laboratory
Description	Marine Ecology: Laboratory
Pre/ Co	Marine Ecology: Lecture.
Requisites	
Credits	2
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate

Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix	BIO 76114
& Number	
Course Title	Marine Ecology: Laboratory
Description	Students will, using field collected material, examine such ecological principle as resource partitioning, growth and population dynamics of coastal marine organisms, niche partitioning, and community structure. When possible, field trips to field sites will be incorporated. Students will learn how to apply Fishery Statistics to their studies and write these up as term projects for grade.
Pre/ Co	BIO 76113
Requisites	
Credits	2
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science Flexible
	Plexible World Cultures
	World Cultures US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. <u>Rationale</u>: Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title. Course description needed to be more specific.

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: pre or corequisite

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 76301
& Number	
Course Title	Experimental Parasitology: Laboratory
Description	Emphasis will be placed on the applications of modern procedure to the
	study of parasitic organisms.
Pre/ Co	Experimental Parasitology: Lecture.
Requisites	
Credits	3
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>To</u>:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 76301
& Number	
Course Title	Experimental Parasitology: Laboratory
Description	Emphasis will be placed on the applications of modern procedure to
	the study of parasitic organisms.
Pre/ Co	BIO 763
Requisites	
Credits	3
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V NI (A P II
General	X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. <u>Rationale:</u> Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title.

DEPARTMENT OFBIOLOGICAL SCIENCES_

CURRICULUM CHANGE

1. Type of Change: pre or corequisite; description

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 77200
& Number	
Course Title	Electron Microscopy Cytology: Laboratory
Description	Electron Microscopy Cytology: Laboratory
Pre/ Co	Cell Biology: Lecture.
Requisites	
Credits	4
Hours	8
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World
	30.011.110 170114

Department(s)	Biological Sciences

Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix & Number	BIO 77200
Course Title	Electron Microscopy Cytology: Laboratory
Description	Review of key concepts in preparation of material for both the Scanning Electron Microscope and the Transmission Electron Microscope, which will be examined and photographed. Material will be used to compile a laboratory notebook as the basis of a semester-long project to identify and measure organelles and structures characteristic to each sample at hand.
Pre/ Co	BIO 77003
Requisites	
Credits	4
Hours	8
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	X_ Not Applicable
Education Component	Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. **Rationale:** Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title. Course description needed to be more specific.

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: pre or corequisite

_	_
٠,	From:
∠.	I I OIII.

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix & Number	BIO 78002
Course Title	Mathematical Biology: Laboratory
Description	Biometry data analysis and graphics.
Pre/ Co Requisites	NA
Credits	2 or 3
Hours	4 or 6
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

Α.	•	_	_
٠.		n	-
J.		v	

Department(s)	Biological Sciences

Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 78002
& Number	
Course Title	Mathematical Biology: Laboratory
Description	Biometry data analysis and graphics.
Pre/ Co	BIO 78001
Requisites	
Credits	2 or 3
Hours	4 or 6
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World
	23333330

4. **Rationale:** All Bio lab courses should have lecture as a prerequiste/corequisite, so students gain hands-on experience of the materials covered in lecture. This particular course did have a prerequiste/corequisite listed, which is an error. Title but not the course number is shown. Change is required to indicate the course number instead of the course title.

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: pre or corequisite; description

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 76502
& Number	
Course Title	Paleobotany: Laboratory
Description	Paleobotany: Laboratory
Pre/ Co	NA
Requisites	
Credits	2
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World
	33.33 773.13

Department(s)	Biological Sciences

Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 76502
& Number	
Course Title	Paleobotany: Laboratory
Description	Students will study plant fossils in the laboratory from the microscopic to macroscopic scales.
Pre/ Co	BIO 76501
Requisites	
Credits	2
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. <u>Rationale</u>: Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title. Course description needed to be more specific.

DEPARTMENT OF BIOLOGICAL SCIENCES_

CURRICULUM CHANGE

1. Type of Change: pre or corequisite; description

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 76404
& Number	
Course Title	Plant Ecology: Laboratory
Description	Plant Ecology: Laboratory
Pre/ Co	
Requisites	
Credits	3
Hours	NONE
Liberal Arts	[X] Yes [] No
Course	NONE
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	Biological Sciences

Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 76404
& Number	
Course Title	Plant Ecology: Laboratory
Description	Using field studies and laboratory experiments, students will become
	familiar with common plants and ecosystems of the region, how they
	react to perturbation, and how they remain resilient.
Pre/ Co	BIO 76403
Requisites	
Credits	3
Hours	<u>3</u>
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. <u>Rationale</u>: Error in citing the pre/corequisite. Title but not the course number is shown. Change is required to indicate the course number instead of the course title. Hours were missing and must be added. Course description needed to be more specific.

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: Course not listed in the graduate bulletin

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [] Graduate
Academic	[] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	Course not listed in the graduate bulletin
& Number	
Course Title	
Description	
Pre/ Co	
Requisites	
Credits	
Hours	
Liberal Arts	[]Yes []No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

<u> </u>	
Department(s)	Biological Sciences

Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix & Number	BIO 618
Course Title	Problems in Ecology
Description	Recent advances in ecology in urban environments will be explored in relation to population and community interactions, the nature of the niche, endangered species, non-natives, threats to the biosphere, and possible modes of recovery Fieldwork will be devoted to observing different urban ecosystems for gathering and interpreting data.
Pre/ Co	NA
Requisites	
Credits	4
Hours	<u>6</u>
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. **Rationale:** This course is listed in CUNYfirst but is not in the graduate bulletin. This proposal corrects this error.

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change Course not listed in the graduate bulletin

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [] Graduate
Academic	[] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	Course not listed in the graduate bulletin
& Number	
Course Title	
Description	
Pre/ Co	
Requisites	
Credits	
Hours	
Liberal Arts	[]Yes []No
Course	
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	Nico Acceptable
General	Not Applicable
Education	Required English Composition
Component	Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. **To:**

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix & Number	BIO 79302
Course Title	Seminar in Special Topics
Description	Seminar in biological sciences exploring special topics
Pre/ Co Requisites	NA
Credits	<u>2</u>
Hours	<u>2</u>
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. **Rationale:** This course is listed in CUNYfirst but is not in the graduate bulletin. This proposal corrects this error.

DEPARTMENT OFBIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: Change in course credits, prerequisite

2. **From**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Biology
Course Prefix	BIO 7921
& Number	
Course Title	Tutorial
Description	NONE
Pre/ Co	Graduate Adviser's permission.
Requisites	
Credits	4
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V NI (A P II
General	X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. **To**:

Department(s)	Biological Sciences
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix & Number	BIO 7921
Course Title	Tutorial
Description	A study performed under the supervision of a member of the graduate faculty in Biological Sciences intended to involve the student in the performance of a carefully supervised project.
Pre/ Co Requisites	Departmental Permission Required.
Credits	2 (may be repeated for a maximum 4 credits)
Hours	<u>2</u>
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Often times a student is engaged in research for this tutorial and cannot complete the work and write up in one semester. In addition, sometime a student has taken all of the graduate courses offered in a given semester and needs to compete one or two credits for the degree. The tutorial, under the guidance of a faculty member, can provide a solution for the student while also giving the student additional graduate experience. Currently, if the student had already taken tutorial once, they cannot repeat it again. Adding approval of the graduate advisor as a prerequisite will address this problem. This course is listed in CUNYfirst but the description is not in the graduate bulletin.

DEPARTMENT OF_BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: Withdrawal of courses

2. **Description**: BIO 792 Tutorial (4 credits)

3. **Rationale:** The course has a duplicate in the online catalog. BIO 792 is the same as Bio 7922.

4. Date of departmental approval: 3/14/18

DEPARTMENT OFBIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: Withdrawal of courses

2. **Description**: BIO 79201 Advanced Study (2 credits)

- 3. **Rationale:** The course has a duplicate in the online catalog. BIO 79201 is the same as BIO 7921.
- 4. Date of departmental approval: 3/14/18

DEPARTMENT OFBIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of change: New Course

2.

2.						
Department(s)	Department(s) Biological Sciences					
Career	[] Undergraduate [X] Graduate					
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial					
Subject Area	Biology					
Course Prefix	BIO 615					
& Number						
Course Title	Medical Microbiology					
Description	Study of disease mechanisms, involving bacteria, viruses, fungi, and parasites. A case-based approach focused on common clinical symptoms, diagnostic laboratory tests, and treatment options.					
Pre/ Co Requisites	BIO 331 and Permission of the Graduate Advisor.					
Credits	4					
Hours	6					
Liberal Arts	[X] Yes [] No					
Course	NA					
Attribute (e.g.						
Writing						
Intensive,						
WAC, etc)						
General	X_ Not Applicable					
Education	Required					
Component	English Composition Mathematics					
	Science					
	Flexible					
	World Cultures					
	US Experience in its Diversity					
	Creative Expression					
	Individual and Society					
	Scientific World					

3. <u>Rationale</u>: The course is designed for graduate students that require advanced knowledge of medical biology for health professional schools. The course uses a case-based approach that is currently adopted by medical schools across the country to prepare students for assessing a patient, forming a differential list, initiating a preliminary diagnosis, running testing to confirm the diagnosis, and determining an appropriate treatment based on that diagnosis. The course can provide Lehman students with a "head start" with this procedure before going to health professional schools. The group case aspect of the course also provides students with an opportunity to improve their communication skills, learn professionalism, and collaborative work, which are vital skills for any health profession.

4. Learning Outcomes (By the end of the course students will be expected to):

- Develop familiarity with the major types of pathogenic microorganisms and the diseases that they produce in humans.
- Demonstrate knowledge of clinical manifestations in the history and physical examination that point to infection.
- Demonstrate the ability to use the laboratory to diagnose infections, including appropriate specimen collection
- Demonstrate the ability to interpret laboratory findings in the context of the patient's presentation and findings.
- Demonstrate knowledge of general categories of therapeutic modalities available to treat infections.
- Demonstrate problem solving ability and diagnostic reasoning with infectious diseases.
- 5. Date of Departmental Approval: 02/19/14

LEHMAN COLLEGE

OF

THE CITY UNIVERSITY OF NEW YORK

A PROPOSAL TO ESTABLISH A DEGREE PROGRAM IN

HUMAN PERFORMANCE AND FITNESS

LEADING TO A

MASTER OF SCIENCE (MS)

SPONSORED BY
THE DEPARTMENT OF HEALTH SCIENCES
Approval: 12/6/2017

APPROVED BY LEHMAN COLLEGE FACULTY SENATE Approval: 5/9/2018

Institutional Representative: Dr. Harriet Fayne, Provost

Contact Person: Dr. Gul Tiryaki-Sonmez, Director, Program of Exercise Science

Department of Health Sciences

718-960-7755

Gul.sonmez@lehman.cuny.edu

Provost's Signatu	ıre:			
Provost's Name:				

Proposal to Establish

A Master of Science (MS) in Human Performance and Fitness

Table of Contents

i. Executive Summary	i
ii. Abstract	ii
1. Purposes and Goals	1
2. Needs	1
A. National Needs	1
B. Regional and Local Needs	3
C. Institutional Needs	6
3. Students	6
A. Demand for a Master's Degree in Human Performance and Fitness	6
B. Recruitment Strategy	8
4. Curriculum	8
A. Admission requirements	8
B. Proposed Graduate Curriculum	9
C. Proposed Sequence of Courses: Thesis Option	10
D. Proposed Sequence of Courses: Capstone Option	10
E. Thesis Requirement (Option 1)	11
F. Capstone Requirement (Option 2)	11
5. Cost Assessment	12
A. Faculty	12
B. Facilities and Equipment	15
C. Library and Instructional Materials	15
D. Budget Tables	16
6. Evaluation	19

A. Internal Evaluation	19
B. External Evaluation	20
Appendix A: Courses and Syllabi	21
Appendix B: External Evaluator CV	
Appendix C: External Evaluation Report	82
Appendix D: Response to External Evaluation Report	88
Appendix E: Curriculum Vitae of Faculty	91
Appendix F: Required Qualifications for New Hire (Lecturer Position)	134
Appendix G: References	135

i. Executive Summary

The Exercise Science Program in the Department of Health Sciences at Lehman College of The City University of New York proposes to establish master's degree program in Human Performance and Fitness leading to a Master of Science (MS) degree. It is proposed that the new program enroll its first students in the Fall of 2018. This program will be offered under the sponsorship of the Exercise Science Program in Department of Health Sciences. The proposed program aims to equip students with necessary skills and competencies required to function efficiently in the field of exercise science, and physical fitness and wellness. With personal health and fitness occupying much of our nation's attention, the new program – a graduate degree in Human Performance and Fitness, stressing and tying together the studies of anatomy, kinesiology, physiology, nutrition and exercise - is an excellent way to tap into a plentiful job market whose goal is the promotion of a healthier nation through exercise and fitness programs. The program will emphasize the preparation of the students for corporate and community fitness programs, health clubs, and similar fitness-related industries. Although the program does not fulfill teacher certification requirements, it would be of particular appeal to public school teachers (primary and secondary) in health and physical education, who are required by New York State to obtain a master's degree for continued employment. Positions in sales or marketing of medical, fitness, sports supplements and sportsrelated equipment may also be appropriate for students with this degree. In addition, the program will prepare students for doctoral programs in areas related to exercise science, and carry out research that advances the emerging body of literature in human health, fitness and performance.

According to the U.S. Department of Labor Bureau of Labor Statistics, employment of fitness trainers and instructors is expected to grow 10% from 2016 to 2026, outpacing the average for all occupations. The accelerating demand is attributed to businesses, government and insurance organizations becoming increasingly more cognizant of the benefits of health and fitness programs for their employees, and thereby incentives to join gyms and other types of health clubs is expected to increase the need for fitness professionals. Moreover, employment in the field is expected to grow as the general public continues to increase participation in organized sports as a form of entertainment, recreation, and physical conditioning, particularly aging baby boomers who are staying active later in life. In addition, physical education teachers in secondary schools are required to obtain a master's degree to maintain their jobs and gain promotion. Thus, our proposed program will be of prime interest to a broad range of individuals.

Demand for the program is evident in current Lehman students. The teaching faculty and student advisors in the program of Exercise Science at Lehman College regularly receive inquiries from students who express a desire to enroll in a Master's degree program in an exercise-related field of study. The Exercise Science program at Lehman College currently has over 300 declared majors and many students in the program are very much interested in pursuing a graduate degree in the field. In addition, the program has established itself as one of the premier research institutions in the field of strength and conditioning. The faculty have combined to publish well over 100 scientific papers in the past five years, and have spoken at numerous national and international conferences. As such, the faculty receives many inquiries from prospective students around the world about the availability of studying in a graduate-level exercise-related program at Lehman.

The proposed Graduate Degree Program in Exercise Science at Lehman College is consistent with the 90x30 initiative that seeks to double the number of high-quality degrees and certificates that students at the college will earn by the year 2030. As noted in the initiative, the Bronx ranks next to last in educational achievement of all 62 counties in New York State, with only 27.7% of residents attaining an associate's degree or higher. Our

proposed program will help to increase the employment, wages, and physical, mental, and emotional health and well-being of the community.

The proposed curriculum will be supported by the current Department of Health Sciences. After mapping out a program in advance with the Graduate Program Director, students must complete, with an average of B or better, 33 total credits in the Human Performance and Fitness degree program. All students will be required to take 18 credits in common core courses. Students wishing to pursue the thesis track option will take an additional 9 elective credits plus 6 credits of thesis. Students opting for the capstone track will take an additional 12 elective credits plus 3 credits of capstone.

The Human Performance and Fitness Program is currently expected to enroll 15 new students in the first year. It is expected that the revenues generated from the initial enrollment will make the program self-sustaining from the outset. Given the anticipated student enrollment moving forward, we will hire a full-time faculty line for a fourth faculty member after the first year of implementation. As more qualified students apply, we anticipate expanding enrollment to 25 new students in the second year and 30 new students in the third year. As student enrollment increases, an additional faculty member would be requested to help meet teaching demand.

ii. Abstract

The Exercise Science Program in the Department of Health Sciences at Lehman College of The City University of New York proposes to establish a master's degree program in Human Performance and Fitness leading to the Master of Science (MS) degree. It is proposed that the new program enroll its first students in the Fall of 2018. The proposed program aims to equip students with necessary skills and competencies required to function efficiently in the exercise science, and physical fitness and wellness. With personal health and fitness occupying much of our nation's attention, the new program - a graduate degree in Human Performance and Fitness, stressing and tying together the studies of anatomy, kinesiology, physiology, nutrition and exercise – is an excellent way to tap into a plentiful job market whose goal is the promotion of a healthier nation through exercise and fitness programs. The program will emphasize the preparation of the students for corporate and community fitness programs, health clubs, and similar fitness-related industries. Although the program does not fulfill teacher certification requirements, it is suitable for public school teachers (primary and secondary) in health and physical education for completion of their master's degree, who are required by New York State to obtain a graduate degree for continued employment. Positions in sales or marketing of medical, fitness, sports supplements and sports-related equipment may also be appropriate for students with this degree. In addition, the program will prepare students for doctoral programs in areas related to exercise science, and carry out research that advances the emerging body of literature in human health, fitness and performance.

1. Purposes and Goals

Lehman College of The City University of New York proposes to establish master's degree program in Human Performance and Fitness leading to the Master of Science (MS) degree. It is proposed that the new program enroll its first students in Fall 2018. This program will be offered under the sponsorship of the Department of Health Sciences. The proposed program aims to equip students with necessary skills and competencies required to function efficiently in the exercise science, physical fitness and wellness, and/or community health education profession. With personal health and fitness occupying much of our nation's attention, the new program – a major in Human Performance and Fitness, stressing and tying together the studies of anatomy, kinesiology, physiology, nutrition and exercise – is an excellent way to tap into a plentiful job market whose goal is the promotion of a healthier nation through exercise and wellness programs. The program will emphasize the preparation of the students for corporate and community fitness programs, health clubs, and similar fitnessrelated industries. Although the program does not fulfill teacher certification requirements, it would be of particular appeal to public school teachers (primary and secondary) in health and physical education, who are required by New York State to obtain a master's degree for continued employment. Positions in sales or marketing of medical, fitness, sports supplements and sports-related equipment may also be appropriate for students with this degree. In addition, the program will prepare students for doctoral programs in areas related to exercise science, and carry out research that advances the emerging body of literature in human health, fitness and performance.

2. Needs

A. National needs

Exercise science, the study of physiological and functional adaptations to movement, encompasses a wide variety of disciplines including, but not limited to: exercise physiology, sports nutrition, sport psychology, motor control/development, and biomechanics. The study of these disciplines is integrated into the academic preparation of exercise science professionals. Exercise science professionals work in health services and the fitness industry, and are skilled in evaluating health behaviors and risk factors, conducting fitness assessments, designing appropriate exercise prescriptions, and motivating individuals to modify negative health habits and maintain positive lifestyle behaviors for health promotion. They conduct these activities in health care, university, corporate, commercial and community settings where their clients participate in health promotion and fitness-related activities.

Physical activity is a positive modulator of health and wellness. A dose-response relationship has been shown between the number of hours performing leisure time physical activity, with those at the highest levels of participation showing a 37% lower risk of all-cause mortality compared to those who are sedentary ¹. Similar findings are seen for reductions in mortality from cardiovascular disease and cancer with increasing amounts of physical activity. Moreover, physical inactivity has a marked detrimental effect on the economy. Recent evidence shows that up to 2.6% of total direct health costs can be attributed to sedentary behavior, leading researchers to conclude that the promotion of physical activity is an important non-pharmaceutical action to substantially reduce the costs of public health care ².

The costs of inactivity are related, in large part, to negative consequences of sedentary behavior on body composition; specifically, the ratio of fat mass to lean mass. A national obesity epidemic exists in the United States, with more than 35.0% of men and 40.4% of women considered obese ³. Obesity is strongly associated with increased cardiometabolic risk, and it is an independent risk factor for all-cause mortality ⁴. Alarmingly, ~17% of 2- to 19-year-olds in the United States are classified as obese ⁵. Obese youth are at risk for short-term

medical and psychosocial consequences including abnormalities in growth, blood pressure, lipids, and glucose metabolism, as well as negative self-image and lower quality of life ⁶, ⁷. In addition, overweight youth are at risk for becoming obese and developing medical consequences including increased risk of subsequent diabetes, cardiovascular disease, hypertension, gallbladder disease, and osteoarthritis ⁸, ⁹. These health problems, which were extremely rare before adulthood, are now occurring at increasingly younger ages. Minority populations, including African-Americans and Hispanics, as well as individuals of low socio-economic status are particularly at risk for obesity and its associated cardiometabolic risks ¹⁰, ¹¹.

Moreover, an offshoot of the aging process is a gradual and progressive loss of muscle tissue. Human muscle mass and force reach peak levels between the second and fourth decades of life ¹². Thereafter, it is estimated that we lose approximately ½% of our muscle mass per year after the fourth decade of life, increasing to 1%–2% annually after the age of 50 and then accelerating to 3% annually after the age of 60 ¹³, ¹⁴. This age-associated loss of muscle has been termed sarcopenia. The rapidly aging population combined with progressively greater life expectancy makes sarcopenia a major public health concern ¹⁴. Maintenance of adequate muscle mass has been shown to play a primary role in preventing functional impairment as well as the onset of a multitude of chronic diseases ¹⁵. The decrease in muscular strength and power associated with sarcopenia is at the root of many of these health and wellness issues independent on age, size, physical activity, or co-morbidities, indicating a link between sarcopenia and generalized frailty ¹⁴. Muscle loss contributes to a reduced ability to carry out activities of daily living (ADLs), impairing the capacity for independent living and thereby increasing the burden to the caregiver and community ¹⁵, ¹⁶. Although aging in itself has a negative impact on muscle development over time, sarcopenia is largely a function of sedentarism; regimented exercise is widely considered to be the most effective strategy to combat the age-related loss of muscle and strength ¹⁷, ¹⁸.

The aforementioned facts indicate a vital role for fitness professionals to make an impact on society. This is borne out by the burgeoning number of career opportunities for those in the field. According to the U.S. Department of Labor Bureau of Labor Statistics, employment of fitness trainers and instructors is expected to grow 10% from 2016 to 2026, outpacing the average for all occupations ¹⁹. The accelerating demand is attributed to businesses, government and insurance organizations becoming increasingly more cognizant of the benefits of health and fitness programs for their employees, and thereby incentives to join gyms and other types of health clubs is expected to increase the need for fitness professionals. Moreover, employment in the field is expected to grow as the general public continues to increase participation in organized sports as a form of entertainment, recreation, and physical conditioning, particularly aging baby boomers who are staying active later in life.

The health and fitness industry is a dynamic and expanding field. As health care in America continues to remodel itself, exercise science professionals are certain to play an expanding role as providers of many fitness, health and wellness services within a wide variety of delivery systems. The elimination of negative health behaviors for some segments of the population will guide much of the planning and implementing of appropriate wellness programs. Perhaps one of the more exciting challenges facing the exercise science professional going forward is knowing that many changes are coming and that possessing higher levels of education will enhance their career options.

A major focus of the Healthy People 2020 initiative is to improve the health of all Americans through the promotion of increased physical activity, which is stated to "improve the health and quality of life of Americans

of all ages, regardless of the presence of a chronic disease or disability" ²⁰. As such, the private, public and government sectors are destined to become pivotal players in helping Americans choose healthy lifestyles, while offering more employment opportunities for the exercise science professional. In addition, the marketplace is becoming much more global, offering several international career opportunities in worksite health promotion centers that provide health education, fitness programming, fitness assessment, lifestyle activities and behavior modification programs.

A master's degree is a pre-requisite for many exercise-related jobs. Most of the higher paying positions in the field require graduate level training, and the ability to advance in the field is often predicated on educational background. For example, a career as a strength and conditioning coach at Division 1 and professional levels almost invariably requires a master's degree to interview for the position. Similarly, teachers in physical education are required to obtain a master's degree to continue employment, even though they are already have achieved teaching certification. Moreover, fitness trainers who possess a master's degree receive higher pay at many organizations than those who do not, and the ability to rise to managerial levels is often predicated on educational status. Employment titles of graduates in the program include but are not limited to: Strength and Conditioning Coach; Fitness Manager; Sports Scientist; Master-Level Personal Trainer; Chief Science Officer (fitness/supplement-related company); and Corporate Wellness Coordinator. Thus, a master's degree is very important both to employment and career advancement in the field.

B. Regional and Local Needs

Recent statistics from the Robert Wood Johnson Foundation show that the Bronx is the least healthy county in New York State ²¹. It ranks last in quality of life, with 28% of Bronx residents reporting poor to fair health; no other borough in New York City (NYC) exceeded 17% in this metric (see Figure 1). Moreover, according to the Bronx Healthy REACH, a project of the New York City based Institute for Urban Family Health that addresses racial disparities in health outcomes in areas of the southwest Bronx where the population is more than 95% Black and Hispanic, residents of the Bronx have the greatest percentage of obesity and diabetes among residents of all other NYC residents. These statistics are borne out in 2017 data showing adult obesity rates (30%) and physical inactivity levels (31%) in Bronx County are far above the State average and higher than any other borough ²¹ (see Figures 2 and 3).

The combination of obesity and physical inactivity has a decidedly negative effects on their cardio-metabolic health, and this fact is consistent with those who reside in the Bronx. According to the Center for Disease Control, an estimated 12.3% of residents are diagnosed as diabetic; more than any other borough ²² (See Figure 4). Furthermore, among all diabetic Bronx residents, the greatest numbers reside in neighborhoods populated primarily by African-American and Hispanic residents, with diabetes being most prevalent among blacks and Hispanics in all of New York City.

Alarmingly, the health crisis in the Bronx extends to the borough's youth. In NYC, over 20% of students in elementary school have a body mass index greater than the 95th percentile, and the rate is 31% among Hispanic students, who comprise the majority of students in the Bronx ²³. This index percentile places the students at great risk for coronary heart disease and other associated conditions. *Based on the aforementioned information, there is a dire need in the Bronx for qualified exercise science professionals who can work to help others reduce modifiable disease risk factors and improve quality of life.*

Figure 1

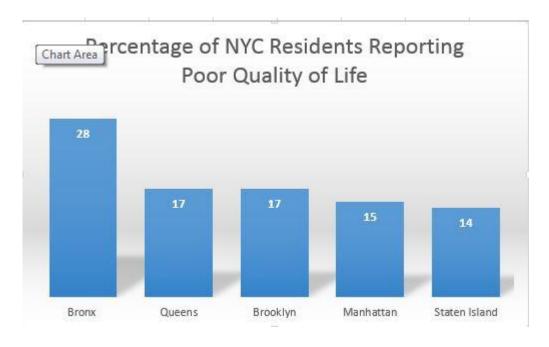


Figure 2

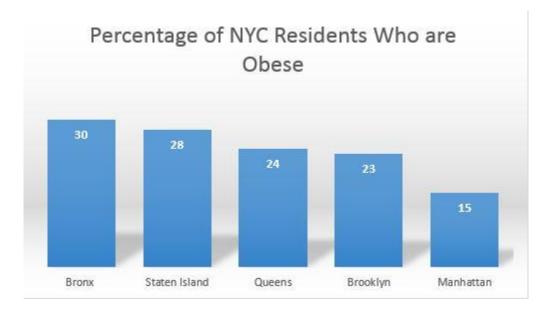


Figure 3

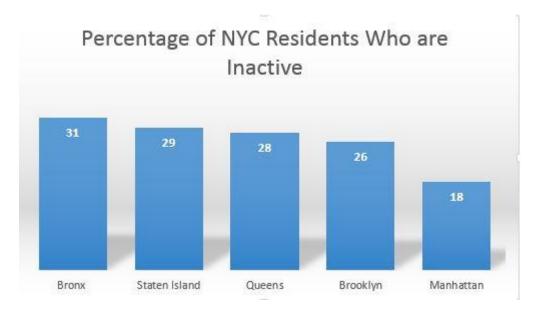
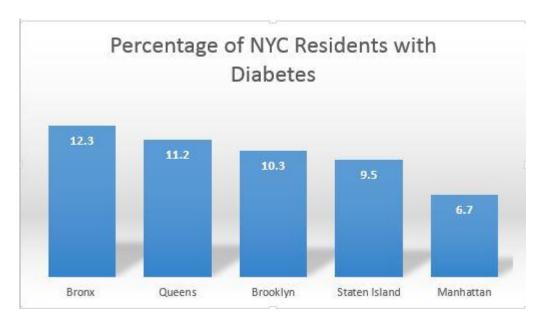


Figure 4



C. Institutional Needs

The Bronx is in dire need of qualified professionals trained in exercise science to meet the pressing health and fitness needs of its unique population. A master's degree is the acknowledged advanced degree for health and fitness professionals. It is a credential that sets recipients apart from other practitioners, and is generally required for attaining mid- to high-level positions in fitness and wellness, as well as attaining higher pay in existing positions. Although the program does not fulfill teacher certification requirements, it would be of particular appeal to public school teachers (primary and secondary) in health and physical education, who are required by New York State to obtain a master's degree for continued employment. In addition, a master's degree is generally a pre-requisite for entry into doctoral programs for those who seek careers as professors and/or researchers in the field. There are a number of universities across the country that provide programs related to human performance and fitness, lending credence to the popularity of this degree.

Currently, there is no institution located in the Bronx that provides a master's degree in any exercise science-related area. Within the City University of New York, the only institutions awarding such a degree are Queens College (MS in Nutrition and Exercise Sciences) and Brooklyn College (MS in Exercise and Sport Science). Further, the program proposed herein would be the only graduate degree program in New York City specifically developed with a focus on enhancing human performance and fitness. This not only has applicability to disease prevention, but also to promoting greater athletic abilities, which is a primary goal of an increasing percentage of the population and of particular relevance to youth fitness. Importantly, a Lehman College master's degree program in Human Performance and Fitness would offer academic training where its residents live and work, without having to travel 3 or more hours per day to attend Brooklyn or Queens for that education and training.

As noted above, the Lehman College Master's Degree Program in Human Performance and Fitness would differ from the programs at Brooklyn College and Queen's College insofar as it will be more specific to the area of human performance, emphasizing resistance training and coaching theory as well as sports management/marketing. The programs at the other institutions are more focused on cardiorespiratory fitness and rehabilitation. There is a big need and demand in the methodology of coaching and training principles in the Bronx and its surrounding area since many physical education teachers and health educators coach their school teams but do not have enough foundation to do so effectively. Our program will provide the requisite advanced knowledge about training in different sports, leading to better coaching and management of athletes. Moreover, personal trainers and other fitness professionals require this knowledge to work with a growing-segment of the population who have athletic-related fitness aspirations.

The proposed graduate degree program in Human Performance and Fitness at Lehman College is consistent with the 90x30 initiative that seeks to double the number of high-quality degrees and certificates that students at the college will earn by the year 2030. As noted in the initiative, the Bronx ranks next to last in educational achievement of all 62 counties in New York State, with only 27.7% of residents attaining an associate's degree or higher. Our program will help to increase the employment, wages, and physical, mental, and emotional health and well-being of the community.

3. Students

A. <u>Demand for Master's Degree in Human Performance and Fitness</u>

The teaching faculty and student advisors in the program of Exercise Science at Lehman College regularly receive inquiries from students who express a desire to enroll in a Master's degree program in an exercise-

related field of study. The Exercise Science program at Lehman College currently has over 300 declared majors and many students in the program are very much interested in pursuing a graduate degree in the field. In addition, the program has established itself as one of the premier research institutions in the field of strength and conditioning. The faculty have combined to publish well over 100 scientific papers in the past five years, and have spoken at numerous national and international conferences. As such, the faculty receives many inquiries from prospective students around the world about the availability of studying in a graduate-level exercise-related program at Lehman.

To assess interest of undergraduate exercise science students in the proposed master's degree program, we carried out a survey in four of our upper level courses (EXS 423, EXS 424, EXS 425, and EXS 430) asking the following questions:

1.	Would you be interested in enrolling in the program?
	a. Yes
	b. No
2.	If yes, what time period would you consider enrolling
	a. Within 1 year graduation
	b. Within 2 years graduation
	c. Within 3 years graduation
3.	If yes, what would your primary reason be for attending
	a. Better pay
	b. Career advancement
	c. Personal knowledge

A total of 74 students responded to the survey. Of the respondents, 70% stated that they would be interested in attending the program. A majority (69%) of those interested in attending indicated a timeline for applying of 1 year after graduation; 23% indicated a timeline of 2 years and 8% indicated a timeline of 3 years. The primary reasons given for attending were career advancement (75%), better pay (13%) and personal knowledge (12%). These findings highlight the overwhelming interest in the program from current Lehman exercise science students.

It is our intention to admit a class of 15 students in the fall semester of the first year, with a smaller number of students entering in the spring semester and then progressively increasing over time as the program gains popularity. As shown in Table 1, we anticipate that the program will approach 90 enrolled students after 5 years. The projected enrollment is based on the number of inquiries that we have received over the past several years, the marketing efforts that we will pursue, and the anticipated publicity that is generated from the program's success while factoring in an attrition rate of 1 student per semester.

	2018-19	2019-20	2020-21	2021-22	2022-23
Fall New	15	10	15	20	25
Fall Continuing	-	18	23	36	48
Fall Total	15	28	38	56	73
Spring Continuing	14	27	32	43	56
Spring New	5	12	15	20	30

Spring Total	19	39	47	63	86

Table 1: 5-Year Projected Enrollment

B. Recruitment Strategy

The targeted student body for the Lehman College Graduate Program in Human Performance and Fitness will focus on students graduating from the Lehman College Exercise Science Undergraduate Program, as well targeting those graduating from other exercise-related undergraduate programs around the world. A mixed marketing approach will be developed in conjunction with the Office of Graduate Admission to target current educators, fitness organizations, pharmaceutical companies, undergraduate exercise science directors and healthcare organizations. Social media platforms will also be used to target prospective students and make them aware of the opportunities for graduate studies in Human Performance and Fitness at Leman. In addition, we will send emails to the administration at secondary schools in the Tri-State area so they can let teachers in health and physical education know about the possibility of obtaining their master's degree in our program to meet the requirements for continued employment.

4. Curriculum

The proposed curriculum will be supported by the current Department of Health Sciences. After mapping out a program in advance with the Graduate Program Director, students must complete a minimum of 33 credits in Human Performance and Fitness, attaining an average of B or better. All students will be required to take 18 credits in common core courses. Students will then have two options: A 6-credit thesis consisting of 9 elective credits or a 3-credit capstone project consisting of 12 elective credits. Students will be encouraged to enroll in a full course load (9 credits) each semester to facilitate completion of the program in four semesters. Consistent with the Lehman undergraduate/graduate initiative, students enrolled in the undergraduate exercise science program at Lehman with a GPA of 3.0 or higher and who have taken >90 credits will be permitted to take up to 12 credits of graduate classwork and receive credit for the classes at the master's degree level if/when they matriculate into the Human Performance and Fitness program.

A. Admission Requirements

- Bachelor's degree (or its equivalent) from an accredited college or university
- Demonstration of the potential to pursue graduate study successfully—that is, attainment of a minimum undergraduate Grade Point Average (GPA) of 3.0 in the undergraduate record as a whole and a 3.0 in courses specific to exercise science. Extraordinary circumstances for applicants with a lower GPA will be considered on a case-by-case basis at the discretion of the program director.
- A minimum of 30 credit hours in exercise-related coursework. Those who do not meet these requirements can apply for special circumstances and admission will be considered on case-by-case basis.
- Submission of three letters of recommendation, at least two of which must be from a person directly involved in the field of exercise science, either as a professor, researcher, or practitioner
- Submission of a personal statement of approximately 500 words indicating as precisely as possible the applicant's preparation for master's work and interest in pursuing a career in the fitness field

B. Proposed Graduate Curriculum

The requirements of the proposed Master of Science degree program in Human Performance and Fitness are as follows:

Option 1: Thesis

Core Courses	18 Credits
EXS 501 Physical Activity, Exercise and Fitness	3 credits
EXS 502 Advanced Exercise Physiology	3 credits
EXS 503 Advanced Research Methods in Exercise Science	3 credits
EXS 504 Advanced Exercise Testing and Prescription	3 credits
EXS 505 Advanced Sports Nutrition	3 credits
EXS 506 Applied Training Methodologies	3 credits
Elective Courses	9 Credits
EXS 615 Advanced Biomechanics and Kinesiology	3 credits
EXS 616 Advanced Motor Learning	3 credits
EXS 626 Fitness Management and Marketing	3 credits
EXS 665 Psychology of Sport	3 credits
**EXS 680 Special Topics in Exercise Science	3 credits
Thesis	6 Credits
EXS 790 Thesis Workshop 1	3 credits
EXS 791 Thesis Workshop 2	3 credits
Option 2: Capstone Project	
Core Courses	18 Credits
EXS 501 Physical Activity, Exercise and Fitness	3 credits
EXS 502 Advanced Exercise Physiology	3 credits
EXS 503 Advanced Research Methods in Exercise Science	3 credits
EXS 504 Advanced Exercise Testing and Prescription	3 credits
EXS 505 Advanced Sports Nutrition	3 credits

EXS 506 Applied Training Methodologies	3 credits
Elective Courses	12 Credits
EXS 615 Advanced Biomechanics and Kinesiology	3 credits
EXS 616 Advanced Motor Learning	3 credits
EXS 626 Fitness Management and Marketing	3 credits
EXS 665 Psychology of Sport	3 credits
**EXS 680 Special Topics in Exercise Science	3 credits
Capstone Project	3 Credits
EXS 795 Capstone Project Workshop	3 credits
C. Proposed Sequence of Courses (Thesis Option) Semester 1:	
EXS 501 Physical Activity, Exercise and Fitness	
EXS 502 Advanced Exercise Physiology	
EXS 503 Advanced Research Methods in Exercise Science	
Semester 2: EXS 504 Advanced Exercise Testing and Prescription	
EXS 505 Advanced Sports Nutrition	
EXS 506 Applied Training Methodologies	
Semester 3: EXS 615 Advanced Biomechanics and Kinesiology	
EXS 665 Psychology of Sport	
EXS 790 Thesis Workshop 1	
Semester 4: EXS 626 Fitness Management and Marketing	
EXS 791 Thesis Workshop 2	
<u>D. Proposed Sequence of Courses (Capstone Option)</u> Semester 1:	

EXS 501 Physical Activity, Exercise and Fitness

EXS 502 Advanced Exercise Physiology

EXS 503 Advanced Research Methods in Exercise Science

Semester 2:

EXS 504 Advanced Exercise Testing and Prescription

EXS 505 Advanced Sports Nutrition

EXS 506 Applied Training Methodologies

Semester 3:

EXS 615 Advanced Biomechanics and Kinesiology

EXS 665 Psychology of Sport

EXS 616 Advanced Motor Learning

Semester 4:

**EXS 680 Special Topics in Exercise Science

EXS 795 Capstone Project Workshop

**denotes existing course

E. Thesis Requirement (Option 1)

Students choosing the thesis option will be required to submit a final thesis on a research study on a topic of their choice that must be approved by a faculty advisor. Students will be advised to secure a working relationship with a faculty advisor whose area of expertise aligns with their thesis interest by the time they have completed 15 credits in the program. The thesis must be a study of publishable quality; students in this option will be encouraged and provided with appropriate support to submit their project for publication in a refereed journal. The final thesis will be read by the faculty advisor and a second reader approved by the Graduate Program Director. Two copies of the thesis approved by the faculty advisor—one in electronic format (.pdf), one in print—will be submitted to the Graduate Program Director.

F. Capstone Requirement (Option 2)

Students choosing the capstone option will be required to submit a final project on a topic of their choice. Students will be advised to secure a working relationship with a faculty advisor whose area of expertise aligns with their capstone interest by the time they have completed 15 credits in the program. The project should be either a narrative or systematic review of literature; meta-analysis of data can also be included as part of the capstone project. The project must be of publishable quality; students in this option will be encouraged and provided with appropriate support to submit their project for publication in a refereed journal. The final project will be read by the faculty advisor and a second reader approved by the Graduate Program Director. Two copies of the project approved by the faculty advisor—one in electronic format (.pdf), one in print—will be submitted to the Graduate Program Director.

5. Cost Assessment

A. Faculty

Lehman College has three full-time faculty members in exercise science as listed in Table 2 below. Each member is fully qualified to teach the courses in the program. In addition, the exercise science program has 6 adjunct faculty with a minimum of a master's degree in an exercise-related field.

Table 2: Lehman College Faculty in Exercise Science

Name	Rank
Gul Tiryaki-Sonmez	Professor
Brad Schoenfeld	Assistant Professor
Andrew Alto	Instructor

New Faculty

We plan to hire a full-time lecturer (see Appendix F for qualifications, etc.) line for a fourth faculty member in the Graduate Program in Human Performance and Fitness after the first year of implementation. The Program is currently expected to enroll 15 new students in the first year. As more qualified students apply, we anticipate expanding enrollment to 25 new students in the second year and 30 new students in the third year. As student enrollment increases, an additional faculty member would be requested.

Form SED D 7: Faculty Biographical Sketches

Course Title	# credits	Faculty Member Assigned to each Course	Highest Earned Degree and Discipline; College or University	Relevant Occupational Experience	Relevant Other Experience, Certificates	Recent Scholarly Contributions
EXS 601 Physical Activity, Exercise and Fitness	3	Gul Sonmez	PhD in Exercise Science, University of New Mexico	Experience in coaching athletes		Numerous publications in peer-reviewed journals, plus presentations, and invited talks
EXS 602 Advanced Exercise Physiology	3	Gul Sonmez	PhD in Exercise Science, University of New Mexico	Experience in coaching athletes		Numerous publications in peer-reviewed journals, plus presentations, and invited talks
EXS 603 Advanced	3	Brad Schoenfeld	PhD in Health Promotion and	Experience in personal	Certified Strength and	Numerous publications in

	Т	1	1		I	1
Research			Wellness,	training,	Conditioning	peer-reviewed
Methods in			Rocky	exercise and	Specialist	journals and
Exercise			Mountain	sports		textbooks,
Science			University	nutrition		plus awards,
				consultant to		presentations,
				amateur and		and invited
				professional		talks
				sports teams		
EXS 604	3	Gul Sonmez	PhD in	Experience in		Numerous
Advanced			Exercise	coaching		publications in
Exercise			Science,	athletes		peer-reviewed
Testing and			University of	unifotos		journals, plus
Prescription Prescription			New Mexico			presentations,
Trescription			THE WINICKIES			and invited
						talks
EXS 605	3	Brad	PhD in Health	Evnoriones in	Certified	Numerous
	3			Experience in		
Advanced		Schoenfeld	Promotion and	personal	Strength and	publications in
Sports			Wellness,	training,	Conditioning	peer-reviewed
Nutrition			Rocky	exercise and	Specialist	journals and
			Mountain	sports		textbooks,
			University	nutrition		plus awards,
				consultant to		presentations,
				amateur and		and invited
				professional		talks
				sports teams		
EXS 606	3	Brad	PhD in Health	Experience in	Certified	Numerous
Applied		Schoenfeld	Promotion and	personal	Strength and	publications in
Training			Wellness,	training,	Conditioning	peer-reviewed
Methodologies			Rocky	exercise and	Specialist	journals and
			Mountain	sports		textbooks,
			University	nutrition		plus awards,
				consultant to		presentations,
				amateur and		and invited
				professional		talks
				sports teams		
EXS 615:	3	Andrew Alto	MA in Health	Experience in	Certified	Refereed
Advanced			Education and	personal	Strength and	paper in
Kinesiology			Promotion,	training	Conditioning	review plus
and			Lehman	8	Specialist	conference
Biomechanics			College		r · · · · · · · · · · · · · · · · · · ·	presentations
EXS 616:	3	Andrew Alto	MA in Health	Experience in	Certified	Refereed
Advanced			Education and	personal	Strength and	paper in
Motor			Promotion,	training	Conditioning	review plus
Learning and			Lehman		Specialist	conference
Performance			College		Specialist	presentations
EXS 626:	3	Gul Sonmez	PhD in	Experience in		Numerous
Fitness		Sui Donniez	Exercise	coaching		publications in
Management			Science,	athletes		peer-reviewed
and			University of	auncies		journals, plus
			New Mexico			
Marketing			INEW MEXICO			presentations,
						and invited
EVC (CE.	3	Cul Carre	DhD :	Erreguisas i		talks
EXS 665:	3	Gul Sonmez	PhD in	Experience in		Numerous
Psychology of	1	1	Exercise	coaching	1	publications in
Sport			Science,	athletes		peer-reviewed

			University of New Mexico			journals, plus presentations, and invited talks
EXS 680: Special Topics in Exercise Science	3	Brad Schoenfeld	PhD in Health Promotion and Wellness, Rocky Mountain University	Experience in personal training, exercise and sports nutrition consultant to amateur and professional sports teams	Certified Strength and Conditioning Specialist	Numerous publications in peer-reviewed journals and textbooks, plus awards, presentations, and invited talks
EXS 790: Thesis Workshop Thesis Workshop 1	3	Brad Schoenfeld	PhD in Health Promotion and Wellness, Rocky Mountain University	Experience in personal training, exercise and sports nutrition consultant to amateur and professional sports teams	Certified Strength and Conditioning Specialist	Numerous publications in peer-reviewed journals and textbooks, plus awards, presentations, and invited talks
EXS 791: Thesis Workshop 2	3	Brad Schoenfeld	PhD in Health Promotion and Wellness, Rocky Mountain University	Experience in personal training, exercise and sports nutrition consultant to amateur and professional sports teams	Certified Strength and Conditioning Specialist	Numerous publications in peer-reviewed journals and textbooks, plus awards, presentations, and invited talks
EXS 795: Capstone Project Workshop	3	Brad Schoenfeld	PhD in Health Promotion and Wellness, Rocky Mountain University	Experience in personal training, exercise and sports nutrition consultant to amateur and professional sports teams	Certified Strength and Conditioning Specialist	Numerous publications in peer-reviewed journals and textbooks, plus awards, presentations, and invited talks

Form SED D 8: Status of Each Faculty Member Listed in the Previous Pages

Faculty member	Title of position at Lehman College	Full-time (FT) or adjunct (Adj) at Lehman	If part-time in the program, specify other responsibilities
Gul Sonmez	Professor	FT	N/A
Brad Schoenfeld	Assistant Professor	FT	N/A

Andrew Alto Instructor	FT	N/A	
------------------------	----	-----	--

Form SED D 9: Number and Title of New Positions to Be Established and Minimum Oualifications

Title of Position	# New Positions	Minimum Qualifications
Lecturer	1	PhD in exercise-related coursework

B. Facilities and Equipment

No additional space and equipment will be required for initiation of the program. The Lehman Human Performance Laboratory is a state-of-the-art facility that has received substantial funding from grants. We currently have several hundred thousand dollars-worth of equipment that allows sophisticated exercise-related testing and training for both practical and research purposes. Consistent with CUNY guidelines, we will seek to develop partnerships with supplement companies, equipment companies, hospitals, and other organizations to help pay for additional equipment, sponsorships of student travel for conferences and presentations, and other relevant expenses that may arise.

C. <u>Library and Instructional Materials:</u>

Lehman College's Leonard Lief Library is housed in a modern, four-story building with an online catalog and circulation system providing access to over 200 online subscription databases. More than 300 state-of-the-art computer workstations are accessible for student use with full Internet access, as well as iPads, laptops, and eReaders available for loan at the Circulation-Reserve Desk. The Graduate Research Room is reserved exclusively for graduate student use, while the Access and Technology Center provides assistive technology for students with special needs. The Library's homepage [http://www.lehman.edu/library/] links to the CUNY+ online library catalog, licensed electronic resources, electronic journals, and eBook packages.

The monograph collection of over 362,674 volumes is supplemented by 652,700 microforms (including ERIC documents), 95,112 electronic journals, and over 554,885 electronic books. The Library is a designated Depository for state and federal government documents. The research collection is augmented to support a robust undergraduate and graduate curriculum. Interlibrary loan service and CUNY's own library intraborrowing system are available to members of the community.

In addition to general and specialized non-circulating reference collections, the Library offers the Reserve collection including textbooks for requested courses. Specialized service areas include the Periodicals Room, well-equipped instructional labs, and Bronx History Archives. Reference librarians support student research during library hours, as well as offer special Consultations and online reference chat. The Library has an active instructional program instilling tenets of information literacy and critical evaluation of information sources.

The Library licenses a wide array of exercise-related journals from major publishers (Elsevier, Lippincott Williams & Wilkins, and Wiley), providing free access to thousands of peer-reviewed literature articles. When an article is not immediately available, it can usually be fulfilled via Interlibrary Loan.

D. Budget Tables

The new program will not affect the needs of Lehman College Library or Lehman's central information resources. The projected costs and revenues are indicated below in Tables 3 and 4.

The Projected Revenues below use the figure of \$440 per graduate credit. It is expected that the Human Performance and Fitness Program will be self-sustaining from the outset and given the anticipated student enrollment could hire an additional faculty member after the first year.

 $\label{eq:Table 3}$ Projected Expenditures for the Proposed MS Program in EXS *

Expenditures	1 st Year 2018-2019 Academic Year	2 nd Year 2019-2020 Academic Year	3 rd Year 2020-2021 Academic Year	4 th Year 2021-2023 Academic Year	5 th Year 2023-2024 Academic Year
Faculty	Treducinie Tear	Treadeline Tear	Treuwerine Teur	Treateme Tear	Treateme Tear
New Resources	\$11,000 adjunct faculty	Salary for one full-time lecturer: \$52,258+ fringe benefits 25,606 + start-up package 10,000	Salary for one full-time lecturer: \$52,258 + fringe benefits 25,606	Salary for one full- time lecturer: \$52,258+ fringe benefits 25,606	Salary for one full- time lecturer: \$52,258 + fringe benefits 25,606
		Total this year= \$87,864	Total this year= \$77,864	Total this year= \$77,864	Total this year= \$77,864
Equipment New Resources	Computer hardware: \$3,000 Relevant software: \$1,000 Supplies: \$1,000 TOTAL: \$5,000	0	0	0	0
Library	Additional Users: \$500	Additional Users: \$500	Additional Users: \$500	Additional Users: \$500	Additional Users: \$500
Other New Resources	Advertising and office supplies \$1,250	Advertising and office supplies \$1,250	Advertising and office supplies \$1,250	Advertising and office supplies \$1,250	Advertising and office supplies 1,250
Total New Resources	\$17,750	\$89,614	\$79,614	\$79,614	\$79,614

^{*}Salary projected at \$52,258, as per current PSC-CUNY Agreement. The amount is kept constant for five years as it coincides with the last step before longevity. Fringe benefits calculated at 49% of projected salary.

TABLE 4

Projected Revenues for the Proposed Program *

Revenues	1 st Year 2018-2019 Academic Year	2 nd Year 2019-2020 Academic Year	3 rd Year 2020-2021 Academic Year	4 th Year 2021-2023 Academic Year	5 th Year 2023-2024 Academic Year
Tuition					
Revenue:					
01. From Existing	0	0	0	0	0
Resources					
02. From New	\$137,836	\$271,618	\$344,590	\$482,426	\$644,586
Sources					
03. Total	\$137,836	\$271,618	\$344,590	\$482,426	\$644,586
State Revenue:					
04. From Existing	No formula for				
Resources	additional aid				
05. From New					
Sources	0	0	0	0	0
06. Total					
	0	0	0	0	0
Grand Total:					
07. From New	\$137,836	\$271,618	\$344,590	\$482,426	\$644,586
Sources					
TOTAL	\$137,836	\$271,618	\$344,590	\$482,426	\$644,586

^{*}Formula for per student tuition revenue: number of matriculated full-time students x \$4,054 per semester tuition and fees for NYS residents. Revenues are likely to be higher since some students will be out-of-state or international.

6. Evaluation

A. <u>Internal Evaluation</u>

Currently, the Health Sciences Department has a rigorous system for assessing and monitoring program outcomes. The proposed Human Performance and Fitness master's degree program will become another component in the Department's ongoing assessment plan. The following are the evaluation strategies that will be used to assess the proposed Human Performance and Fitness program:

Student Outcomes

It is essential to ensure that students are achieving high standards of learning in the program. The following tools will be employed to evaluate whether these standards are being met: individual course-based evaluations; grade point averages; and theses/capstone projects.

Course-based Evaluations

Faculty will evaluate students' performance based on the pre-determined objectives of each course. Methods of evaluation will include examinations, projects, presentations, etc., which will be specified in the course syllabi. Course methods will be reviewed each semester to ensure that students are achieving the desired mastery of knowledge, and relevant changes will be made based on instructor insights and student feedback from the course/instructor assessments.

Grade Point Average

All students enrolled in the Human Performance and Fitness master's degree program will be required to maintain an overall 3.0 (B) grade point average (GPA) to maintain active status in the program. The program director will be responsible for ensuring that students and intervening with those students who are in danger of falling below the minimum GPA requirement.

Thesis/Capstone Project

Students will be required to complete either a thesis or capstone project for successful completion of the program. Students must receive a B or higher grade on this requirement for graduation. Students will act in collaboration with their mentor/faculty advisor to choose an appropriate problem to research and propose a strategy to study the problem. The ability to successfully carry out such a research-oriented endeavor will display competency in the application of the knowledge, skills and dispositions acquired throughout their coursework.

Program Graduates

In the last semester prior to graduation, students in the Human Performance and Fitness program will be asked to complete an exit survey that assesses their overall experience in the program, from initial application to the filing for graduation. Suggestions for improving the academic, social, and experienced-based components of the program will be solicited from each student. Collected information and feedback will be shared with the relevant offices (e.g., graduate admissions, academic support, academic departments, etc.) to facilitate continuous program and operations improvement. In addition, we will attempt to follow up with student career achievements over time. This will entail sending student's regular emails to ask about their career trajectory. The information will be entered into a spreadsheet and the faculty will assess to determine whether needs are being met and/or if other opportunities warrant revisions/additions to program curriculum.

Faculty Performance

Faculty will be evaluated according to a three-tier process that includes: 1) an annual administrative evaluation by the department chair of the individual's scholarly activities and overall contributions to the department, the school, and the college; 2) peer evaluation of teaching; and 3) student course and teaching evaluations.

Administrative Evaluation

Each year, faculty members are required to submit an updated CV comprising their scholarly achievements (publications, grant activity, presentations, etc) to a data management site (Digital Measures). Moreover, untenured faculty undergo an annual evaluation meeting with the department chair that entails a review of their CV along with plans for new research and grants. Part of the chair's role in the process is to support the untenured faculty in their quest to conduct innovative research that furthers their role as a leader-educator at the college. The chair also evaluates the faculty member on three areas of service: college-wide service, school-wide service, and department-wide service. If the faculty member is lacking in any of these areas, the chair makes recommendations for specific committee work and/or projects for the member to explore.

Peer Evaluation

Each semester, untenured full-time and all part-time faculty members are observed by a peer and evaluated for their teaching competency. The process involves the peer sitting in on a class and providing written commentary on the teaching performance of the instructor, including an assessment of the instructor's strengths and weaknesses. The instructor is then provided with a copy of the written report and given an opportunity to discuss the observations, ask follow up questions, and raise any perceived issues with the report. This collaborative effort provides a systematic means to foster ongoing improvements in education in the program.

Course and Instructor Evaluation

Each semester, students enrolled in the Human Performance and Fitness master's degree program will be afforded the opportunity to complete a course/instructor assessment through the Student Evaluation of Teaching and Learning (SETL) online survey. This survey provides quantifiable data based on a Likert-type scale, allowing objective comparisons based on mean scores. The results of these evaluations will be tabulated and then shared with the dean, department chair, and faculty member. Faculty strengths and weaknesses, as well as suggestions for improvement, will be discussed between the department chair and faculty member during the annual evaluation meeting. Appropriate professional development plans will be created based on mutual agreement between the chair and faculty members.

B. External Evaluation

(Please see Appendix B for the full CV of the external reviewer; Appendix C for the completed program review and; Appendix D for our response to the review.)

Appendix A

Courses and Syllabi in Human Performance and Fitness

- **EXS 501 Physical Activity, Exercise and Fitness**. *3 hours, 3 credits*. Exploration of the role of physical activity and exercise in the development and maintenance of health and fitness. Guidelines for physical activity and exercise in relation to health benefits are examined across the entire lifespan (infancy, childhood and adolescence, adulthood, and older ages), with consideration to the broader implications of their impact on local and global challenges.
- **EXS 502 Advanced Exercise Physiology**. *3 hours, 3 credits*. Human anatomy and physiology as related to physical activity, exercise, and work. Study of the musculoskeletal, endocrine, cardiovascular, and pulmonary systems; bioenergetics; and body composition, anatomy and physiology of aging, and health-related benefits.
- **EXS 503 Advanced Research Methods in Exercise Science**: *3 hours, 3 credits.* Concepts of research, statistics and evaluation in exercise science. Techniques of measurement and methods of analyzing and interpreting data.
- **EXS 504 Advanced Exercise Testing and Prescription**. *3 hours*, *3 credits*. Principles of fitness and the development of exercise programs to enhance health and/or human performance in a variety of settings. Methods of evaluating physiological adaptation to exercise, using laboratory and field experiences.
- **EXS 505 Advanced Sports Nutrition**. *3 hours, 3 credits*. Nutritional and metabolic requirements of physical activity. The health and well-being benefits of an optimal diet-exercise regimen for physical activity, exercise, and sport participation will be emphasized.
- **EXS 506 Applied Training Methodologies**. *3 hours, 3 credits*. Applications of strength and conditioning theories and training principles including fitness testing, protocol design and goal assessment to clients in diverse exercise and fitness settings.
- **EXS 615: Advanced Kinesiology and Biomechanics**. Study and application of anatomic and mechanical principles of human movement.
- **EXS 616: Advanced Motor Learning and Performance.** Effects of psychological, social maturational, and neurophysiological factors on the learning and performance of movement patterns.
- **EXS 626: Fitness Management and Marketing.** 3 hours, 3 credits. Management and marketing principles as they relate to budget, facility design, purchasing, scheduling, programming, and personnel issues in the field of exercise science and wellness.
- **EXS 665: Psychology of Sport.** *3 hours, 3 credits.* Theories, concepts, and intervention techniques of sport psychology. Topics covered include motivation theory applied to sport, team dynamics, psychological skills training, the psychology of sport injury, and burnout in sport.

**EXS 680: Special Topics in Exercise Science. 3 hours, 3 credits. Examination of various topics in exercise science. Topics to be announced each semester.

EXS 790: Thesis Workshop 1: *3 hours, 3 credits.* Development of competency in effective scientific writing and critical analysis of research.

EXS 791: Thesis Workshop 2: *3 hours, 3 credits.* Design and execution of a publishable research study on an exercise-related topic that demonstrates content expertise

EXS 795: Capstone Project Workshop: 3 hours, 3 credits.

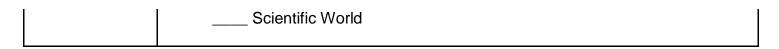
^{**}denotes existing course

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 501
Number	
Course Title	Physical Activity, Exercise and Fitness
Description	Exploration of the role of physical activity and exercise in the development and maintenance of health and fitness. Guidelines for physical activity and exercise in relation to health benefits are examined across the entire lifespan (infancy, childhood and adolescence, adulthood, and older ages), with consideration to the broader implications of their impact on local and global challenges.
Pre/ Co Requisites	Departmental Permission
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute (e.g. Writing Intensive, WAC, etc)	N/A
General	X Not Applicable
Education	Required English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society



3. Rationale:

EXS 501 is the entry-level course for graduate students that provides the basis for the role of exercise in overall health and wellness

4. <u>Learning Outcomes (By the end of the course students will be expected to)</u>:

- Interpret relationship between physical activity, exercise, fitness and health
- Articulate physical activity recommendations and levels
- Display an understanding of physical activity behavior (and experience of specialist measurement methods)
- Demonstrate competence in assessment of health related fitness (and experience of specialist measurement methods)
- Demonstrate competence in assessment of body composition (and experience of specialist measurement methods)
- Discuss nuances of the psychology of physical activity and health
- Describe physical activity, exercise, fitness and health issues in individuals aged 0-18 years
- Describe sedentary behavior
- Articulate determinants of physical activity across the life-span

5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 502
Number	
Course Title	Advanced Exercise Physiology
Description	Human anatomy and physiology as related to physical activity, exercise, and work.
	Study of the musculoskeletal, endocrine, cardiovascular, and pulmonary systems;
	bioenergetics; and body composition, anatomy and physiology of aging, and
	health-related benefits.
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	V Nat Analizatela
General	X Not Applicable
Education	Required English Composition
Component	Mathematics
	Science
	Ocience
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

Exercise physiology is a foundational course in exercise science and an understanding of its nuances is essential to optimizing exercise prescription.

4. <u>Learning Outcomes (By the end of the course students will be expected to)</u>:

- Display an understanding of concepts and theories of exercise physiology, with an emphasis on skeletal muscle and exercise metabolism
- Critically interpret and discuss research related to exercise physiology and its application to exercise performance
- Articulate viewpoints related to exercise physiology, and support these viewpoints based on current evidence
- Apply theoretical concepts in exercise physiology to practical situations
- Demonstrate the ability to critically review current research and translate findings to topics discussed in class.

5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 503
Number	
Course Title	Advanced Research Methods in Exercise Science
Description	Concepts of research and evaluation in exercise science. Techniques of
	measurement and methods of analyzing and interpreting data.
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	
General	X Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

An understanding of research and its application is essential to being an evidence-based fitness professional. Moreover, the master's thesis and final project, one of which is required for successful completion of the program, involves extensive research capabilities.

4. Learning Outcomes (By the end of the course students will be expected to):

- Display an ability to critically evaluate research including: a) identifying good research
 questions, b) locating and using appropriate literature sources, c) recognizing strengths and
 weaknesses of different experimental designs, and d) critiquing research studies
- Demonstrate an ability to thoroughly review the literature on a given topic in exercise science
- Develop the methods for data collection and statistical analysis for a given topic in exercise science
- Display competency in applying the proper statistical approaches to different research designs
- Discuss ethical issues associated with the research process
- Describe the peer review process for manuscript publication.
- Plan and prepare a research proposal

5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 504
Number	
Course Title	Advanced Exercise Testing and Prescription
Description	Principles of fitness and the development of exercise programs to enhance health
	and/or human performance in a variety of settings. Methods of evaluating
	physiological adaptation to exercise, using laboratory and field experiences.
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	V Nict Acciliation
General	X Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Exercise testing and prescription is a foundational course in exercise science and an understanding of its nuances is essential to safe and effective program design.

4. Learning Outcomes (By the end of the course students will be expected to):

- Demonstrate an understanding of the importance of physical activity and exercise to the health and well-being of both a healthy and a diseased population
- Perform a risk stratification assessment and use the assessment to guide further exercise and exercise testing recommendations
- Conduct assessments of cardiorespiratory endurance, muscular strength and endurance, body composition, balance, and flexibility
- Interpret the results from exercise tests and apply them to program design

5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. Type of change: New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 505
Number	
Course Title	Advanced Sports Nutrition
Description	Nutritional and metabolic requirements of physical activity. The health and well-
	being benefits of an optimal diet-exercise regimen for physical activity, exercise,
	and sport participation will be emphasized.
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	V Not Applicable
General Education	X Not Applicable Required
Component	Required English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

An understanding of nutrition is essential to exercise performance and adaptations.

4. Learning Outcomes (By the end of the course students will be expected to):

- Describe the nutritional requirements and their rationale for different sports and forms of exercise
- Describe the biochemistry of nutrients during exercise and sports performance
- Evaluate and discuss the current literature in sports nutrition
- Demonstrate a working knowledge of nutritional software
- Display an ability to critique fad diets as they relate to body composition and exercise performance
- Describe the benefits and risks of ergogenic aids
- 5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 506
Number	
Course Title	Applied Training Methodologies
Description	Applications of strength and conditioning theories and training principles including fitness testing, protocol design and goal assessment to clients in diverse exercise and fitness settings.
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	V Nict Acciliation
General	X Not Applicable
Education	Required English Composition
Component	Mathematics
	Science
	Ocience
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Training methods form the core of how exercise is applied in practical settings. An understanding of the nuances is essential to optimizing performance and adaptations.

4. Learning Outcomes (By the end of the course students will be expected to):

- Apply scientific knowledge to train athletes and clients for the primary goals of improving athletic performance and fitness.
- Critically interpret and discuss research related to training methods for optimal exercise-related performance and injury prevention
- Demonstrate an ability to conduct sport-specific testing sessions.
- Display an understanding of periodization models and their application to exercise programming for sports performance
- Demonstrate an ability to design and implement safe and effective strength and conditioning and personal training programs to a variety of populations.

5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 615
Number	
Course Title	Advanced Kinesiology and Biomechanics
Description	Study and application of anatomic and mechanical principles of human movement.
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	
General	X Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

An understanding of human kinematics and kinetics is important for optimizing exercise performance and reducing injury risk.

4. <u>Learning Outcomes (By the end of the course students will be expected to)</u>:

- Display an understanding of the planes of motion and their relevance to exercise program design
- Identify the relationship between anatomical structure, physiological function, and mechanical principles as they relate to the performance of basic and complex movement patterns.
- Demonstrate an ability to identify the primary muscles and stabilizers involved in performance of various exercises
- Observe and analyze kinematics and kinetics to critically evaluate performance in terms of efficient human movement
- Critically interpret and discuss research related to biomechanics and its application to exercise performance

5. Date of Departmental Approval: 12/6/18

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change** New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 616
Number	
Course Title	Advanced Motor Learning and Performance
Description	Effects of psychological, social maturational, and neurophysiological factors on the learning and performance of movement patterns
Pre/ Co Requisites	Departmental Permission
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute (e.g. Writing Intensive, WAC, etc)	N/A
General Education Component	X Not Applicable Required English Composition Mathematics Science Flexible US Experience in its Diversity Creative Expression Individual and Society Scientific World

The ability to teach a skill is central to a fitness professional's job and understanding the processes related to motor learning facilitate optimal instruction.

4. Learning Outcomes (By the end of the course students will be expected to):

- Critique research of motor learning using theoretical and applied knowledge
- Demonstrate an understanding of how each level of the central nervous system contributes to motor control and how the levels work cooperatively to carry out coordinated human movement
- Interpret and apply research findings on motor learning to a variety of disciplines within exercise science
- Demonstrate the knowledge and an understanding of essential theories and scientific applications of motor control and neural mechanisms
- Discuss how specificity of learning affects skill acquisition
- Display an ability to employ different motor learning strategies to optimize skill acquisition based on individual preferences and abilities across a wide variety of populations

5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 626
Number	
Course Title	Fitness Management and Marketing
Description	Management and marketing principles as they relate to budget, facility design, purchasing, scheduling, programming, and personnel issues in the field of exercise science and wellness.
Pre/ Co	
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc) General	X Not Applicable
Education	X Not Applicable Required
Component	Required English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression

Individual and Society Scientific World

Many fitness professionals seek to open their own fitness-related business and understanding how to manage and market the business is essential for its success.

4. <u>Learning Outcomes (By the end of the course students will be expected to):</u>

- Demonstrate a knowledge of theories in fitness management.
- Compare and contrast management concepts in various fitness settings (e.g., corporate, commercial, hospital-based, community)
- Demonstrate an understanding of the processes involved in applied strategic planning
- Demonstrate an understanding of fitness personnel management
- Describe steps and key considerations involved in fitness facility design
- Describe the process required in the selection, purchase, and maintenance of equipment for fitness facilities
- Demonstrate an understanding of basic marketing principles and accounting terminology
- Describe the essentials of risk management planning
- 5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. Type of change: New Course

Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 665
Number	
Course Title	Psychology of Sport
Description	Theories, concepts, and intervention techniques of sport psychology. Topics
	covered include motivation theory applied to sport, team dynamics, psychological
	skills training, the psychology of sport injury, and burnout in sport.
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	
General	X Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

The psychological aspects of sport can have a major influence on performance; as such, practitioners who work with athletes must be aware of the underlying psychological factors and interventions that can be employed in this regard.

4. Learning Outcomes (By the end of the course students will be expected to):

- Identify and explain major theoretical frameworks used in sport psychology research.
- Describe causal mechanisms of the major psychological theories that have been employed to study human behavior in the context of sport.
- Demonstrate an ability to apply theoretical knowledge to encounter challenges commonly associated with sport and physical activity.
- Critically evaluate social and psychological research and discuss its application to practical settings.
- Discuss appropriate intervention strategies for sport performance enhancement.

5. Date of Departmental Approval: 12/6/17

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. Type of change: New Course

2.

Department(s)	Health Sciences
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 790
Number	
Course Title	Thesis Workshop 1
Description	Development of competency in effective scientific writing and critical analysis of research.
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[]Yes [X]No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	
General	X Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

The ability to write effectively in a scientific manner is essential to completion of the thesis option in the Master of Science/Human Performance and Fitness program.

4. Learning Outcomes (By the end of the course students will be expected to):

- Articulate research objectives in a clear, concise, scholarly manner
- Formulate and write a research proposal
- Effectively record data and experiments so that others can understand them in a manner that forms the basis of a thesis
- Provide and respond to critical feedback on writing assignments
- Discuss new ways to make scientific information understandable to scientists and their peers.

5. Date of Departmental Approval: 3/8/18

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

2.

2.	
Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 791
Number	
Course Title	Thesis Workshop 2
Description	Design and execution of a publishable research study on an exercise-related topic
	that demonstrates content expertise
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[] Yes [X] No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	
General	X Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

Completion of a research study is required for the thesis option in the Master of Science/Human Performance and Fitness program.

4. <u>Learning Outcomes (By the end of the course students will be expected to):</u>

- Navigate the online IRB process and produce a proposal consistent with IRB guidelines.
- Analyze data using appropriate measures and draw relevant conclusions from the findings.
- Use a bibliographic reference manager in a manner consistent with publication in recognized peer-reviewed journals.
- Narrate the research process clearly in the form of a formal multi-chapter master's thesis manuscript, structured according to the guidelines set forth by the Human Performance and Fitness program.
- Describe and discuss research clearly and succinctly, in written and oral forms, to faculty and mentors.

5. Date of Departmental Approval: 3/8/18

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

2.

2.	
Department(s)	Health Sciences
Career	[] Undergraduate [x] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Human Performance and Fitness
Course Prefix &	EXS 795
Number	
Course Title	Capstone Project Workshop
Description	Design and execution of a publishable narrative or systematic review on an
	exercise-related topic that demonstrates a thorough understanding of the literature
Pre/ Co	Departmental Permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[] Yes [X] No
Course Attribute	N/A
(e.g. Writing	
Intensive, WAC,	
etc)	
General	X Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

Completion of a capstone project is required for the capstone option in the Master of Science/Human Performance and Fitness program..

4. Learning Outcomes (By the end of the course students will be expected to):

- Articulate research objectives in a clear, concise, scholarly manner
- Formulate and write a research proposal
- Provide and respond to critical feedback on writing assignments
- Discuss new ways to make scientific information understandable to scientists and their peers.
- Analyze data using appropriate measures and draw relevant conclusions from the findings.
- Use a bibliographic reference manager in a manner consistent with publication in recognized peer-reviewed journals.
- Carry out a thorough literature review on an approved topic of choice
- Produce a publishable paper on the topic either as a narrative or systematic review or metaanalysis.

5. Date of Departmental Approval: 3/8/18

APPENDIX B

External Reviewer CV

MICHAEL G. MILLER, PhD, EdD, AT, ATC, CSCS,*D, TSAC-F*D, NSCA-CPT*D, FNATA, FNSCA

CURRENT ADDRESS

Home: Work:

2915 Valley Glenn Circle Kalamazoo, MI 49004

(269) 599-2715

Western Michigan University

Department of HPHE

1903 West Michigan Avenue Kalamazoo, MI 49008-5426

(269) 387-2728

michael.g.miller@wmich.edu

EDUCATION

2011 **Western Michigan University** Doctor of Philosophy:

Kalamazoo, MI

College of Education and Human Development

2010 Western Michigan University Mas

Kalamazoo, MI

College of Education and Human Development

Master of Arts:

Evaluation, Measurement, and Research

Evaluation, Measurement, and Research

1996 **West Virginia University** Doctor of Education:

Morgantown, West Virginia Physical Education Teacher Education School of Physical Education Specialization in Exercise Physiology

1995 **West Virginia University** Master of Science:

Morgantown, West Virginia Exercise Physiology

School of Medicine

1991 **West Virginia University** Master of Science:

Morgantown, West Virginia Physical Education

School of Physical Education Emphasis in Athletic Training

1990 **California University of Pa.** Bachelor of Science:

California, Pennsylvania Athletic Training

School of Education

UNIVERSITY TEACHING EXPERIENCE

2002-current Western Michigan University, Department of HPHE

Professor/Graduate Athletic Training Program Director

- Sports Trauma Rehab
- Sports Trauma Evaluation
- Aquatic Therapy
- Sports Trauma Modalities
- Gross Anatomy
- Orientation and Emergency Management
- Athletic Training for Coaches
- Foundations of Sports Injuries
- Pharmacology for Sports (on-line)
- Thesis and Independent Research
- Readings
- Strength Training and Conditioning
- Muscular Strength and Endurance
- Analytical Techniques

2015-current Rocky Mountain University of Health Professions

Concentration Tract Director - Doctor of Science in Human Sports Performance

- Direct all aspects of the DSc program
- Approve all dissertation topics
- Serve on DSc dissertation committees
- Recruit adjunct faculty

1999 – 2001 Ohio University, School of Recreation and Sport Sciences

Assistant Professor/Athletic Training Undergraduate Program Director

- Seminar: Sports Medicine
- Prevention/Management of Athletic Injuries
- Therapeutic Exercise
- Therapeutic Modalities
- Recognition/Evaluation of Athletic Injuries
- Recognition/Evaluation of Athletic Injuries 2
- Athletic Training Administration
- Exercise Prescription
- Emergency Management
- Research Methods

1998 - 1999 **West Virginia Wesleyan College**, Department of Health and Physical Education Assistant Professor/Chairperson

- Elementary Rhythm and Movement
- PE Majors 2
- PE Majors 3
- Exercise and Weight Control
- First Aid and Safety
- Community Health
- PE Majors I
- Strength and Conditioning
- Tumbling and Gymnastics

1996 - 1998 **University of North Florida**, College of Health, Department of Health Science Assistant Professor of Sports Medicine-Athletic Training

- Gross Anatomy (Physical Therapy and Athletic Training Programs)
- Principles of Strength and Conditioning
- Biomechanics
- Orthopedic and Injury Assessment of the Upper Extremity
- Athletic Training Administration
- Orthopedic Taping and Bracing
- Observation and Practicum in Athletic Training
- Lifestyle Modification
- Exercise Physiology -Section of Cardiopulmonary Physical Therapy

1993 - 1996 West Virginia University, School of Physical Education

Instructor (one year)/Doctoral Graduate Assistant (two years)

- Sports Injury Control and Management
- Therapeutic Modalities
- Orthopedic Assessment
- Gross Anatomy
- Exercise Physiology
- Kinesiology
- Methodology in Physical Education
- Physical Education Teaching Practicum
- Adaptive Physical Education
- Student Teacher Supervisor
- Basketball and Billiards
- Volleyball and Golf
- Badminton and Racquetball

1992 - 1993 **Southern Connecticut State University**, Department of Physical Education

Assistant Professor/Athletic Trainer (One year position)

- Therapeutic Modalities
- Care and Prevention

- Standard First Aid and Community CPR
- Basketball Skills
- Weight Training and Conditioning

1991 - 1992 Lock Haven University, Department of Health Sciences

Instructor/Athletic Trainer (One year position)

- Anatomy and Physiology with cat dissection
- Human Anatomy
- Care and Prevention of Athletic Injuries
- Safety Concepts/First Aid

ATHLETIC TRAINING EXPERIENCE

2010	Athletic Trainer – USTA 18 & 16 National Tennis Tournament – Kalamazoo College
2007-2008	Athletic Trainer – USTA 18 & 16 National Tennis Tournament – Kalamazoo College
2003	Athletic Trainer – USTA 18 & 16 National Tennis Tournament – Kalamazoo College
2002	Assistant Athletic Trainer – Kalamazoo Area High School Football (Friday night home games at various high schools)
2002	Athletic Trainer – Vicksburg JV Football
2002	Athletic Trainer USTA 18 & 16 National Tennis Tournament – Kalamazoo College
2002	Athletic Trainer – Kalamazoo Invitational Soccer Shootout, June 23
1997	Athletic Training coverage: Trinity Christian High School Football University of North Florida, Volleyball Tournaments Gate River Run, Jacksonville, Florida
1996	Kid's Café Assistant Director/Medical Director, Jacksonville, Florida
1994	Head football athletic trainer, South Junior High School, Morgantown, WV
1993 - 1994	Assistant Athletic Trainer, West Virginia University Responsible for men's soccer and non-revenue sports Supervised undergraduate and graduate athletic trainers
1992 - 1993	Assistant Athletic Trainer, Southern Connecticut State University Responsible for football, volleyball, men's gymnastics, and men's soccer teams Supervised and advised student athletic trainers

1991 - 1992 Assistant Athletic Trainer, Lock Haven University
Responsible for football, field hockey, lacrosse, softball, basketball, and track teams
Supervised and advised student athletic trainers

PROFESSIONAL MEMBERSHIPS

2008 - 2009	American Educational Research Association
2011-2016	American Evaluation Association
2007- 2011	National Scholars Honor Society

2006 – currentAquatic Exercise Association

2005- 2009 International Council for Health, Physical Education, Recreation, Sport & Dance (ICHPER-SD)

2002 - current Michigan Athletic Trainers' Society

2002 - 2011 American College of Sports Medicine

1992 - current National Strength and Conditioning Association

1987 - current National Athletic Trainers' Association

PROFESSIONAL CERTIFICATIONS

Michigan Licensed Athletic Trainer

NSCA Certified Strength and Conditioning Specialist with Distinction (CSCS*D)

Tactical Strength and Conditioning- Facilitator with Distinction (TSAC-F*D)

National Strength and Conditioning Association – Certified Personal Trainer with Distinction (NSCA-CPT*D)

BOC Certified Athletic Trainer

Commonwealth of Pennsylvania - Class A Certification

Aquatic Fitness Professional Certification (AFPC)

Facial Movement Taping Level I and II (FMT I/II)

Functional Movement System (FMS) – Level 1

Y-Balance certified

American Red Cross CPR/AED for the Professional Rescuer & First Aid/CPR Instructor

NPI - 1497802086

UNIVERSITY SERVICE

Western Michigan University

2017	American Association of University Professors (AAUP) Negotiation team member
2016-17	Athletic Training Faculty Search Committee Chair
2015 2014-2016	WMU Research and Creative Activities Poster and Performance Day - Judge College of Education and Human Development Dean's Advisory Council
2014-2010	Exercise Science Faculty Search Committee Member
	University HSIRB Committee Member
	College of Education and Human Development Promotion Committee
2012-2015	HPHE Policy Committee Member
2011-2015	WMU Graduate Studies Council Committee member
2011-2015	WMU Physician Assistant Program Musculoskeletal Module Facilitator
2010	WMU Research and Creative Activities Poster Judge
2010	Undergraduate Athletic Training Search Committee Chair
2008 – currer	ntWMU FRACAA grant review committee
2007 – 2014	HPHE Personnel Committee Member
2007 – 2010	Faculty Senate Campus Planning and Finance Committee – Vice Chair
2007 – 2012	Chair, Academic Subcommittee – Inter-collegiate Athletics
2006 - 2012	Faculty Senate Library Committee Member
2006	First year Experience (FYE) Instructor
2005- 2012	Western Michigan University Athletic Board Member
2005 - 2007	American Association of University Professors (AAUP) Contract Administrator
2005	Undergraduate Athletic Training Search Committee Member
2004 - 2007	Graduate Research and Creative Scholar Award Selection Committee
2003 – 2007	HPHE Department AAUP Representative
2003	Mentoring Healthy Habits - Mentor

2003	Exercise Science Search Committee Member	
2002 – 2007	HPHE Policy Committee Member	
2002 - 2006	HPHE Graduate Council	
2002 – currentHPHE Exercise Science/Athletic Training Core Group Member		

Ohio University

2001	Pew Higher Education Roundtable – Selected Member
2001	Ohio University's Colloquium on Teaching – Selected Member
2001	Ohio Teaching Enhancement Program – Selected Member
2001	Exercise Physiology Search Committee Member
2000 - 2001	College of Health and Human Services Policies Committee Member
1999 - 2001	Enhancement Committee Member - Chair

West Virginia Wesleyan College

1999	Nutrition Planning Committee Member
1998 – 1999	Chairperson, Department of Health and Physical Education

University of North Florida

1997 - 1998	University Tuition Exchange Committee Member
	University Osprey Card Committee Member
	University Technology Planning Committee Member
	Physical Therapy Anatomy Professor Search Committee Member
1996 - 1998	Chair, Technology Committee, College of Health
1997	Distinguished Professor Search Committee Member
1996 - 1997	Chair, Faculty and Staff Affairs, College of Health

Lock Haven University

1992 Athletic Training Search Committee Member

GRANTS (funded)

2009	Binkley H, Miler MG , Faignebaum, A, Tolbert, T. Care to Play . Center for Physical Activity and Health in Youth. Middle Tennessee State University. \$10,300
2009	Miller MG , Michael TJ, Bensley R. <i>CPR for Everyone</i> American Heart Association/ American Red Cross. \$104,000
2008	Miller MG, Michael TJ, Bensley R. Development, Administration, and Evaluation of CPR Refreshers . American Heart Association/ American Red Cross. RFP No. 229842. \$506,300

2008	Cheatham, C., Standley, R., Miller, MG ., Michael, T. & Liu, Y. Effects of High Dose Fish Oil Supplementation on Delayed Onset Muscle Soreness (DOMS) and Inflammatory Markers. <i>GlaxoSmithKline</i> . \$4,775
2006	Miller MG & Berry DC. Great Lakes Athletic Trainers' Association Research Grant. An Investigation of Clinical Instructor/Supervisors Behaviors with Athletic Training Students. \$1,200
2006	Miller MG . Western Michigan University Faculty Grant (FRACASF). Absorption Characteristics of Ultrasonically Applied Ketoprofen. \$7,461
2006	Miller MG . Product Grant from IOMED. Provided Iontophoresor and 96 electrodes. \$1,800
2005	Miller MG. Product Grant from OrthoDX. Provided Electrical Stimulation Unit. \$1,500
2004	Miller MG . Product Grant from Fitter International. Provided 10 classic balance boards. \$300.00
2003	Miller MG. Product grant from Rothhammer International, Inc. Provided 5 Sprint Aqua Steps. \$500
2003	Miller MG. Product Grant from BREG. Provided 6 Turf and Court ankle braces. \$150
2003	Miller MG . Product grant from Road Runner Sports. Provided 19 pairs of Asics Gel Creed running shoes. \$2,000
2003	Miller MG. President's Faculty Laptop Initiative. Dell Laptop Computer. \$1800
2000	Miller MG & Berry DC. Assessment of Athletic Training Student Clinical Behaviors. Ohio University College of Health and Human Services Scholarly Activity Award. \$4,838.88
2000	Berry DC & Miller MG . Mouthguard Usage for Appalachian High School Athletes. John Houk Research Grant. \$500
1998	Miller MG . Product grant from PEAK Nutrition. Provided Creatine Monohydrate for a research study. \$1,200
1996	Kleiner DM, Holcomb WR, Miller MG . (1996). The physiological effects of ankle bracing. McDavid, Chicago, IL; Cramer, Gardner, KS; Mueller, Prairie du Sac, WI; and Body Glove, Charlotte, NC. \$3,000
1995	Miller MG. Dissertation Research Grant. West Virginia University, \$500.00

GRANTS (not funded)

2015	Miller MG , Michael TJ, Hanson NJ, Lee S. Examination of Fatigue Resistant Racquet. Wilson Sporting Goods. \$63,504.
2011	Mickus M & Miller MG . Group Exercise via Videoconferencing for Dementia Caregivers and Care Recipients. US Department of Health and Human Services, National Institute of Health R21. \$407,000
2010	Mickus M & Miller MG . Reducing Loneliness in Homebound Elders using Videoconferenced Exercise Groups. US Department of Health and Human Services, National Institute of Health R21. \$409,750
2009	Miller MG , Cheatham CC, Binkley H, Tolbert, T. Surveillance of Adolescent Football Experience (SAFE). NFL Charities Medical Grant. \$89,000
2008	Miller MG & Chase C. The Effects of Aquatic Training on the Fear of Falling in Community Living Older Persons. National Swimming Pool Foundation, \$57,600
2008	Miller MG. Integration of physiological concepts and technology to enhance undergraduate learning and research in athletic training. National Science Foundation, Course Curriculum Laboratory Instruction, phase 1, \$104,000
	2004 Wimer J, Miller MG , Berry DC. A Surveillance Study of Student Engagement Patterns in Classroom and Clinical Education Settings Using Cellular Telephones with Wireless Internet Access. NATA Research and Education Foundation. \$88,117
2002	Miller MG & Berry DC. Observational Analysis of Athletic Training Students' Clinical Field Experiences. NATA Research and Education Foundation.
2001	Miller MG . Comparisons of Plasma Ketoprofen Absorption Rates Between Phonophoresis and Direct Topical Application. Ohio University Research Committee Grant.
1999	Miller MG & Holcomb WR. Conceptual Knowledge Structures of Student Athletic Trainers. NATA Educational Foundation.
1998	Holcomb WR & Miller MG . Vastus Medialis Oblique Strength Augmentation with Neuromuscular Electrical Stimulation. NATA Educational Foundation.

FUNDED CONTRACTS

2016 graduate	Clinical contracts from 15 High Schools, 1 Community College, 1 Private College for the
	athletic training program. \$308,000.
2015 graduate	Clinical contracts from 16 High Schools, 1 Community College, 1 Private College for the
graduate	athletic training program. \$326,600.
2014	Clinical contracts from 16 High Schools, 1 Community College, 1 Private College for the graduate athletic training program. \$325,000.
2013	Clinical contracts from 15 High Schools, 1 Community College, 1 Private College for the graduate athletic training program. \$306,000.
2012	Clinical contracts from 16 High Schools, 1 Community College, 1 Private College for the graduate athletic training program. \$306,000.
2011	Clinical contracts from 17 High Schools, 1 Community College, 1 Private College for the graduate athletic training program. \$333,360.
2010	Clinical contracts from 17 High Schools, 1 Community College, 1 Private College for the graduate athletic training program. \$306,660.
2009	Clinical contracts from 17 High Schools, 1 Community College, 1 Private College for the graduate athletic training program. \$317,360.
2008	Clinical contracts from 16 High Schools and 1 Community College for the graduate athletic training program. \$280,200.
2007	Clinical contracts from 14 High Schools and 1 Community College for the graduate athletic training program. \$233,200.
2006	Clinical contracts from 14 High Schools and 1 Community College for the graduate athletic training program. \$212,200.
2005	Clinical contracts from 16 High Schools, 1 Community College, and 2 at a Private College for the graduate athletic training program. \$239,400.
2004	Clinical contracts from 17 High Schools, 1Community College and 2 at a Private College for the graduate athletic training program. \$231,400.

2003 Clinical contracts from 14 High Schools, 1 Community College and 2 at a

Private College for the graduate athletic training program. \$209,100.

2002 Clinical contracts from 14 High Schools, 1 Community College and 2 at a

Private College for the graduate athletic training program. \$209,100.

PATENT

2008 Mouthguard Wear Strip - provisional patent #61/127,614

PROFESSIONAL SERVICE

2017 NSCA Moderator- Annual Conference

2017 NATA Moderator- Annual Conference

2016-2017 NSCA State Clinic Host Organizer

2016 ATEC Moderator

2015/17 NATA Research and Education Foundation Grant reviewer

2014 NSCA Research Poster Judge. NSCA National Convention, Las Vegas, NV

2011-2014/16 NATA Annual Meeting Convention Proposal Reviewer

2010 NSCA Research Poster Judge. NSCA National Convention, Orlando, FL

2008-current NSCA Abstract Reviewer

2007 Student Research Poster Judge. NSCA National Convention, Atlanta GA

2007/2014 NSCA Grant Reviewer. NSCA

2007 NATA Moderator. Free Communications. NATA National Convention, Anaheim, CA

2005 –2014 NSCA CSCS exam host

2005 BOC Examiner, Alma, Michigan – January 30

2004 BOC Examiner, Alma, Michigan – February 8

2003	NATA Research and Education Foundation Judge; 2003 NATA Clinical Symposia, St. Louis, MO
2002	NATA Research and Education Foundation Undergraduate Poster Judge; 2002 NATA Clinical Symposia, Dallas, TX
2002	BOC Examiner; Alma, Michigan
2002	BOC Examiner; East Lansing, Michigan
2001-2002	Competencies & Proficiencies Committee Member – Subcommittee of the JRC-AT
2001	BOC Examiner; Granville, Ohio
1999	BOC Examiner; Pittsburgh, Pennsylvania
1997	BOC Examiner; Orlando, Florida
1995	Abstract Reviewer, NATA Research and Education Foundation
1996	BOC Examiner; Pittsburgh, Pennsylvania
1996	Guest Examiner, California University of PA Athletic Training Program
1995	BOC Examiner; Pittsburgh, Pennsylvania
1995	Exercise Physiologist, Mountainview Rehabilitation Hospital Aquatic Therapy Program
1995	National Youth Sports Program Medical Director
1990	National Youth Sports Program Medical Director

PROFESSIONAL COMMITTEES

2015-2017 Transition to Practice Workgroup member
 2015- current Athletic Training Education Conference (ATEC) committee member
 2014-current NATA Education Advancement Committee - chair
 2017-current NSCA Board Member- Vice President

2014-current	NSCA Board Member
2014-current	NATA Executive Committee on Education committee member
2013-current	NATA Liaison for the NSCA
2010-2011	NATA 2011 Convention Program Committee
2009-2012	Mid-American Conference (MAC) Cartwright Award Committee
2007	NSCA Strategic Planning Summit Member
2006 – currer	atCAATE Ethics Committee Member
2006 – 2011	NATA Liaison for the NSCA
2005 – 2007	Strength & Conditioning Subcommittee Chair – Michigan Athletic Trainers' Society
2004 – 2009	National Strength and Conditioning Association (NSCA) Education Committee Chair
2002 - 2006	BOC Task Force on Continuing Education
2002	Kalamazoo County Government, Human Services Department – Physical Activity Health Issue Team Member
2002 – 2008	Professional Education Committee Member – Michigan Athletic Trainers' Society
2002 - 2011	CAATE Site Reviewer
2001- 2013	BOC Home Study Reviewer
2001 - 2009	National Strength and Conditioning Association - Education Committee Member
1998 - 1999	West Virginia State Director for the National Strength and Conditioning Association

EDITORIAL BOARD/JOURNAL REVIEWER

2015-current Co-editor- Sports Medicine special edition- Journal of Strength and Conditioning
 2015 Athletic Training Education Journal – Editorial Board Member

2014-current Manuscript Reviewer – Journal of Strength and Conditioning Research

2014 – currentManuscript Reviewer – Athletic Training & Sports Health Care

2005 – 2007 Assistant Editor - ICHPER-SD Research Journal

2002 - 2010 Editorial Review Board Member – The Physical Educator

2002 - currentManuscript Reviewer - Journal of Athletic Training

1997 - 2002 Reviewer - Strength and Conditioning Journal

HONORS/AWARDS

2016 GLATA Educator of the Year

2015 NATA Most Distinguished Athletic Trainer

2014-current Excellence in Discovery, Western Michigan University, OVPR

2012 NATA Fellow 2012-current NSCA Ironman

2008 Bronze Award NSCA Certification Commission

2000 California University of Pennsylvania Athletic Training Program Distinguished Alumnus

PROFESSIONAL PRESENTATIONS

NATIONAL

- 65) Fox R, Lee S, Weidman C, Michael T, **Miller MG**, Hanson N. (2017). Effect of listening to music during warm-up on Wingate anaerobic test performance. Free Communication/Poster, NSCA National Conference, Las Vegas, NV.
- 64) Hanson NJ, **Miller MG**, Lothian DD, Miller CL, Michael TJ, Lee S. (2017). Does a performance enhancing mouthguard have the ability to decrease blood lactate and increase power? Free Communication/Poster, NSCA National Conference, Las Vegas, NV.
- 63) **Miller MG.** (2017). Aquatic Training for the Lower Extremity- Aquatic Training for Developing the Core for Recovery and Sport Enhancement. Feature Presentation. NATA Annual Meeting and Clinical Symposia. Houston, TX.

- 62) **Miller MG,** Harvatt C, Hirsch K, Holcomb WR. (2017). Network analysis of clinical placement of athletic training students. Free Communication Rapid Fire Poster, NATA Annual Meeting and Clinical Symposia. Houston, TX.
- 61) **Miller MG**, Dahl WO, Ledwon RW, Sullivan TL, Hanson NJ, Michael TJ, Hatzel B. (2016). Electromyography and force comparison of the quadriceps after application of specialty tapes for muscle activation over time. Free Communication/Poster, NSCA National Conference, New Orleans, LA.
- 60) **Miller MG**, Boike TS, Mass CJ, Holcomb WR, Hanson NJ, Michael TJ. (2016). The effect of low level laser therapy on delayed onset muscle soreness of the biceps brachii. Free Communication/Poster, NSCA National Conference, New Orleans, LA.
- 59) Holcomb WR, Bremner CB, Brown CD, **Miller MG**. (2015). Assessment of Patient Comfort During NMES-Induced Quadriceps Contractions at Two Knee Joint Angles. Free Communication Rapid Fire Poster, NATA Annual Meeting and Clinical Symposia. St. Louis, MO.
- 58) Hanson NJ, Buckworth J, **Miller MG**, Michael TJ. (2015). Teleoanticipation and effects of sex differences on pacing strategy. Free Communication/Poster, NSCA National Conference, Orlando, FL.
- 57) **Miller MG** (2015). Aquatic Strength and Conditioning Workout. Hands-on Track. NSCA National Conference, Orlando, FL.
- Holcomb WR, Bremner CB, Brown CD, **Miller MG**. (2015). Assessment of the learning effect with repeated isometric strength testing at two knee flexion angles. Free Communication/Poster, NSCA National Conference, Orlando, FL.
- 55) **Miller MG**, Depudyt T, Holcomb WR, Humason M, Prater D. (2015). The effects of specialty tape on balance of the lower leg and ankle. Free Communication/Poster, NSCA National Conference, Orlando, FL.
- 54) Kolean J, Jones S, **Miller MG**, Holcomb WR, Bremner CB. (2015). Effects of Kinesio Tape on blood flow in the biceps brachii. Free Communication/Poster, NSCA National Conference, Orlando, FL.
- 53) **Miller MG**, Holcomb WR, Reuter B. (2015). Hot topics in sports medicine: Roundtable discussion. Sports Medicine SIG, NSCA National Conference, Orlando, FL.
- 52) **Miller MG**, Burningham D, Bratton W, Hatzel B, Holcomb WR, Bremner C. (2014). Effect of Kinesio® Taping for Muscle Inhibition on Bioelectrical Activity of the Middle Deltoid. Poster Presentation, NSCA National Conference, Las Vegas, NV.

- Troiano J, Larsen C, Ramirez R, **Miller MG**, Holcomb WR. (2013). Effects of PNF Stretching Following Crushed Ice Versus Wetted Ice on Hamstring Flexibility. Poster Presentation, NSCA National Conference, Las Vegas, NV.
- 50) Krasinski D, Thrasher A, **Miller MG**, Holcomb WR. (2013). Effects of Applied Pressure on Intramuscular Temperature During Ultrasound Treatments, Poster presentation: Therapeutic Intervention, NATA Annual Meeting and Clinical Symposium. Las Vegas, NV.
- 49) Cavett H, **Miller MG**, Cheatham CC, Holcomb WR. (2011). Effects of Premodulated Electrical Stimulation on Muscular Blood Flow in the Gastrocnemius. Poster presentation, NATA Annual Meeting and Clinical Symposium. New Orleans, LA.
- 48) Knight BD, Oney JR, **Miller MG**, Gyorkos AM. (2011). Comparison of Self Adherent and Cloth Tape on Dynamic Ankle Inversion Before and After Exercise. Poster Presentation, NATA Annual Meeting and Clinical Symposium. New Orleans, LA.
- 47) **Miller MG**. (2010). Aquatic Exercises for Rehabilitation and Conditioning of Athletes. NATA Workshop. NATA Annual Meeting and Clinical Symposium. Philadelphia, PA.
- 46) **Miller MG**, Klawon RP, Lininger MR, Cheatham CC, Michael TJ. (2010). A Preliminary Investigation into the Effect of Kinesio and Athletic Tape on Skin Blood Flow Changes. Poster Presentation, NSCA National Conference, Orland, FL.
- 45) Standley RA, Cheatham CC, **Miller MG**, Michael TJ, Baker RJ, and Liu Y. (2010). Effects of High Dose Fish Oil Supplementation on Delayed Onset Muscle Soreness and Inflammatory Markers. F-31-Nutritional Interventions/Free Communications. ACSM Annual Conference, Baltimore, MD.
- 44) Lambert DM, Ellson AE, Michael TJ, Cheatham CC, **Miller MG**, Lininger M. (2010). The Effect of Environmental Conditions on Producing a Given OMNI-RPE During Steady State Exercise. E34-Perceived Exertion/Free Communications. ACSM Annual Conference, Baltimore, MD.
- 43) **Miller MG**, Ploeg AH, Dibbet TJ, Holcomb WR, Berry DC, O'Donoghue J. (2009). The Effects of High-Volume Aquatic Plyometric Training on Vertical Jump, Muscle Power, and Torque. Poster Presentation, NSCA National Conference, Las Vegas, Nevada.
- 42) Neitzke H, **Miller MG**, Cheatham CC, O'Donoghue J. (2009). Preplanned and reactive Agility Training Influence on Agility Test Performance in male Adolescents. Poster Presentation, NSCA National Conference, Las Vegas, Nevada.
- 41) **Miller MG**. (2009). OTC in the Athletic Training Facility: Perspectives and Management. Feature Presentations: Prescription and Over-the-Counter Medications in the Athletic Training Facility. NATA Annual Meeting and Clinical Symposium. San Antonio, TX.

- 40) Milos G, Cheatham CC, **Miller MG**, Michael TJ, Query J. (2009). Effects of Resistance Exercise of Different Intensity but Equal Work on Excess Post-Exercise Oxygen Consumption. B-34 Free Communication/Poster Resistance Training. ACSM Annual Conference. Seattle, WA
- 39) Eberhardt MJ, Bova SM, , **Miller MG**, Cheatham CC, Baker RJ, Webb D, Michael TJ. (2009). The Effects of Ultrasound Heating on Intramuscular Blood Flow Characteristics in the Gastrocnemius. Free Communications, Oral Presentations: Therapeutic Modalities. NATA Annual Meeting and Clinical Symposium. San Antonio, TX.
- 38) **Miller MG**, Berry DC. (2009). Approved clinical instructors are appropriately engaged in clinical behaviors with athletic training students. Poster presentation, National Athletic Trainers' Association Educators Conference, Washington DC.
- 37) Crelinsten AD, **Miller MG**. (2008). Effectiveness in Improving Performance With The Bigger Faster Stronger In-Season Training Program. Poster Presentation, NSCA National Conference, Las Vegas, Nevada.
- 36) Chaloupka H, Robinson T, Michael T, **Miller MG**. (2008). The Effects of Massage on Muscle Force production in the Agonist and Antagonist Muscles of the Thigh. Poster Presentation, NSCA National Conference, Las Vegas, Nevada.
- Lininger ML, **Miller MG**, Michael TJ, Baker RJ, Holcomb WR, Berry DC. (2008). An Exploratory Study of Ketoprofen Drug Concentrations in Swine Tissue using Ultrasound with Pluronic Lecithin Isopropyl Palmatate Coupling Medium. Free Communications, Poster Presentations: Modalities. NATA National Convention, St. Louis, MO.
- 34) Berry DC, **Miller MG**, Berry LM. (2008). Intra and Intertester Reliability of Computer Aided Lateral Digital Photography Goniometry at the Knee Joint. Free Communications, Oral Presentations: Measurement and Evaluation. NATA National Convention, St. Louis, MO.
- 33) Berry DC & **Miller MG**. (2007). Creating multimedia modules as a method to enhance athletic training students' learning outcomes and computer literacy skills. Poster Presentation, National Athletic Trainers' Association Educators Conference, Dallas, TX.
- 32) **Miller MG** & Berry DC. (2007). Effects of crossword puzzles on athletic training students' performance in a therapeutic modalities class. Poster Presentation, National Athletic Trainers' Association Educators Conference, Dallas, TX.
- 31) **Miller MG**. (2007). Designing a Lower Extremity Aquatic Plyometric Program. NATA Workshop. NATA National Convention, Anaheim, CA.
- 30) **Miller MG**, Longoria JR, Cheatham CC, Michael TJ, Baker RJ. (2007). A Comparison of Tissue Temperature Differences between the Midpoint and Peripheral Effective Radiating Area during 1 and 3

- Mhz Ultrasound Treatments. Free Communications, Oral Presentations: Ultrasound. NATA National Convention, Anaheim, CA.
- 29) Dykstra JH, Hill HM, **Miller MG**, Cheatham CC, Michael TJ, Baker RJ. (2007). Effects of Cubed Ice, Crushed Ice, and Wet Ice on Cutaneous and Intramuscular Temperature Changes of the Gastrocnemius. Free Communications, Thematic Posters: Cryotherapy. NATA National Convention, Anaheim, CA.
- 28) Berry DC, **Miller MG**, Berry LM. (2007). Intra-and Intertester Reliability of Computer Aided lateral Digital Photography Goniometry at the Ankle Joint. Free Communications, Poster Presentations: Ankle Instability. NATA National Convention, Anaheim, CA.
- 27) Groth JG, Ayers SF, **Miller MG**, Arbogast WD. (2007). Self-Reported Health and Fitness Habits of Certified Athletic Trainers. Free Communications, Poster Presentations: Nomenclature and Behavior of Athletic Trainers. NATA National Convention, Anaheim, CA.
- Lininger MR, Cheatham CC, **Miller MG**, Michael TJ. (2007). The Influence of Exercise Protocol on the Determination of Lactate Threshold. Free Communications, Poster Presentations: Highlighting Research in Healthcare. NATA National Convention, Anaheim, CA.
- Doyle AT, Cheatham CC, **Miller MG**, Michael TJ, Baker RJ, Spitsbergen JM. (2007). The Effects of Dexamethosone Iontophoresis on an Acute Muscle Injury of the Biceps Brachii. Free Communications, Poster Presentations: Modalities. NATA National Convention, Anaheim, CA.
- 24) Herniman JH, **Miller MG**, Ricard MD, Cheatham C, Michael T. (2006). The Effects of a 6-week Plyometric Training Program on Agility. Poster Presentation. NSCA Annual Convention, Washington, D.C.
- Miller MG, Stacey RR, Eslinger DE, Cheatham CC, Michael TJ. (2006). The effect of high and low glycemic index foods on repeated high intensity exercise performance. Free Communications, Poster Presentations: Research and Cases in the Athletic Training Domains. NATA National Convention, Atlanta, GA.
- Porter AR, Hennigar DM, **Miller MG**, Ricard MD, Cheatham CC, Berry DC. (2006). Comparisons of chest and waist deep water on aquatic plyometric training programs on average force, power, and vertical jump. Free Communications, Poster Presentations: Research and Cases in the Athletic Training Domains. NATA National Convention, Atlanta, GA.
- 21) Ganschow RL, **Miller MG**, Holcomb WR, Cheatham CC, Michael TJ, Rubley MD. (2006). The effects of subcutaneous tissue thickness on peak torque and intensity output of neuromuscular electrical stimulation. Free Communications, Poster Presentations: Exercise Science and Research Techniques. NATA National Convention, Atlanta, GA.

- 20) Berry DC & **Miller MG**. (2006). Creating Multimedia Modules as a Method to Enhance Athletic Training Students' Learning Outcomes and Computer Literacy Skills. Poster Presentation. NATA Educator's Conference. Dallas, TX
- 19) **Miller MG** & Berry DC. (2006). Effects of Crossword Puzzles on Athletic Training Students' Performance in A Therapeutic Modalities Class. Poster Presentation. NATA Educator's Conference. Dallas, TX
- Holcomb WR, Rubley MD, **Miller MG**, Girouard TJ. (2005). Effect of rest interval on knee extensor torque production when using neuromuscular electrical stimulation. Free Communications, Oral Presentations: Prevention and Treatment Strategies in Lower Extremities. NATA National Convention, Indianapolis, IN.
- 17) Hills-Meyer P, **Miller MG**, Ricard MD, Michael TJ. (2005). The effects of bicycle frame geometry on muscle activation and power during a wingate anaerobic test. Free Communications, Oral Presentations: Prevention and Performance. NATA National Convention, Indianapolis, IN.
- Berry DC, **Miller MG**. (2005). Utilizing digital video technology in athletic training education to enhance student learning outcomes. Poster Presentation. 2005 NATA Educator's Conference, Montgomery, TX.
- 15) Berry DC, **Miller MG**, Berry LM. (2004). Athletic training students' perceptions of their clinical field experience: A qualitative examination. Free Communications, Oral Presentation and Thematic Posters: NATA National Convention, Baltimore, MD.
- 14) Roth A, **Miller MG**, Ricard M, Ritenour D, Chapman B. (2004). Comparison of land and aquatic balance training. Free Communications, Oral Presentation and Thematic Posters: NATA National Convention, Baltimore, MD.
- 13) Kelly J, **Miller MG**, Ricard M, Ritenour D. (2004). Land based and aquatic based plyometric training has no effect on balance. Free Communications, Oral Presentation and Thematic Posters: NATA National Convention, Baltimore, MD.
- 12) Primm MJ & **Miller MG**. (2003). Knowledge of type 1 diabetes mellitus of licensed athletic trainers in Ohio. Free Communications, Poster Presentations: Applications in Athletic Training. NATA National Convention, St. Louis, MO.
- 11) Schlumbohm SL, **Miller MG**, Brylinsky JA, Thompson GA. (2003). Perception of the treatment efficacy of therapeutic magnets on pain control of exercise induced muscle soreness in the non-dominant wrist and forearm in high school athletes. Free Communications, Oral Presentation and Thematic Posters: Therapeutic Modalities. NATA National Convention, St. Louis, MO.

- 10) Toonstra JL, **Miller MG**, Ritenour DM, Schutten MC. (2003). Institutional barriers in obtaining CAAHEP accreditation: A comparison study. Free Communications, Thematic Posters: Athletic Training Education. NATA National Convention, St. Louis, MO.
- 9) Blecha KM, **Miller MG**, Ritenour DM, Baker RJ. (2003). Traumatic pneumothorax in a collegiate football player. Free Communications, Case Reports: Chest and Thorax. NATA National Convention, St. Louis, MO.
- 8) **Miller MG**, Berry DC, Berry LM, Wroble RR. (2002). Surgical Intervention for Iliotibial Band Friction Syndrome. Free Communications, Case Studies: Knee. NATA National Convention, Dallas, TX.
- 7) Berry DC, **Miller MG**, Berry LM. (2002). Utilizing Time and Active Learning in Athletic Training Clinical Education: Reported Through the Eyes of Athletic Training Students. Free Communications, Poster Presentations: Education. NATA National Convention, Dallas, TX.
- 6) **Miller MG**, Berry DC. (2000). Student and Instructor Knowledge Similarities as Determined by the Pathfinder Program. Free Communications, Thematic Poster Session: Teaching Athletic Training. NATA National Convention, Nashville, TN.
- 5) Caswell SV, Deivert RG, **Miller MG**, Berry DC. (2000). Lacrosse Helmet Designs and the Effects of Impact Forces. Free Communications, Poster Session B: Head Injury. NATA National Convention, Nashville, TN.
- 4) **Miller MG**. (1999). A Comparison of the Fitness Knowledge Acquired by Students in Athletic Training and Other Allied Health Professions. Free Communication/Oral Presentations: Education and Administration. NATA National Convention, Kansas City, MO.
- 3) **Miller MG**, Kleiner DM, Holcomb WR. (1997). A Comparison of the Fitness Knowledge Between Students of Athletic Training and Other Allied Health Professions. Free Communications/Poster, NATA National Convention, Salt Lake City, UT.
- 2) Holcomb WR, Kleiner DM, **Miller MG**. (1997). The Effects of Long Term Ankle Bracing on Strength of the Ankle Musculature. Free Communications/Poster, NATA National Convention, Salt Lake City, UT.
- 1) Francis K, Kleiner DM, Holcomb WR, **Miller MG**. (1997). The Effects of Long Term Ankle Bracing on Size and Range of Motion of the Ankle. Free Communications/Poster, NATA National Convention, Salt Lake City, UT.

INTERNATIONAL

Ploeg A, Dibbet T, **Miller MG**, O'Donoghue J, Holcomb W, Berry D. (2009). The Effects of High-Volume Aquatic Plyometric Training on Vertical Jump, Muscle Power, and Torque. Poster Presentation, AEA International Aquatic Fitness Conference. Orland, Florida.

- 2) Crelinsten AD, Miller MG. (2008). Effectiveness In Improving Performance With The Bigger Faster Stronger In-Season Training Program. 42nd Annual Conference of the Canadian Athletic Therapists Association. Montreal, Canada.
- 1) Berry DC, **Miller MG**, Berry LM. (2003). Athletic Training Students' Perceptions of Their Clinical Field Experience: A Qualitative Examination. World Federation of Athletic Training Therapy, Canada.

DISTRICT

- 5) Maceri R, Lee TL, Michael TJ, **Miller MG**, Lee S & Hanson NJ: Changes in cortical neural arousal after a self-paced VO2max (SPV) test. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. November 10-11, 2017.
- 4) Cargo JS, Michael TJ, Hanson NJ, Weideman C, **Miller MG**. (2016). Effect of a Seven-Week Rock Climbing Course on Physical Fitness and Performance. ACSM Annual Meeting, Boston MA.
- 3) Toth, L., Weideman, C., Michael, T., & **Miller, MG.** (2014). A Comparison of Accuracy for the Dual-Axial Omron and Tri-Axial Fitbit Accelerometers. Midwest ACSM Regional Chapter Annual Meeting, Merrillville, IN.
- 2) **Miller MG**, Berry DC. (2008). Approved clinical instructors are appropriately engaged in clinical behaviors with athletic training students. Oral Presentation, Great Lakes Athletic Trainers* Association Annual Meeting, Toledo, OH.
- 1) Berry, DC, **Miller, MG**, Berry, LM. (2003). Tibial Plateau Stress Fracture in a Male Recreation Runner. EATA Conference, Boston, MA.

STATE

- 15) Miller MG, Ballines A. (2017). TSAC Circuit Training. NSCA Michigan State Clinic, Kalamazoo, MI.
- 14) Hanson NJ, Scheadler CM, Lee TL, Neuenfeldt NC, Michael TJ, **Miller MG**. (2016). Test preference and its relationship to performance during maximal aerobic exercise testing. Michigan ACSM.
- 13) Miller MG. (2016). The NSCA and Functions. NSCA Michigan State Clinic, Kalamazoo, MI.
- 12) Miller MG. (2015). NSCA Updates from the BOARD. NSCA Michigan State Clinic, Ypsilanti, MI.

- 11) **Miller MG.** (2011). Aquatic Rehabilitation. Grand Valley State University Athletic Training Program, Allendale, MI.
- 10) **Miller MG.** (2010). Aquatic Therapy Techniques. 7th Annual Michigan Athletic Trainers' Society Athletic Training Student Seminar. Grand Valley State University, Allendale, MI.
- 9) Stark, MA, **Miller MG.** (2008). Nurses' perceptions of the use of hydrotherapy in labor. 26th Annual Kalamazoo Community Medical Health and Sciences Research Day. Western Michigan University, Kalamazoo, MI.
- 8) Gravlin JJ, Mosco MA, Baker RR, **Miller MG**, Tooker RM. (2008). Incidence rates and common protocols of prevention and treatment for Community-Acquired Methicillin-Resistant Staphylococcus Aureus (CA-MRSA) among collegiate athletics. 26th Annual Kalamazoo Community Medical Health and Sciences Research Day. Western Michigan University, Kalamazoo, MI.
- 7) Crelinsten AD, **Miller MG.** (2008). Effectiveness in improving performance with the Bigger Faster Stronger in-season training program. 26th Annual Kalamazoo Community Medical Health and Sciences Research Day. Western Michigan University, Kalamazoo, MI.
- 6) **Miller MG.** (2006). Adolescents and Steroids. 15th Annual Michigan Athletic Trainers' Society Professional Educators Conference. Michigan State University, MI.
- 5) Malolepszy L, Berry DC, **Miller MG**. (2001). Internal Hemorrhoids in a Female Collegiate Soccer Player. Poster Presentation. Ohio Athletic Trainers' Association Annual Meeting, Columbus. OH.
- 4) **Miller MG**. (1999). Advising Athletes on Today's Performance Enhancing Supplements. West Virginia Athletic Trainers' Association Annual Symposium, Buckhannon, WV.
- 3) Miller MG. (1994). Picking Up the Pace Mid West AAHPERD Convention. Morgantown, WV.
- 2) Miller MG. (1994). Taping Procedures Mid West AAHPERD Convention. Morgantown, WV.
- 1) **Miller MG**. (1994). Management of Acute Ankle Sprain AIM Symposium. West Virginia University, Morgantown, WV.

INVITED

- 8) **Miller MG**. (2011). Aquatic Therapy. MATS Student Symposium, Grand valley State University, Granville, MI.
- 7) **Miller MG**. (2010). Aquatics for Athletic Trainers. UNLV Sports Medicine Distinguished Lecture Series, Las Vegas, NV.

- 6) **Miller MG**. (2008). Asthma for Athletes. Middle Tennessee State University Distinguished Lecture Series, Murfreesboro, TN.
- 5) **Miller MG**. (2008). Aquatics as a Tool for Athletes. Middle Tennessee State University Distinguished Lecture Series, Murfreesboro, TN.
- 4) Miller MG. (2005). Asthma in Athletics. Texas Asthma Coalition; Austin Tx.
- 3) **Miller MG**, Baker RM. (2005). Press Release- Asthma in Athletics. NATA National Convention, Indianapolis, IN.
- 2) **Miller MG**. (1996). Fitness Programming. Jacksonville Naval Air Station Wellness Program. Jacksonville, Fl.
- 1) **Miller MG**. (1994). Strength Considerations of Male and Female Adolescents. Mineral County Schools, Keyser, WV.

PUBLICATIONS

ABSTRACTS (refereed)

- 53) **Miller MG,** Harvatt C, Hirsch K, Holcomb WR. (2017). Network analysis of clinical placement of athletic training students. *Journal of Athletic Training*, 52(6): S-29.
- 52) **Miller MG**, Dahl WO, Ledwon RW, Sullivan TL, Hanson NJ, Michael TJ, Hatzel B. (2016). Electromyography and force comparison of the quadriceps after application of specialty tapes for muscle activation over time. *Journal of Strength & Conditioning Research*, 30(Supplement):S127.
- 51) **Miller MG**, Boike TS, Mass CJ, Holcomb WR, Hanson NJ, Michael TJ. (2016). The effect of low level laser therapy on delayed onset muscle soreness of the biceps brachii. *Journal of Strength & Conditioning Research*, 30(Supplement):S29.
- Reynolds S, Gaudette R, Swartzwelder S, **Miller MG**. (2016). The inclusion of emotional intelligence competencies in professional athletic training education programs. *Journal of Athletic Training*, 51(6): S-214.
- 49) Hanson NJ, Buckworth J, **Miller MG**, Michael TJ. (2016). Teleoanticipation and effects of sex differences on pacing strategy. *Journal of Strength & Conditioning Research*, 30(Supplement 1):S19.

- 48) Holcomb WR, Bremner CB, Brown CD, **Miller MG**. (2016). Assessment of the learning effect with repeated isometric strength testing at two knee flexion angles. *Journal of Strength & Conditioning Research*, 30(Supplement 1):S36.
- 47) **Miller MG**, Depudyt T, Holcomb WR, Humason M, Prater D. (2016). The effects of specialty tape on balance of the lower leg and ankle. *Journal of Strength & Conditioning Research*, 30(Supplement 1):S146.
- 46) **Miller MG,** Kolean J, Jones S, , Holcomb WR, Bremner CB. (2016). Effects of Kinesio Tape on blood flow in the biceps brachii. *Journal of Strength & Conditioning Research*, 30(Supplement 1):S118.
- 45) Holcomb WR, Bremner CB, Brown CD, **Miller MG**. (2015). Assessment of Patient Comfort During NMES-Induced Quadriceps Contractions at Two Knee Joint Angles. *Journal of Athletic Training*, 50(6), S-182.
- 44) **Miller MG**, Burningham DS, Bratton W, Hatzel B, Holcomb WR, Bremner CB. (2014). The effects of KinesioTape inhibitory activity of the middle deltoid muscle. *Journal of Strength & Conditioning Research*, 28(12):124-125.
- 43) **Miller MG**, J. Troiano, C. Larsen, R. Ramirez, W. Holcomb (2013). Effects of PNF Stretching Following Crushed Ice Versus Wetted Ice on Hamstring Flexibility. *Journal of Strength & Conditioning Research*, 27(10), S29.
- 42) Krasinski D, Thrasher A, **Miller MG**, Holcomb WR. (2013). Effects of Applied Pressure on Intramuscular Temperature During Ultrasound Treatments. *Journal of Athletic Training*, 48 (3), S-246.
- 41) Cavett H, **Miller MG**, Cheatham CC, Holcomb WR. (2011). Effects of Premodulated Electrical Stimulation on Muscular Blood Flow in the Gastrocnemius. *Journal of Athletic Training*, 46 (3), S-130.
- 40) Knight BD, Oney JR, **Miller MG**, Gyorkos AM. (2011). Comparison of Self Adherent and Cloth Tape on Dynamic Ankle Inversion Before and After Exercise. *Journal of Athletic Training*, 46 (3), S-111.
- 39) Standley RA, Cheatham CC, **Miller MG**, Michael TJ, Baker RJ, and Liu Y. (2010). Effects of High Dose Fish Oil Supplementation on Delayed Onset Muscle Soreness and Inflammatory Markers. Medicine and Science in Sports and Exercise. 42(5): S539.
- 38) Lambert DM, Ellson AE, Michael TJ, Cheatham CC, **Miller MG**, Lininger M. (2010). The Effect of Environmental Conditions on Producing a Given OMNI-RPE During Steady State Exercise. Medicine and Science in Sports and Exercise. 42(5): S472.

- 37) **Miller MG**, Ploeg AH, Dibbet TJ, Holcomb WR, Berry DC, O'Donoghue J. (2010). The Effects of High-Volume Aquatic Plyometric Training on Vertical Jump, Muscle Power, and Torque. *Journal of Strength & Conditioning Research*. 24(Suppl 1)
- 36) Neitzke H, **Miller MG**, Cheatham CC, O'Donoghue J. (2010). Preplanned and reactive Agility Training Influence on Agility Test Performance in male Adolescents. *Journal of Strength & Conditioning Research*. 24(Suppl 1)
- 35) Milos G, Cheatham CC, **Miller MG**, Michael TJ, Query J. (2009). Effects of Resistance Exercise of Different Intensity but Equal Work on Excess Post-Exercise Oxygen Consumption. Medicine & Science in Sport & Exercise, 41 (5), 139.
- 34) Eberhardt MJ, Bova SM, , **Miller MG**, Cheatham CC, Baker RJ, Webb D, Michael TJ. (2009). The Effects of Ultrasound Heating on Intramuscular Blood Flow Characteristics in the Gastrocnemius. *Journal of Athletic Training*, 44 (3), S-57.
- 33) Crelinsten AD, **Miller MG**. (2008). Effectiveness In Improving Performance With The Bigger Faster Stronger In-Season Training Program. *Journal of Strength & Conditioning Research*. 22(6):65
- 32) Chaloupka H, Robinson T, Michael T, **Miller MG**. (2008). The Effects of Massage on Muscle Force production in the Agonist and Antagonist Muscles of the Thigh. *Journal of Strength & Conditioning Research*. 22(6):103
- 31) Lininger ML, **Miller MG**, Michael TJ, Baker RJ, Holcomb WR, Berry DC. (2008). An Exploratory Study of Ketoprofen Drug Concentrations in Swine Tissue using Ultrasound with Pluronic Lecithin Isopropyl Palmatate Coupling Medium. *Journal of Athletic Training 43 (3)*, S-83.
- 30) Berry DC, **Miller MG**, Berry LM. (2008). Intra and Intertester Reliability of Computer Aided Lateral Digital Photography Goniometry at the Knee Joint. *Journal of Athletic Training 43 (3)*, S-53.
- 29) **Miller MG**, Longoria JR, Cheatham CC, Michael TJ, Baker RJ. (2007). A Comparison of Tissue Temperature Differences between the Midpoint and Peripheral Effective Radiating Area during 1 and 3 Mhz Ultrasound Treatments. *Journal of Athletic Training 42 (2)*, S-40.
- 28) Dykstra JH, Hill HM, **Miller MG**, Cheatham CC, Michael TJ, Baker RJ. (2007). Effects of Cubed Ice, Crushed Ice, and Wet Ice on Cutaneous and Intramuscular Temperature Changes of the Gastrocnemius. *Journal of Athletic Training 42 (2*), S-65.
- 27) Berry DC, **Miller MG**, Berry LM. (2007). Intra-and Intertester Reliability of Computer Aided lateral Digital Photography Goniometry at the Ankle Joint. *Journal of Athletic Training 42 (2)*, S-91.

- 26) Groth JG, Ayers SF, **Miller MG**, Arbogast WD. (2007). Self-Reported Health and Fitness Habits of Certified Athletic Trainers. *Journal of Athletic Training 42 (2)*, S-118.
- Lininger MR, Cheatham CC, **Miller MG**, Michael TJ. (2007). The Influence of Exercise Protocol on the Determination of Lactate Threshold. *Journal of Athletic Training 42* (2), S-119.
- 24) Doyle AT, Cheatham CC, **Miller MG**, Michael TJ, Baker RJ, Spitsbergen JM. (2007). The Effects of Dexamethosone Iontophoresis on an Acute Muscle Injury of the Biceps Brachii. *Journal of Athletic Training 42 (2)*, S-133.
- 23) **Miller MG**, Stacey RR, Eslinger DE, Cheatham CC, Michael TJ. (2006). The effect of high and low glycemic index foods on repeated high intensity exercise performance. *Journal of Athletic Training 41* (2), S-86.
- Porter AR, Hennigar DM, **Miller MG**, Ricard MD, Cheatham CC, Berry DC. (2006). Comparisons of chest and waist deep water on aquatic plyometric training programs on average force, power, and vertical jump. *Journal of Athletic Training 41 (2)*, S-86.
- 21) Ganschow RL, **Miller MG**, Holcomb WR, Cheatham CC, Michael TJ, Rubley MD. (2006). The effects of subcutaneous tissue thickness on peak torque and intensity output of neuromuscular electrical stimulation. *Journal of Athletic Training 41 (2)*, S-96.
- 20) Holcomb WR, Rubley MD, **Miller MG**, Girouard TJ. (2005). Effect of rest interval on knee extensor torque production when using neuromuscular electrical stimulation. *Journal of Athletic Training 40 (2)*, S-68.
- 19) Hills-Meyer P, **Miller MG**, Ricard MD, Michael TJ. (2005). The effects of bicycle frame geometry on muscle activation and power during a wingate anaerobic test *Journal of Athletic Training 40 (2)*, S-93.
- 18) Berry DC, **Miller MG**, Berry LM. (2004). Athletic training students' perceptions of their clinical field experience: A qualitative examination. *Journal of Athletic Training 39 (2)*, S-12.
- 17) Roth A, **Miller MG**, Ricard M, Ritenour D, Chapman B. (2004). Comparison of land and aquatic balance training. *Journal of Athletic Training 39* (2), S-98.
- 16) Kelly J, **Miller MG**, Ricard M, Ritenour D. (2004). Land based and aquatic based plyometric training has no effect on balance. *Journal of Athletic Training 39 (2)*, S-95.
- 15) Primm MJ, **Miller MG**. (2003). Knowledge of type 1 diabetes mellitus of licensed athletic trainers in Ohio. *Journal of Athletic Training 38 (2)*, S-113.

- 14) Schlumbohm SL, **Miller MG**, Brylinsky JA, Thompson GA. (2003). Perception of the treatment efficacy of therapeutic magnets on pain control of exercise induced muscle soreness in the non-dominant wrist and forearm in high school athletes. *Journal of Athletic Training 38 (2)*, S-35.
- Toonstra JL, **Miller MG**, Ritenour DM, Schutten MC. (2003). Institutional barriers in obtaining CAAHEP accreditation: A comparison study. *Journal of Athletic Training 38* (2), S-39.
- 12) Blecha KM, **Miller MG**, Ritenour DM, Baker RJ. (2003). Traumatic pneumothorax in a collegiate football player. *Journal of Athletic Training 38* (2), S-54.
- 11) **Miller MG**, Berry DC, Berry LM, Wroble RR. (2002). Surgical intervention for iliotibial band friction syndrome. *Journal of Athletic Training 37 (2)*, S-58-S-59.
- 10) Berry DC, **Miller MG**, Berry LM. (2002). Utilizing time and active learning in athletic training clinical education: Reported through the eyes of athletic training students. *Journal of Athletic Training 37 (2)*, S-80.
- 9) **Miller MG**, Berry DC, Holcomb WR. (2000). Student and instructor knowledge similarities as determined by the pathfinder program. *Journal of Athletic Training 35 (2)*, S-55.
- 8) Caswell SV, Deivert RG, **Miller MG**, Berry DC. (2000). Lacrosse helmet designs and the effects of impact forces. *Journal of Athletic Training 35 (2)*, S-74.
- 7) Nonnemacher MN, Loriz LM, Kleiner DM, **Miller MG**. (1999). A comparison of the fitness knowledge acquired by students in athletic training and other allied health professions. *Journal of Athletic Training* 34 (2), S-7.
- 6) Loriz LM, **Miller MG**. (1998). A comparison of HIV/AIDS knowledge and attitudes of entry level athletic training and nursing students. *Journal of Athletic Training 33 (2),* S-62.
- 5) Holcomb WR, Kleiner DM, **Miller MG**. (1998). The effects of long-term ankle bracing on balance. *Journal of Athletic Training 33 (2),* S-39.
- 4) Guadagnoli MA, Kleiner DM, Holcomb WR, **Miller MG**. (1998). The assessment of leg dominance by motor function, proprioception, and strength. *Journal of Athletic Training 33 (2)*, S-23.
- 3) **Miller MG**, Kleiner DM, Holcomb WR. (1997). A comparison of the fitness knowledge between students of athletic training and other allied health professions. *Journal of Athletic Training 32 (2)*, S-47.
- 2) Holcomb WR, Kleiner DM, **Miller MG**. (1997). The effects of long term ankle bracing on strength of the ankle musculature. *Journal of Athletic Training 32 (2)*, S-13.

1) Francis K, Kleiner DM, Holcomb WR, **Miller MG**. (1997). The effects of long term ankle bracing on size and range of motion of the ankle. *Journal of Athletic Training 32 (2)*, S-42.

MANUSCRIPTS

- Kendall, B.J., Michael, T.J., Weideman, C, & Miller, M.G. (2017). The Acute Effects of Static Stretching Compared to Dynamic Stretching with and without an Active Warm up on Anaerobic Performance. *International Journal of Exercise Science*, 10(1), 53.
- 52) Hanson NJ, **Miller MG**, Michael TJ. Deception of ambient temperature does not elicit performance benefits during a 5KM run in hot, humid conditions. JSCR *in press*
- 51) Mohney G, **Miller MG**, Hanson NJ. (2017). Strengthening the figure skater: Considerations for injury prevention and performance. *Strength and Conditioning Journal*. 39(3): 58-65.
- 80) Rossi FE, Schoenfeld BJ, Ocetnik S, Young J, Vigotsky A, Contreras B, Krieger JW, **Miller MG**, Cholewa J. (2016). Strength, body composition, and functional outcomes in the squat versus leg press exercises. J Sports Med Phys Fitness, Oct 13.
- 49) Weitzel RL, **Miller MG**, Giannotta ER, Newman CJ. (2015). High school athlete's perceptions and knowledge of the skills and job requirements of the certified athletic trainer. *Journal of Athletic Training*,
 - 15(50): 1286-1291.
- 48) **Miller MG**, Michael TJ, Nicholson KS, Petro RV, Hanson NJ, Prater DR. (2015). The effect of Rocktape on rating of perceived exertion and cycling efficiency. J Strength Cond Res, 29(9): 2608-2612.
- 47) Bremner, CB, Holcomb, WR, Brown, CD, & Miller, MG. (2015). Assessment of comfort during NMES-induced quadriceps contractions at two knee joint angles. Athletic Training & Sports Health Care, 7(5), 181-189. doi: 10.3928/19425864-20150831-03
- 46) **Miller MG,** Thompson G, Rice A, Endres C, Scholma J. (2015). The Effects of Visual Feedback on CPR Skill Retention in Graduate Student Athletic Trainers. *J Sports Med Allied Health Sci*, 2(1): 1-5.
- 45) **Miller MG**, Cavett H, Holcomb WR, Cheatham CC, Thompson G. (2015). Effects of Premodulated Electrical Stimulation on Intramuscular Blood Flow of the Gastrocnemius. *Athletic Train & Sports Health Care*. 7(2): 64-69.
- 44) Larsen, CC, Troiano, JM, Ramirez, RJ, **Miller, MG**, Holcomb, WR. (2015). Effects of crushed ice and wetted ice on hamstring flexibility. *J Strength Cond Res*, 29(2): 483–488.

- 43) Krasinski D, Thrasher A, **Miller MG**, Holcomb WR. (2013). Effects of Transducer Mass on Intramuscular Temperature During Ultrasound Treatments. *Journal of Sport Rehab*. 22: 296-300.
- 42) Holcomb WR, Rubley MD, Liceralde P, Tandy RD, **Miller MG**. (2013). <u>Intramuscular Temperatures</u>
 <u>Within a Treatment Template With Varying Ultrasound Soundhead Velocities</u>. *Athletic Training & Sports Health Care*, 5(3):129-134.
- 41) Magura S, **Miller MG**, Michael T, Bensley R, Burkhardt JT, Puente AC, Sullins C. (2012). Novel Electronic Refreshers for Cardiopulmonary Resuscitation: A Randomized Controlled Trial. *BMC Emergency Medicine*, *21*; 12-18.
- 40) Knight B, Oney J, **Miller MG**, Gyorkos A. (2012). Comparison of Self-Adherent and Cloth Tape on Dynamic Ankle Inversion Before and After Exercise. *Athletic Training & Sports Health Care*, 4(2): 87-93.
- 39) Casa DJ, Guskiewicz KM, Anderson SA, Courson RW, Heck JF, Jimenez CC, McDermott BP, **Miller MG**, Stearns RL, Swartz EE, Walsh KM. (2012). National Athletic Trainers' Association Position Statement: Preventing Sudden Death in Sports. *Journal of Athletic Training*, 47(1):96-118.
- 38) Holcomb WR, Miller MG, Rubley MD. (2012). Importance of Comprehensive Hip Strengthening. *Strength and Conditioning Journal*. 34(1): 16-19.
- 37) Stark MA, Craig J, **Miller MG.** (2011). Designing an Intervention: Therapeutic Showering in Labor. *Applied Nursing Research*, 24; e73-e77.
- 36) Doyle AT, Cheatham CC, **Miller MG**, Michael TJ, Baker RJ, Spitsbergen JM. (2011). Effects of Dexamethasone Iontophoresis: Acute Muscle Injury of the Biceps Brachii. *Athletic Training & Sports Health Care*, 3(6), 260-270.
- 35) Miller MG, Holcomb, WR. (2010). Water Power. Training & Conditioning, December, No. 9: 20-25.
- 34) **Miller MG,** Cheatham CC, Patel ND. (2010). Resistance Training for Adolescents. Pediatric Clinics of North America, 57(3): 671-682.
- 33) Stark MA & **Miller MG.** (2010). Development and Testing of Nurses' Perceptions of the Use of Hydrotherapy in Labor Questionnaire. *Journal of Nursing Measurement*, 18 (1), 36-48.
- 32) Standley RA, Miller MG, Binkley H. (2010). Massage's Effect on Injury, Recovery, and Performance: A Review of Techniques and Treatment Parameters. *Strength and Conditioning Journal*. 32(2): 64-67.
- 31) Ploeg AH, **Miller MG**, Holcomb WR, O'Donoghue J, Berry DC, Dibbet TJ. (2010). The Effects of High Volume Aquatic Plyometric Training on Vertical Jump, Muscle Power, and Torque. *International Journal of Aquatic Research and Education*. 14 (1):39-48

- 30) Stark MA & **Miller MG.** (2009). Barriers to the Use of Hydrotherapy in Labor. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. 38 (6): 667-675.
- 29) Randolph SM, Holcomb WR, Rubley MD, **Miller MG**. (2009). Assessment of Torque and Perceived Pain during Ten Repetitions of Neuromuscular Electrical Stimulation. *Athletic Training and Sports Health Care*. 1:162-168.
- 28) Lininger MR & Miller MG. (2009). Iliotibial Band Syndrome in the Athletic Population: Strengthening and Rehabilitation Exercises. *Strength and Conditioning Journal*. 31(3): 43-46.
- 27) Dykstra JH, Hill HM, **Miller MG**, Cheatham CC, Michael TJ, Baker RJ. (2009). Comparisons of Cubed Ice, Crushed Ice, and Wetted Ice on Intramuscular and Surface Temperature Changes. *Journal of Athletic Training*, 44(2):136-141.
- 26) Groth JJ, Ayers SF, Miller MG, Arbogast WD. (2008). Self-reported Health and Fitness Habits of Certified Athletic Trainers. *Journal of Athletic Training*. 43(6):617-623.
- 25) **Miller MG,** Longoria JR, Cheatham CC, Baker, RJ, Michael, TJ. (2008). Intramuscular Temperature Differences between the Mid-point and Peripheral Effective Radiating Area with Ultrasound. *Journal of Sport Science and Medicine*. 7 (2), 286-291.
- 24) **Miller MG,** Cheatham CC, Holcomb WR, Ganschow R, Michael TJ, Rubley MD. (2008). Subcutaneous Tissue Thickness Alters the Effects of NMES. *Journal of Sport Rehab.* 17 (1): 68-75.
- Berry DC, **Miller MG**. (2008). Crossword Puzzles as a Tool to Enhance Athletic Training Student Learning: Part 1. *Athletic Therapy Today*. 13(1): 29-31.
- Berry DC, **Miller MG**. (2008). Crossword Puzzles as a Tool to Enhance Athletic Training Student Learning: Part 2. *Athletic Therapy Today*. 13(1): 32-34.
- 21) Berry DC, **Miller MG**, Berry LM. (2007). An Analysis of the Professional Journal Reading Habits and Attitudes of Certified Athletic Trainers. *International Council for Health, Physical Education, Recreation, Sport, and Dance Journal of Research*, 2(2): 12-18.
- 20) **Miller MG**, Cheatham CC, Porter AR, Ricard MD, Hennigar D, Berry DC. (2007). Chest- and Waist-deep Aquatic Plyometric Training and Average Force, Power, and Vertical-jump Performance. *International Journal of Aquatic Research and Education*, 1(2): 145-155.
- 19) **Miller MG**, Berry DC. (2007). Back in the Saddle Again: How to Prevent Cycling Saddle Sores. *Athletic Therapy Today*. 12(4): 19-21.

- 18) Roth AE, **Miller MG**, Ricard MD, Ritenour D, Chapman BL. (2006). Comparison of Static and Dynamic Balance Following Training in Aquatic and Land Environments. *Journal of Sport Rehabilitation*, 15(4):299-311.
- 17) **Miller MG**, Berry DC, Gariepy GS., Titter, JG. (2006). Attitudes of High School Ice Hockey Players toward Mouthguard Usage. *Internet Journal of Allied Health Sciences and Practice*, *4* (4), 1-6.
- 16) **Miller MG**, Herniman JH, Ricard MD, Cheatham CC, Michael TJ. (2006). The effects of a 6-week plyometric training program on agility. *Journal of Sports Science and Medicine*, 5(3):459-465.
- Holcomb WR, Rubley MD, **Miller MG**, Girouard TJ. (2006). The Effect of Rest Intervals on Knee Extension Torque Production with Neuromuscular Electrical Stimulation. *Journal of Sport Rehab.* 15 (2):116-124.
- 14) Ricard MD, Hills-Meyer P, Miller MG, Michael TJ. (2006). The Effects of Bicycle Frame Geometry on Muscle Activation and Power during a Wingate Anaerobic Test. *Journal of Sports Science and Medicine*. 5, 25-32.
- 13) Berry DC, **Miller MG**. (2006). Digital Video Technology in Athletic Training, part 1: Understanding its Uses and Effects. *Athletic Therapy Today*. 11(2): 46-48.
- 12) Berry DC, **Miller MG**. (2006). Digital Video Technology in Athletic Training, part 2: Creating an Instructional Digital Video. *Athletic Therapy Today*. 11(3): 26-29.
- 11) Berry DC, **Miller MG**. (2006). Demonstrating External Bleeding and Shock. *Athletic Therapy Today*. 11(4): 22-23.
- 10) Miller MG, Weiler J, Baker B, Collin J, D'Alonzo G. (2005). National Athletic Trainers' Association Position Statement: Management of Asthma in Athletes. *Journal of Athletic Training*. 40(3):224-245.
- 9) Berry DC, Miller MG, Leow W. (2005). Attitudes of Central Collegiate Hockey Association Ice Hockey Players toward Athletic Mouthguard Usage. *Journal of Public Health Dentistry.* 65(2): 71-75.
- 8) Berry DC, Miller MG, Berry LM. (2004). Effects of clinical field-experience setting on athletic training students' perceived percentage of time spent on active learning. *Journal of Athletic Training*. 39(2): 176-184.
- 7) Miller MG, Berry DC. (2002). An Assessment of Athletic Training Students' Clinical Placement Hours. *Journal of Athletic Training*. *37* (4): S229-S235.

- 6) Miller MG, Berry DC, Bullard S, Gilders R. (2002). Comparisons of Land-based and Aquatic-based Plyometric Programs during an 8-week Training Period. *Journal of Sport Rehabilitation*. 11(4): 268-283.
- 5) Malolepszy L, Berry DC, Miller MG. (2002). Internal Hemorrhoids and Diarrhea in a College Soccer Player. *Athletic Therapy Today*. *7* (4): 50-55.
- 4) Miller MG, Berry DC, Gilders R, Bullard S. (2001). Recommendations for Implementing an Aquatic Plyometric Program. *Strength and Conditioning Journal*. 23(6): 28-35.
- Berry DC, Miller MG. (2001). Athletic Mouthguards and Their Role in Injury Prevention. *Athletic Therapy Today*. *6* (5): 52-56.
- 2) Miller MG, Berry DC. (2000). Health-related Physical Fitness Knowledge of Student Allied Health Professions. *Evaluation & the Health Professions*. 23 (3): 305-318.
- 1) Miller MG, Housner, L. (1998). A Survey of Health-related Physical Fitness Knowledge Among Preservice and Inservice Physical Educators. *Physical Educator*. 55 (4): 176-186.

TEXTBOOKS

- 5) **Miller MG** &Berry DC. (2015). Emergency Response Management for Athletic Trainers, 2nd Edition. Baltimore, MD: Wolters Kluwer
- 4) **Miller MG** &Berry DC. (2010). Emergency Response Management for Athletic Trainers. Baltimore, MD:Wolters Kluwer/Lippincott Williams & Wilkins
- 3) Berry DC, **Miller MG**, Berry LM. (2010). Athletic & Orthopedic Injury Assessment. Scottsdale, AZ: Holcomb Hathaway
- 2) Berry DC, **Miller MG**, Berry LM. (2010). Case Responses & Interpretations to Athletic & Orthopedic Injury Assessment. Scottsdale, AZ: Holcomb Hathaway

1) Mangus BC & **Miller MG**. (2005). Pharmacology Application in Athletic Training. Philadelphia, PA: F.A. Davis

TEXTBOOK CHAPTERS

- 4) **Miller MG,** Baker RJ. (2014). Asthma. In D. Casa & Stears (Eds). *Emergency Management for Sports and Physical Activity.* Burlington, MA: Jones & Bartlett.
- 3) **Miller MG**, Baker RJ. (2011). Asthma. In D. Casa (Ed). *Preventing Sudden Death in Sport and Physical Activity*. Sudbury, MA: Jones & Bartlett.
- 2) **Miller MG**, Michael TJ. (2009). Strength Training and Conditioning. In Patel, Greydanus, Baker (Eds). *Pediatric Practice: Sports Medicine*. New York, NY: McGraw Hill.
- 1) **Miller MG**, Robert D & Schober R. (2000). Fitness Education. In L. Housner (Ed.), *Integrated Physical Education: A Guide for the Elementary Classroom Teacher*. Morgantown, WV: Fitness Information Technology, Inc.

INVITED BOOK REVIEWS

- 5) Marcia Anderson, Susan Hall, and Malissa Martin. Foundations of Athletic Training: Prevention, Assessment, and Management. Philadelphia, PA: Lippincott Williams & Wilkins. *NATA News*, May 2005.
- 4) Everett Aaberg. Resistance Training Instruction Video Series Package Champaign, IL: Human Kinetics. *NATA New,* October 2002.
- 3) Behnke, R.S. Kinetic Anatomy. Champaign, IL: Human Kinetics. NATA News, February 2002.
- 2) Wiksten, D.L. & Peters, C. The Athletic Trainer's Guide to Strength and Endurance Training. Thorofare, NJ: SLACK Incorporated. *NATA News*, August 2001.
- 1) Alter, M.J. Sport Stretch (2nd ed.). Champaign, IL: Human Kinetics. Journal of Athletic Training, 33 (2), 185.

EVALUATION EXPERIENCE

2011- 2015 Research and Evaluation Consultant for iEval, Battle Creek, MI

APPENDIX C



External Evaluation Report

The THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

Office of College and University Evaluation

Evaluation Report Form for Program Proposals

Please refer to the Department's <u>guidance on external reviews</u> for information about when external reviews are required and the selection of external reviewers.

Institution: Lehman College **Human Performance and Fitness** Program title: Degree: Master of Science (MS) Date of evaluation: 1/18/18 External Reviewer Michael G. Miller Name (please print): **External Reviewer** Professor – Western Michigan University Title and Institution: **External Reviewer** Signature:

I. Program

1. Assess program purpose, structure, and requirements as well as formal mechanisms for program administration and monitoring.

The proposed Master degree program targets the physical fitness/activity needs of the general public and also fulfills a role to educated and advance scholarship in the prosed area. The degree also fills a need for a graduate degree program in the region, specifically the Bronx area where educational opportunities are difficult to obtain. The degree will enhance educational and scholarship opportunities of students and faculty and fit well with the department's overall strategic priorities. Additionally, the quality of faculty already housed within the department, and their national/international recognition will be an asset for student recruitment. The curriculum has the necessary components to meet the advanced educational need as proposed and the credits required for graduation falls within standard ranges of similar programs throughout the country.

2. Comment on the special focus of this program, if any, as it relates to the discipline.

The proposed Master degree in Human Performance and Fitness will concentrate on advancing knowledge and experiences in fitness/conditioning/scholarship and allow students who matriculate through the program to find meaningful employment opportunities. The program was developed based upon the requests of current undergraduate students seeking to further advance their education plus the trends of society and emphasis on exercise and employment prospects as defined by the U.S. Dept of Labor and Statistics. Upon examining program credits, the number advertised within and then calculated via course sequencing do not match, apparently with the total thesis credit hour requirement. Additionally, 12 credits for thesis (if this is the requirement) is extreme for master level, and usually associated with dissertation credit requirements.

3. Comment on the plans and expectations for continuing program development and self-assessment.

The evaluation plan covers the main aspects to determine program quality and effectiveness. However, other potential evaluation strategies may be including employment type/location data of students who graduate within 6 months and implementing employer evaluating of past students and recommendations for program improvement based upon job duties and responsibilities.

4. Assess available support from related programs.

Proposal appears to be a self-funding model, with initial support via the dept with the hopes that the program supports itself in years to come. Developing partnerships with local businesses or corporations may benefit the program for capital expenses, sponsorships of travel and research, and other expense items that often appear.

5. What is the evidence of **need** and **demand** for the program locally, in the State, and in the field at large? What is the extent of occupational demand for graduates? What is the evidence that demand will continue?

The need for this degree and program is evident in your geographic location, with no college/university offering such program and other master degree programs similar in nature are several hours of commute. I would like to know the existence of other "similar" titled and degree programs in the country, instead

of just comparing to exercise science or exercise physiology. I would also like to know how enrollment numbers were tabulated/justified to determine the program feasibility? Moreover, examples of potential employment placements and opportunities and how this would be different and more easily obtained compared to someone having an undergraduate degree would be useful.

II. Faculty

6. Evaluate the faculty, individually and collectively, in regard to training, experience, research and publication, professional service, and recognition in the field.

Currently, 3 faculty have been identified to oversee the program, all of whom are already employed at Lehman College. These faculty have a strong publication record and notoriety in the proposed degree area. Their leadership, knowledge of the proposed curriculum content and research acumen will enhance the educational opportunities of the students and more importantly, serve as mentors and conduits for future student employment. This area is the strongest component of the proposal and will lead and assist in recruiting highly qualified and more importantly, motivated students to enroll.

7. Assess the faculty in terms of **size** and **qualifications**. What are plans for future staffing?

A 4th faculty member to assist in the implementation of the program has been solicited. As such, beginning operational processes (teaching/research) appears to be overloaded on the current faculty, that have FTE already within the department. As the program comes to fruition, overload will be required and or release time and hiring of adjuncts to teach undergraduate courses or supervise laboratory projects/activities will be required. This was not identified in the current proposed budget. With an undergraduate program consisting of 300 students plus the anticipation of 100 future students at the graduate level (400 in total), even with the additional hire, a 1:100 faculty/student ratio will result in low quality and hardship when conducting research. The graduate degree proposed, with the number of students wanted, will require more than 1 additional faculty. Programs of that size (at the graduate level) often have 4-5 faculty, not counting faculty at the undergraduate level.

8. Evaluate credentials and involvement of adjunct and support faculty.

Limited information is provided to adequately answer this section. However, as mentioned previously, adjunct faculty/support faculty will be required to take on a larger role in the undergraduate degree to allow the qualified faculty identified in this proposal to be successful.

III. Resources

9. Comment on the adequacy of physical **resources** and **facilities**, e.g., library, computer, and laboratory facilities; practica and internship sites; and support services for the program, including use of resources outside the institution.

The library, with its current resources and ability of faculty and students to access information remotely is adequate. The courses in exercise testing and

prescription, advanced training methodologies, and biomechanics may require additional resources in order to ensure students are progressing in their knowledge and practical experiences beyond the undergraduate level. No internship/practical sites were proposed for students, but if this area becomes part of the program, resources may be required for student quality experiences. The additional hire of the proposed 1 faculty (and perhaps more) will require start-up packages, which is turn adds to the overall budget, but at the same time, may be useful in obtaining equipment necessary for the program and offset capital purchases. Funds for student travel to conferences to present research or capstone projects should be considered and integral for promoting Lehman College.

10. What is the **institution's commitment** to the program as demonstrated by the operating budget, faculty salaries, and the number of faculty lines relative to student numbers and workload.

The department and College appear to be vested in this degree and a generous package has been proposed, however, may fall short in terms of faculty required and equipment need for practical and research experiences of students and faculty. A larger initial investment may be required with timely boluses of funds as the program develops over the next 5-6 years.

IV. Summary Comments and Additional Observations

11. Summarize the major strengths and weaknesses of the program as proposed with particular attention to feasibility of implementation and appropriateness of objectives for the degree offered. Include any further observations important to the evaluation of this program proposal and provide any recommendations for the proposed program.

Strengths:

- 1. Qualified faculty with international recognition and research prowess
- 2. Academic program based upon societal needs and trends that will not dissipate over the years
- 3. Academic coursework advances undergraduate knowledge in the respective discipline
- 4. Increase the potential for many students to seek a terminal degree and may lead to Lehman College offer said degree program
- 5. Credits for program completion within normal realms of all master degree programs

Considerations:

- 1. More faculty/adjuncts may be required to meet the curricular offering and scholarship opportunities required
- 2. Processes for a current undergraduate to matriculate into the new master degree program
- 3. Suggest not concentrating on proposal justification of "increasing knowledge in sport" but for "...exercise and movement activities which includes "sports" coaching, etc"
- 4. How will educational background/undergraduate degrees related or even not

- related be factored into admissions? Especially students in the local area who now want a degree and work in the field
- 5. Might want to consider a stats course or embed stat concepts within the research methods course. Many PhD programs look for both types of classes for their admissions
- 6. Consider two options, capstone and thesis (and each one have more specific electives with less options) that will be useful for advancing their careers, for example, a student who wants to become a PhD would benefit from biomechanics as a requirement instead as an elective
- 7. Any practical or internship requirements?

APPENDIX D

Response to External Review

Program:

Response to: Comment on the special focus of this program, if any, as it relates to the discipline.

• Apparently our wording wasn't clear. The thesis option has 6 credits for the thesis and the capstone option has 3 credits for the capstone, consistent with the credits noted in the curriculum section. We have revised the wording to clarify as follows: After mapping out a program in advance with the Graduate Program Director, students must complete, with an average of B or better, 33 total credits in the Human Performance and Fitness degree program. All students will be required to take 18 credits in common core courses. Students wishing to pursue the thesis track option will take an additional 9 elective credits plus 6 credits of thesis. Students opting for the capstone track will take an additional 12 elective credits plus 3 credits of capstone.

Response to: Comment on the plans and expectations for continuing program development and self-assessment.

• We have revised the proposal to include following student career trajectories over time and using this information to determine whether modifications in curriculum are warranted to better serve the students.

Response to: Assess available support from related programs.

• We have amended the proposal to indicate that we will endeavor to develop sponsorships with supplement companies, equipment companies, hospitals, and other organizations to help offset costs for equipment, sponsorships of student travel for conferences and presentations, and other relevant expenses that may arise.

Response to: What is the evidence of **need** and **demand** for the program locally, in the State, and in the field at large? What is the extent of occupational demand for graduates? What is the evidence that demand will continue?

- The projected enrollment is based on the number of inquiries that we have received over the past several years, the marketing efforts that we will pursue, and the anticipated publicity that will be generated from the program's success. We have added text to address this issue.
- We have revised the text to note that there are a number of universities around the country that have degrees specific to Human Performance and Fitness, but that none exist within the greater New York area.
- We have added text to reflect the opportunities available for those who obtain a master's degree in the field.

Faculty:

Response to: Evaluate credentials and involvement of adjunct and support faculty.

• We have added text to discuss current adjunct roles in the program and hiring of an additional adjunct in the first year has been noted in the budget.

Resources:

Response to: Comment on the adequacy of physical **resources** and **facilities**, e.g., library, computer, and laboratory facilities; practica and internship sites; and support services for the program, including use of resources outside the institution.

We have consulted with the library staff and feel the resources are sufficient to carry out the program as intended. We have amended the proposal to factor in start-up packages for hired faculty into the budget. We have addressed the potential expenses for student travel as noted in the section above on available support, stating that we will endeavor to cover such outlays by sponsorships from outside organizations. There will not be an internship so the issue raised by the external reviewer would not be relevant in this regard.

Response to: What is the **institution's commitment** to the program as demonstrated by the operating budget, faculty salaries, and the number of faculty lines relative to student numbers and workload.

• The Exercise Science lab has received substantial internal and external funding over the past several years and we now possess a good amount of equipment and resources sufficient to carry out the master's program and provide students with a rich experience. As time goes on we will apply for additional grants to further support the program as needs arise.

Summary Comments and Additional Observations

Response to: More faculty/adjuncts may be required to meet the curricular offering and scholarship opportunities required

• We have added text to reflect that additional faculty may be required to meet the demand of the program, and will be requested as the need arises.

Response to: Processes for a current undergraduate to matriculate into the new master degree program

• We do not feel that current students should receive preferential consideration for entry into the program. As per the suggestion of the external reviewer, we have added text to reflect that undergrad students with a GPA of 3.0 or higher and who have taken >90 credits can take up to 12 credits of graduate classwork and receive credit for these classes at the master's degree level if/when they matriculate into our program.

Response to: Suggest not concentrating on proposal justification of "increasing knowledge in sport" but for "...exercise and movement activities which includes "sports" coaching, etc"

• We have revised the text to reflect the requested change.

Response to: How will educational background/undergraduate degrees related or even not related be factored into admissions? Especially students in the local area who now want a degree and work in the field

• We have revised the proposal to state that prospective students who do not meet the listed requirements can apply for special circumstances and admission will be considered on case-by-case basis.

Response to: Might want to consider a stats course or embed stat concepts within the research methods course. Many PhD programs look for both types of classes for their admissions

• The course in Advanced Research Methods (EXS 603) has a substantial statistics component. We have revised the description to reflect this fact.

Response to: Consider two options, capstone and thesis (and each one have more specific electives with less options) that will be useful for advancing their careers, for example, a student who wants to become a PhD would benefit from biomechanics as a requirement instead as an elective

• We feel that he two options are interchangeable in a student's career path. The options are intended to allow students a choice as to whether they want to carry out original research or rather immerse themselves in an exhaustive review and write up of current literature on a topic of interest. Thus, we do not feel a change is warranted in the curriculum based on option.

Response to: Any practical or internship requirements?

• Given the limited number of credits in a master's degree program, we feel the courses are best directed at the classroom and lab. Moreover, many if not most of the students in the program will be working, so they will be gaining practical experience while attending classes.

APPENDIX E

Curriculum Vitae of Faculty

Brad Schoenfeld

HIGHER EDUCATION:

A. DEGREES

Institution	Dates Attended	Degree and Major	Date
			Conferred
Rocky Mountain University	2011-2014	PhD in Health	2014
		Promotion and Wellness	
University of Texas Permian	2008-2010	M.S. in Exercise	2010
Basin		Science	
Pace University	1980-1985	B.A. in Management	1985

B. Additional higher education in progress

EXPERIENCE

A. TEACHING

Institution	Dates	Rank	Department
Lehman College	2014-present	Assistant Professor	Health Sciences
Rocky Mountain University	2014-present	Adjunct Professor	Health Science
Lehman College	2013-2014	Instructor	Health Sciences
Lehman College	2011-2013	Substitute Lecturer	Health Sciences
Lehman College	2010-2011	Adjunct Instructor	Health Sciences
Westchester Community	2010-2013	Adjunct Instructor	Physical
College			Education

EXPERIENCE

A. OTHER

Dates	Rank	Department
2017-present	Sports Nutrition	N/A
	Consultant	
1994-2011	Owner/Director	
	2017-present	2017-present Sports Nutrition Consultant

ACADEMIC AND PROFESSIONAL HONORS

- 2016 United States Sports Academy: Dwight D. Eisenhower Fitness Award for outstanding achievement in fitness and contributions to the growth and development of sport fitness through outstanding leadership activity
- 2011 Personal Trainer of the Year (National Strength and Conditioning Association)
- 2001 IDEA Master Trainer
- New York State Merit of Scholastic Achievement
- Alpha Chi Honor Society

PUBLICATIONS (last 5 years only)

- **Schoenfeld, B.J.**, Grgic, J. (2017). Evidence-based guidelines for resistance training volume to maximize muscle hypertrophy. *Strength and Conditioning Journal*, doi: 10.1519/SSC.000000000000363 [Epub ahead of print]
- Sugihara Junior, P., Ribeiro, A.S., Nabuco, H.C.G., Fernandes, R.R., Tomeleri, C.M., Venturini, D., Barbonsa, D.S., **Schoenfeld, B.J.**, Cyrino, E.S. (2017). Effects of whey protein supplementation associated with resistance training on muscular strength, hypertrophy and muscle quality in preconditioned older women. *International Journal of Sports Nutrition and Exercise Metabolism*. doi: 10.1123/ijsnem.2017-0253 [Epub ahead of print]
- Schoenfeld, B.J., Grgic. J. (2017). Eccentric overload training: A viable strategy to enhance muscle hypertrophy? *Strength and Conditioning Journal*, doi: 10.1519/SSC.0000000000000351 [Epub ahead of print]
- Ribeiro, A.S., Aguiar, A.F., **Schoenfeld, B.J.**, Nunes, J.P., Cavalcanti, E.F., Cadore, E.L., Cyrino, E.S. (2017). Effects of different resistance training systems on muscular strength and hypertrophy in resistance-trained older women. *Journal of Strength and Conditioning Research*, doi: 10.1519/JSC.000000000000002326 [Epub ahead of print]
- Ribeiro, A.S., Avelar, A., Nunes, J.P., **Schoenfeld, B.J.**, Tomeleri, C.M., Garcêz, H., Júnior, P.S., Fernandez, R.R., Silva, A.M., Cyrino, E.S. (2017). Creatine supplementation elicits greater muscle hypertrophy in upper than lower limbs and trunk in resistance-trained men. *Nutrition and Health*. doi: 10.1177/0260106017737013
- Grgic, J., Lazinica, B., Mikulic, P., Orlic, I., **Schoenfeld, B.J**. (2017). Should resistance training programs aimed at muscular hypertrophy be periodized? A systematic review of periodized versus non-periodized approaches. *Science and Sports*. doi: 10.1016/j.scispo.2017.09.005 [Epub ahead of print]
- Ribeiro, A.S., **Schoenfeld, B.J.**, Nascimento, M.A., Silva, A.M., Fleck, S.J., Sardinha, L.B., Cyrino, E.S. (2017). Effects of single set resistance training with different frequencies on a cellular health indicator in older women. *Journal of Aging and Physical Activity*, doi: 10.1123/japa.2017-0258 [Epub ahead of print]
- Nunes, J.P., Ribeiro, A.S., Schoenfeld, B.J., Cyrino, E.S. (2017). Comment on: "Comparison of Periodized and Non-Periodized Resistance Training on Maximal Strength: A Meta-Analysis". Sports Medicine, doi: 10.1007/s40279-017-0824-x. [Epub ahead of print]
- Cunha, P.M., Ribeiro, A.S., Tomeleri, C.M., Schoenfeld, B.J., Silva, A.M., Souza, M.F., Nascimento, M.A., Sardinha, L.B., Cyrino, E.S. (In Press). Effects of resistance training volume on osteosarcopenic obesity in older women. *Journal of Sports Science*. doi: 10.1080/02640414.2017.1403413. [Epub ahead of print]
- Fink, J., **Schoenfeld, B.J**. (2017). The role of hormones in muscle hypertrophy. *The Physician and Sportsmedicine*. doi: 10.1080/00913847.2018.1406778. [Epub ahead of print]

- **Schoenfeld, B.J.** (2017). NSAIDs may blunt more than pain. *Acta Scandinavia*, doi: 10.1111/apha.12990. [Epub ahead of print]
- Bocalini, D.S., Baker, J., **Schoenfeld, B.J**. (2017). Metabolic and hormonal responses to different resistance training systems in elderly men. *The Aging Male*. doi: 10.1080/13685538.2017.1379489. [Epub ahead of print]
- Ribeiro, A.S., **Schoenfeld, B.J.**, Nunes, J.P. (2017). Large and small muscles in resistance training: Is it time for a better definition? *Strength and Conditioning Journal*, 39(5), 33-35
- Ribeiro, A.S., Deminice, R. **Schoenfeld, B.J.**, Souza, M.F., Tomeleri, C.M., Padilha, C.S., Nascimento, M.A., Venturini, D. Barbosa, D.S., Cyrino, E.S. (2017). Effect of resistance training systems on oxidative stress in older women: a randomized controlled trial. *International Journal of Sport Nutrition and Exercise Metabolism*, doi: 10.1123/ijsnem.2017-0221. [Epub ahead of print]
- Miller, T., Mull, S., Aragon, A.A., Krieger, J., **Schoenfeld, B.J**. (2017). Resistance training combined with diet decreases body fat while preserving lean mass independent of resting metabolic rate. *International Journal of Sports Nutrition and Exercise Metabolism*.
- Schoenfeld, B.J., Grgic, J., Ogborn, D., Krieger, J. (2017). Strength and hypertrophy adaptations in high- versus low-load resistance training: A systematic review and meta-analysis. *Journal of Strength and Conditioning Research*. doi: 10.1519/JSC.000000000002200. [Epub ahead of print]
- Schoenfeld, B.J., Ogborn, D., Vigotsky, A., Franchi, M., Kreiger, J.W. (2017). Hypertrophic effects of concentric versus eccentric muscle actions: A systematic review and meta-analysis. *Journal of Strength and Conditioning Research*, 31(9):2599-2608
- Morton, R., Devries, M., Schoenfeld, B.J., Aragon, A.A., Krieger, J.W., Phillips, S.M. (2017). A systematic review, meta-analysis and meta-regression of the effect of protein supplementation on resistance training-induced gains in muscle mass and strength. *British Journal of Sports Medicine*. doi: 10.1136/bjsports-2017-097608. [Epub ahead of print]
- Lopes, C.R., Aoki, M.S., Crisp, A.H., Mattos, R.S., da Motta, G.R., **Schoenfeld, B.J.**, Marchetti, P.H. (2017). The effect of different resistance training load schemes on strength and body composition in trained men. *Journal of Human Kinetics*, 58, 177-186
- Fink, J., **Schoenfeld, B.J.,** Kikuchi, N., Nakazato, K. (2017). Effects of drop set resistance training on acute stress indicators and long-term muscle hypertrophy and strength. *Journal of Sports Medicine and Physical Fitness*, doi: 10.23736/S0022-4707.17.06838-4. [Epub ahead of print]
- McGill, S.M., **Schoenfeld, B.J.** (2017). Choosing Exercises: An example with "the crunch." *Personal Training Quarterly*, 4(2), 20-22
- Grgic, J., Lazinica, B., Mikulic, P., Orlic, I., Krieger, J.W., **Schoenfeld, B.J.** (2017). The effects of short versus long inter-set rest intervals in resistance training on measures of muscle hypertrophy: A systematic review. *European Journal of Sports Science*. 10.1080/17461391.2017.1340524
- Phillips, S.M., Arent, A., Esgro, B., Hamilton, D.L., Helms, E., Henselmans, M., Loenneke, J., Norton, L., Ormsbee, M., **Schoenfeld, B.J.**, Vucovich, M., Wilborn, C., Willoughby, D. (2017). Changes in body composition and performance with supplemental HMB-FA+ATP. *Journal of Strength and Conditioning Research*, doi: 10.1519/JSC.0000000000001760. [Epub ahead of print]
- Tomaszewsk, P., Milde, K., Majcher, A., Pyrzak, B., Sonmez, G.T., **Schoenfeld, B.J**. (2017). Body mass disorders in healthy short children and in children with growth hormone deficiency. *Advances in Experimental Medicine and Biology*. DOI 10.1007/5584_2017_65
- **Schoenfeld, B.J.** Contreras, B. (2017). The Roman Chair back extension is/is not a safe and effective exercise. *Strength and Conditioning Journal*. *39*(3), 42-45

- Martins, C.E.C., Lima, V.B., **Schoenfeld, B.J**., Tirapegui, J. (2017). Effects of leucine supplementation and resistance training on myopathy of diabetic rats. *Physiological Reports*. DOI: 10.14814/phy2.13273
- Grgic, J., Lazinica, B., Mikulic, P., Orlic, I., Krieger, J.W., Schoenfeld, B.J. (2017). The effects of short versus long inter-set rest intervals in resistance training on measures of muscle hypertrophy: A systematic review. *European Journal of Sports Science*. 10.1080/17461391.2017.1340524. [Epub ahead of print]
- Kerksick, C., Arent, A., Schoenfeld, B.J., Stout, J.R., Campbell, B., Wilborn, C., Taylor, L., Kalman, D., Smith-Ryan, A.E., Krieder, R.B., Willoughby, D., Arciero, P., VanDusseldorp, R., Ormsbee, M., Wilman, R., Greenwood, M., Ziegenfuss, R., Aragon, A.A., Antonio, J. (2017). International Society of Sports Nutrition Position Stand: Nutrient Timing Revisited. *Journal of the International Society of Sports Nutrition*.
- Aragon, A.A., Schoenfeld, B.J., Wildman, R., Kleiner, S., VanDusseldorp, T., Taylor, L., Earnest, C., Arciero, P., Wilborn, C., Kalman, D., Stout, J.R., Willoughby, D., Campbell, B., Arent, S., Bannock, L., Smith-Ryan, A., Antonio, J. (2017). International Society of Sports Nutrition Position Stand: Diets and Body Composition. *Journal of the International Society of Sports Nutrition*.
- Ribeiro, A.S., **Schoenfeld, B.J.**, Souza, M.F., Tomerli, C.M., Silva, A.M., Sardinha, L.B., Cyrino, E.S. (2017). Resistance training prescription with different load-management methods improves phase angle in older women. *European Journal of Sport Science*. Apr 10:1-9. doi: 10.1080/17461391.2017.1310932. [Epub ahead of print]
- Gentil, P., Del Vecchio, F.B., Paoli, A., **Schoenfeld, B.J.**, Bottaro, M. (2017). Isokinetic dynamometry and 1RM tests produce conflicting results for assessing alterations in muscle strength. *Journal of Human Kinetics*, 56, 19-27
- da Silva, J.J., **Schoenfeld, B.J.,** Marchetti, P.N., Pecoraro, S.L., D'Andréa Greve, J.M., Marchetti, P.H. (2017). Muscle activation differs between partial and full back squat exercise with external load equated between conditions. *Journal of Strength and Conditioning Research*. doi: 10.1519/JSC.000000000001713, [Epub ahead of print]
- dos Santos, Ribeiro, A.S., **Schoenfeld, B.J.**, Nascimento, M.A., Tomeleri, C.M., Souza, M.F., Pina, F.L.C., Cyrino, E.S. (2017). The improvement in walking speed induced by resistance training is associated with increased muscular strength but not skeletal muscle mass in older women. *European Journal of Sport Science*. DOI: 10.1080/17461391.2016.1273394, [Epub ahead of print]
- Fink, J., **Schoenfeld, B.J.,** Kikuchi, N., Nakazato, K. (2017). Acute and Long-term Responses to Different Rest Intervals in Low-load Resistance Training. *International Journal of Sports Medicine*. 38(2), 118-124
- Prestes, J., da Cunha Nascimento, D., de Sousa Neto, I.V., Pereira, G.B., Shiguemoto, R.A., de Andrade Perez, S.E., Schoenfeld, B.J. (2017). The effects of muscle strength responsiveness to periodized resistance training on resistin, leptin and cytokine in elderly post-menopausal women. *Journal of Strength and Conditioning Research*, DOI: 10.1519/JSC.000000000001718. [Epub ahead of print]
- Schoenfeld, B.J., Aragon, A.A., Wilborn, C., Urbina, S.L., Hayward, S.B., Krieger, J.W. (2017). Preversus post-exercise protein intake has similar effects on muscular adaptions in resistance-trained men. *PeerJ.* Jan 3;5:e2825. doi: 10.7717/peerj.2825.
- Marchetti, P.H. da Silva, J.J., Schoenfeld, B.J., Nardi, P.S.M, Pecoraro, S.L., D'Andréa Greve, J.M., Hartigan, E. (2016). Muscle Activation Differs between Three Different Knee Joint-Angle Positions during a Maximal Isometric Back Squat Exercise. *Journal of Sports Medicine*, doi: 10.1155/2016/3846123

- **Schoenfeld, B.J.**, Kolber, M. (2016). Point/Counterpoint: Abdominal Crunches Are/Are Not a Safe and Effective Exercise. *Strength and Conditioning Journal*. 38(6), 61-64
- Souza, M.F., Tomereli, C.M., Ribeiro, A.S., **Schoenfeld, B.J**., Silva, A.M., Sardinha, L.B., Cyrino, E.S. (2016). Effect of resistance training on phase angle in older women: a randomized controlled trial. *Scandinavian Journal of Medicine and Science in Sports*, DOI: 10.1111/sms.12745. [Epub ahead of print]
- **Schoenfeld, B.J.**, Ogborn, D., Krieger, J.W. (2016). The dose-response relationship between resistance training volume and muscle hypertrophy: Are there really still any doubts? *Journal of Sport Science*, 35(20), 1985-1987
- Ribeiro, A.S., **Schoenfeld, B.J.**, Fleck, S.J., Pina, F.L.C., Nascimento, M.A., Cyrino, E.S. (2016). Effects of traditional and pyramidal resistance training systems on muscular strength, muscle mass, and hormonal responses in older women: a randomized crossover trial. *Journal of Strength and Conditioning Research*. DOI: 10.1519/JSC.0000000000001653, [Epub ahead of print]
- Ribeiro, A.S., **Schoenfeld, B.J.**, Sardinha, L.B. (2016). Comment on: A review of the acute effects and long-term adaptations of single- and multi-joint exercises during resistance training. *Sports Medicine*. DOI: 10.1007/s40279-016-0664-0, [Epub ahead of print]
- Schoenfeld, B.J., Ogborn, D., Krieger, J.W. (2016). Dose-response relationship between weekly resistance training volume and increases in muscle mass: A systematic review and meta-analysis. *Journal of Sport Science*, 35(11), 1073-1082
- **Schoenfeld, B.J.** Contreras, B., Vigotsky, A., Peterson, M.D. (2016). Differential effects of heavy versus moderate loads on measures of strength and hypertrophy in resistance trained men. *Journal of Sport Science and Medicine*. 15, 715-722
- Schoenfeld, B.J., Wilson, J.M., Lowery, R, Krieger, J.W. (2016). Muscular adaptations in low-versus high-load resistance training: A meta-analysis. *European Journal of Sport Science*, 16(1), 1-10
- **Schoenfeld, B.J.**, Contreras, B. (2016). Attentional focus for maximizing muscle development: The mind-muscle connection. *Strength and Conditioning Journal*, 38(1), 27-29
- Tomeleri, C.M., Ribeiro, A.S., Souza, M.F., Schiavoni, D., **Schoenfeld, B.J.** Venturini, D., Barbosa, D.S., Landucci, K., Sardinha, L.B., Cyrino, E.S. (2016). Resistance training improves inflammatory level, lipid and glycemic profiles in obese older women: a randomized controlled trial. *Experimental Gerontology*, 84, 80-87
- Dieter, B., Schoenfeld, B.J., Aragon, A.A. (2016). The data does not seem to support a benefit to BCAA supplementation during periods of caloric restriction. *Journal of the International Society of Sports Nutrition*. DOI: 10.1186/s12970-016-0128-9
- Ribeiro, A.S., Pina, F.L., Dodero, S.R., Silva, D.R., **Schoenfeld, B.J.**, Sugihara Júnior, P., Fernandes, R.R., Barbosa, D.S., Cyrino, E.S., Tirapegui, J. (2016). Effect of conjugated linoleic acid associated with aerobic exercise on body fat and lipid profile in obese women: a randomized, double-blinded and placebo-controlled trial. *International Journal of Sport Nutrition and Exercise Metabolism.* 26(2), 135-44.
- Schoenfeld, B.J., Contreras, B., Vigotsky, A., Ogborn, D., Fontana, F., Sonmez, G.T. (2016). Upper body muscle activation during low- versus high-load resistance exercise in the bench press. *Isokinetics and Exercise Science*. 24, 217–224
- Ribeiro, A.S., Schoenfeld, B.J., Souza, M.F., Tomeleri, C.M., Venturini, D, Barbosa, D.S., Cyrino, E.S. (2016). Traditional and pyramidal resistance training systems improves muscular quality and metabolic biomarkers in older women: a randomized crossover study. *Experimental Gerontology*. 79, 8-15

- Schoenfeld, B.J., Ogborn, D., Contreras, B., Alvar, B.A., Cappaert, T., Ribeiro, A.S., Vigotsky, A. (2016). A comparison of increases in volume load over 8 weeks of low-versus high-load resistance training. *Asian Journal of Sports Medicine*, 7(1), e29247
- Contreras, B, Vigotsky, AD, **Schoenfeld, BJ**, Beardsley, C, Cronin, J. (2016). Effects of a six-week hip thrust versus front squat resistance training program on performance in adolescent males: A randomized-controlled trial. *Journal of Strength and Conditioning Research*, PMID: 27253835 [Epub ahead of print]
- Schoenfeld, B.J., Contreras, B., Ogborn, D., Galpin, A., Krieger, J., Sonmez, G.T. (2016). Effects of varied versus constant loading zones on muscular adaptations in well-trained men. *International Journal of Sports Medicine*, 37(6), 442-7
- **Schoenfeld, B.J.**, Ogborn, D., Kreiger, J.W. (2016). The effects of resistance training frequency on muscle hypertrophy: a meta-analysis. *Sports Medicine*. 46(11), 1689-1697.
- Rossi, F.E., **Schoenfeld, B.J.**, Ocetnik, S., Young, J., Vigotsky, A., Contreras, B., Krieger, J.W., Miller, M.G., Cholewa, J. (2016). Strength, body composition, and functional outcomes following free weight-and machine-based resistance training in the squat versus leg press exercises. *Journal of Sports Medicine and Physical Fitness*, PMID: 27735888, [Epub ahead of print]
- Ribeiro, A.S., Avelar, A., Sardinha, L.B., dos Santos, L., Silva, A.M., Gobbo, L.A., **Schoenfeld, B.J.**, Cyrino, E.S. (2016). Hypertrophy-type resistance training improves phase angle in young adult men and women. *International Journal of Sports Medicine*, 38(1), 35-40
- Schoenfeld, B.J., Pope, Z.K., Benik, F.M., Hester, G.M., Sellers, J., Nooner, J.L., Schnaiter, J.A., Bond-Williams, K.E., Carter, A.S., Ross, C.L., Just, B.L., Henselmanns, M., Krieger, J.W. (2016). Longer inter-set rest periods enhance muscle strength and hypertrophy in resistance-trained men. *Journal of Strength and Conditioning Research*, 30(7):1805-12
- **Schoenfeld, B.J.**, Aragon, A.A., Moon, J., Krieger, J.W., Sonmez, G.T. (2016). Comparison of amplitude-mode ultrasound versus air displacement plethysmography for assessing body composition changes following participation in a structured weight-loss programme in women. *Clinical Physiology and Functional Imaging*, doi: 10.1111/cpf.12355. [Epub ahead of print]
- Contreras, B., Vigotsky, A.D., Cronin, J., **Schoenfeld, B.J.**, Beardsley, C. (2016). A comparison of gluteus maximus, biceps femoris, and vastus lateralis EMG amplitude in the parallel, full, and front squat variations in resistance trained females. *Journal of Applied Biomechanics*, 32(1):16-22
- Hanney, W.J., Kolber, M., Pabian, P., Cheatham, S.W., **Schoenfeld BJ.**, Salamh, P.A. (2016). Endurance times of the thoracolumbar musculature: reference values for female resistance training participants. *Journal of Strength and Conditioning Research*, 30(2), 588-94
- Contreras, B, Vigotsky, AD, **Schoenfeld, BJ**, Beardsley, C, Cronin, J. (2016). A comparison of gluteus maximus, biceps femoris, and vastus lateralis EMG activity in the barbell, banded, and American hip thrust variations. *Journal of Applied Biomechanics*, 32(3), 254-60
- Ribeiro, A.S., Tomeleri, C.M., Souza, M.F., Pina, F.L., **Schoenfeld, B.J.**, Nascimento, M.A., Venturini, D., Barbosa, D.S., Cyrino, E.S. (2015). Effect of resistance training on C-reactive protein, blood glucose and lipid profile in older women with differing levels of RT experience. *AGE*. 37(6), 109
- Pope, Z.K., Willardson, J.M., **Schoenfeld, B.J**. (2015). Strength and hypertrophic response to eccentric resistance training with blood flow restriction. *International Journal of Sport Science and Coaching*, 10(5), 919-931
- Contreras, B., Vigotsky, A.D., **Schoenfeld, B.J.**, Beardsley, C., Cronin, J. (2015). A comparison of two gluteus maximus EMG maximum voluntary isometric contraction positions. *PeerJ*, 3:e1261; DOI 10.7717/peerj.1261

- Sonmez, G.T., Vatansever, S, Olcucu, B, Schoenfeld, B.J. (2015). Obesity, Food Intake and Exercise: Relationship with Ghrelin. *Biomedical Human Kinetics*, 7, 119–127.
- Pina, F.L.C., Ribeiro, A.S., Guariglia, D.A., **Schoenfeld, B.J.**, Cyrino, E.S. (2015). Effect of two-versus three-way split resistance training routines on body composition and muscular strength in bodybuilders: a pilot study. *International Journal of Sports Nutrition and Exercise Metabolism.* 25(6):559-65
- Contreras, B., Vigotsky, A.D., Cronin, J., **Schoenfeld, B.J.**, Beardsley, C. (2015). A comparison of gluteus maximus, biceps femoris, and vastus lateralis EMG activity in the back squat and barbell hip thrust exercises. *Journal of Applied Biomechanics*, 31(6):452-8
- Schoenfeld, B.J., Peterson, M.D., Ogborn, D., Contreras, B., Sonmez, G.T. (2015). Effects of low-versus high-load resistance training on muscle strength and hypertrophy in well-trained men. *Journal of Strength and Conditioning Research*, 29(10):2954-63
- Marchetti, P., Schoenfeld, B.J., da Silva, J., Guiselini, M., Freitas, F., Pecoraro, S., Gomes, W., Lopes, C. (2015). Muscle activation pattern during isometric ab wheel rollout exercise in different shoulder angle positions. *Medical Express*, 2(4), M150404
- Ribeiro, A.S., Souza, M.F., Pina, F.L.C., Nascimento, M.A., dos Santos, L., Antunes, M., Schoenfeld, B.J., Cyrino, E.S. (2015). Resistance training in older women: comparison of single vs. multiple sets on muscle strength and body composition. *Isokinetics and Exercise Science*. 23(1), 53-60
- Olcucu, B., Vatansever, G., Sonmez, G.T., **Schoenfeld, B.J**. (2015). Exercise and hormones related to appetite regulation. *Advances in Environmental Biology*, *9*(2), 1250-63
- Schoenfeld, B.J., Peterson, M.D., Ratamess, N., Contreras, B., Sonmez, G.T. (2015). Influence of Resistance Training Frequency on Muscular Adaptations in Well-Trained Men. *Journal of Strength and Conditioning Research*, 29(7):1821-9
- Carneiro, N.H., Ribeiro, A.S., Gobbo, L.A., Nascimento, M.A., Gobbi, S., Oliveira, A.R., Schoenfeld, B.J., Cyrino, E.S. (2015). Effects of different resistance training frequencies on flexibility in older women. Clinical Interventions in Aging, 10, 531–538
- **Schoenfeld, B.J.**, Aragon, A.A., Krieger, J.W. (2015). The effects of meal frequency on body composition: A meta-analysis. *Nutrition Reviews*. 73(2):69–82
- Kushner, A., Brent, J., **Schoenfeld, B.J.**, Hugentobler, J., Lloyd, R.S., Vermeil, A., Chu, D.A., Harbin, J., McGill, S.M., Myer, G. (2015). The back squat: Targeted training techniques to correct functional deficits and technical factors that limit performance. *Strength and Conditioning Journal*, *37*(2), 13-60
- **Schoenfeld, B.J.**, Ogborn, D., Krieger, J.W. (2015). Effect of repetition duration during resistance training on muscle hypertrophy: A systematic review and meta-analysis. *Sports Medicine*, 45(4):577-85
- Marchetti, P.H., Soares, E.G., Silva, F.H., Nardi, P.S., Serpa, E.P., Gomes, W.A., **Schoenfeld, B.J**. (2015). Acute effects of stretching routines with and without rest intervals between sets in the bounce drop jump performance. *International Journal of Sports Performance*. 5(1), 39-43
- Schoenfeld, B.J., Contreras, B., Sonmez, G.T., Wilson, J.M., Kolber, M., Peterson, M.D. (2015). Regional differences in muscle activation during hamstrings exercise. *Journal of Strength and Conditioning Research*. 29(1):159-64.
- Schoenfeld, B.J., Ivy, J. (2014). Point/Counterpoint: There is/is not a narrow post-exercise anabolic window for protein intake. *Strength and Conditioning Journal*. 36(6), 51-55
- Schoenfeld, B.J., Aragon, A.A., Wilborn, C.D., Krieger, J.W., Sonmez, G.T. (2014). Body composition changes associated with fasted versus non-fasted aerobic exercise. *Journal of the International Society of Sports Nutrition*. 11(1):54
- Myer, G.D., Kushner, A.M., Brent, J.L., **Schoenfeld, B.J.**, Hugentobler, J., Lloyd, R.S., Vermeil, A., Chu, D.A., Harbin, J., McGill, S.M. (2014). The back squat: A proposed assessment of functional

- deficits and technical factors that limit performance: Part I. Strength and Conditioning Journal, 36(6), 4-27.
- Ribeiro, A.S., **Schoenfeld, B.J.**, Cyrino, E.S. (2014). Effect of 16 weeks of resistance training on fatigue resistance in men and women. *Journal of Human Kinetics*, 42, 165-174
- Schoenfeld, B.J., Contreras, B., Sonmez, G.T., Willardson, J.M., Fontana, F. (2014). Muscle activation during low- versus high-load resistance training in well-trained men. *European Journal of Applied Physiology*. 114(12):2491-7
- Ribeiro, A.S., Romanzini, M., Avelar, A., **Schoenfeld, B.J.**, Cyrino, E.S. (2014). Effect of different warm up procedures on resistance training exercises performance. *Perceptual and Motor Skills*. 119(1):133-45
- Ribeiro, A.S., Avelar, A., **Schoenfeld, B.J.**, Souza, M.F. Padilha, C., Cyrino, E.S. (2014). Analysis of the training load during a hypertrophy-type resistance training program in men and women. *European Journal of Sport Science*. 15(4):256-64
- Henselmans, M., **Schoenfeld, B.J**. (2014). The Effect of Inter-set Rest Intervals on Resistance Exercise Induced Muscle Hypertrophy. *Sports Medicine*. 44(12):1635-43
- Helms, E., Fitschen, P.J., Aragon, A., Cronin, J., Schoenfeld, B.J. (2014). Recommendations for Natural Bodybuilding Contest Preparation: Resistance and Cardiovascular Training. *Journal of Sports Medicine and Physical Fitness*, 55(3):164-78
- **Schoenfeld, B.J.**, Contreras, B., Sonmez, G.T., Willardson, J.M., Fontana, F., Harris, R. (2014). An electromyographic comparison of a modified version of the plank with a long-lever and posterior tilt versus the traditional plank exercise: Implications for functional performance. *Sports Biomechanics*, 13(3), 296-306
- Andersen L.L., Behm, D.G., Maffiuletti, N.A., **Schoenfeld, B.J**. (2014). High-intensity physical training in the treatment of chronic diseases and disorders. *Biomedical Research International*, 2014:927304. doi: 10.1155/2014/927304. Epub 2014 May 5.
- **Schoenfeld, B.J.**, Ratamess, N., Peterson, M.D., Contrears, B., Sonmez, G.T., Alvar, B.A. (2014). Effects of different volume-equated resistance training loading strategies on muscular adaptations in well-trained men. *Journal of Strength and Conditioning Research*. 28(10), 2909-2018
- Ribeiro, A.S., Avelar, A., **Schoenfeld, B.J.**, Ritti-Dias, R.M., Altimar, L.R., Cyrino, E.S. (2014). Resistance training promotes increase in intracellular hydration in men and women. *European Journal of Sport Science*. *14*(6), 578-85
- **Schoenfeld, B.J.**, Contreras, B. (2014). The muscle pump: Mechanisms and applications for hypertrophic adaptations. *Strength and Conditioning Journal*, 36(3), 21-25
- Ogborn, D., **Schoenfeld, B.J**. (2014). The Role of Fiber Types in Muscle Hypertrophy: Implications for Loading Strategies. *Strength and Conditioning Journal*, *36*(2), 20-25
- **Schoenfeld, B.J.** (2014). The importance of maintaining objectivity in drawing evidence-based conclusions. *Sports Medicine*, 44(1), 143-145
- **Schoenfeld, B.J.**, Aragon, A.A., Krieger, J.W. (2013). The effect of nutrient timing on muscle strength and hypertrophy: A meta-analysis. *Journal of the International Society of Sport Nutrition*, 10(1), 53
- **Schoenfeld, B.J.**, Contreras, B. (2013). Is postexercise muscle soreness a valid indicator of muscular adaptations? *Strength and Conditioning Journal*, *35*(5), 16-21
- **Schoenfeld, B.J.** (2013). What is the minimum intensity threshold for resistance training-induced hypertrophic adaptations? *Sports Medicine*, 43(12), 1279-1288
- Brueilly, K.E., **Schoenfeld, B.J.**, Kolber, M.J., Darbouze, M.R. (2013). Post-Rehabilitation Exercise Considerations Following Hip Arthroplasty. *Strength and Conditioning Journal*, *35*(4):19-30

- **Schoenfeld, B.J.** (2013). Response to: Setting a good example of evidence-based practice. *Strength and Conditioning Journal*, 35(3), 102-103
- **Schoenfeld, B.J**, Contreras, B. (2013). Exercise technique: Long-lever posterior-tilt plank. *Strength and Conditioning Journal*, *35*(3), 98-99
- Sonmez, G.T., Ozen, S., Bugdaycı, G., Karlı, U., Cogalgil, S., **Schoenfeld, B**, Sozbir, K., Aydin, K. (2013). Effect of exercise on appetite-regulating hormones in overweight women. *Biology of Sport*, 30(2), 75-80
- Contreras, B., Cronin, J., **Schoenfeld, B.J.,** Nates, R., Sonmez, G.T. (2013). Are all hip extension exercises created equal? *Strength and Conditioning Journal*, *35*(2), 17-22
- Pope, Z.K., Willardson, J.M., **Schoenfeld, B.J**. (2013). Brief review: Exercise and blood flow restriction. *Journal of Strength and Conditioning Research*, 27(10), 2914-26
- **Schoenfeld, B.J.**, Sonmez, G., Kolber, MJ, Contreras, B., Harris, R., Ozen, S. (2013). Effect of hand position on EMG activity of the posterior shoulder musculature during a horizontal abduction exercise. *Journal of Strength and Conditioning Research*, 27(10), 2644-2649
- **Schoenfeld, B.** (2013). Post-exercise hypertrophic adaptations: A re-examination of the hormone hypothesis and its applicability to resistance training program design. *Journal of Strength and Conditioning Research*, 27(6):1720-1730
- Aragon, A., **Schoenfeld, B.J.** (2013). Nutrient timing revisited: Is there a post-exercise anabolic window? *Journal of the International Society of Sport Nutrition*, 10(1):5
- **Schoenfeld, B.J.** (2013). Potential Mechanisms for a Role of Metabolic Stress in Hypertrophic Adaptations to Resistance Training. *Sports Medicine*, 43(3), 179-194

BOOKS

- Schoenfeld, B.J. (2016). The Science and Development of Muscle Hypertrophy. Champaign, IL: Human Kinetics
- Schoenfeld, B.J. (2016). Strong & Sculpted. Champaign, IL: Human Kinetics
- Schoenfeld, B.J. (2013). The MAX Muscle Plan. Champaign, IL: Human Kinetics

BOOK CHAPTERS

- Schoenfeld, B.J. (2017). In: Alvar, B. (Ed.). Essentials of Tactical Strength and Conditioning. Champaign, IL: Human Kinetics
- Schoenfeld, B.J., Aragon, A.A. (2016). Vitamin and Mineral Needs. In: Kersick, C. (Ed.), Sports Nutrition Needs for Child and Adolescent Athletes. Boca Raton, FL: CRC Press
- Schoenfeld, B.J. (2016). Exercise Program Design and Delivery. In: CanFitPro (Eds.). Foundations of Professional Personal Training, 2nd Edition. Champaign, IL: Human Kinetics
- Alvar, B., Peterson, M., Schoenfeld, B.J. (2014). Progressive Resistance Training. In: Schoenfelder,
 D.P. (Series Ed.), Series on Evidence-Based Practice Guidelines, Iowa City, IA: The University of Iowa
 College of Nursing John A. Hartford Foundation Center of Geriatric Nursing Excellence.
- Aragon, A.A., Schoenfeld, B.J. (2013). Nutrient Timing Revisited. In: Coles, L. (Ed.), Functional Foods: The Connection Between Nutrition, Health, and Food Science. Boca Raton, FL: CRC Press
- Dawes, J. and Schoenfeld, B.J. (2013). Core Training Exercises. In Williardson, J. (Ed.), NSCA's Sports Performance Series: Developing the Core. Champaign, IL: Human Kinetics

CONFERENCE PRESENTATIONS

- Schoenfeld, B. (2017). Muscle Growth Across the Strength-Endurance Continuum: Is There an Optimal Hypertrophy Repetition Range? 14th Annual International Society of Sports Nutrition Conference. Phoenix, AZ.
- Schoenfeld, B. (2017). *How to Design the Optimal Hypertrophy Program.* Sports Performance Summit. Amsterdam, Netherlands
- Schoenfeld, B. (2017). *Manipulating Resistance Training Variables to Maximize Hypertrophy*. Sports Performance Summit. Amsterdam, Netherlands
- **Schoenfeld, B.** (2017). *Loading Strategies to Maximize Muscular Adapations*. 8th International Scientific Conference on Kinesiology. Opatija, Croatia
- Schoenfeld, B. (2017). *Manipulating Resistance Training Variables to Maximize Hypertrophy*. 8th International Scientific Conference on Kinesiology. Opatija, Croatia
- Schoenfeld, B. (2017). Loading Strategies to Maximize Muscular Adaptaions. Professional Fitness Systems Convention. Nicosia, Cyprus
- Schoenfeld, B. (2017). *Nutrient Timing Revisited*. Professional Fitness Systems Convention. Nicosia, Cyprus
- Schoenfeld, B. (2017). HIIT vs Steady State: Which Cardio is Best? Professional Fitness Systems Convention. Nicosia, Cyprus
- Schoenfeld, B. (2017). Facts and Fallacies of Fat Loss. February Fitness Annual Conference. Leon, Spain.
- Schoenfeld, B. (2017). Manipulating Resistance Training Variables for Maximal Muscle Growth. February Fitness Annual Conference. Leon, Spain.
- Schoenfeld, B. (2017). Strategies for Maximizing Muscle Development: Putting Science into Practice. February Fitness Annual Conference. Leon, Spain.
- Schoenfeld, B. (2017). The Back Squat A Joint-by-Joint Assessment to Optimize Performance. 5th Annual NSCA International Conference. Chiba, Japan
- Schoenfeld, B. (2017). Combining Exercises for Maximal Growth. 5th Annual NSCA International Conference. Chiba, Japan
- Schoenfeld, B. (2016). *Manipulating Resistance Training Variables for Maximal Muscle Growth*. 9th International Symposium on Strength Training. Madrid, Spain
- Schoenfeld, B. (2016). *Evidence-Based Hypertrophy Training*. 1st International Sport Nutrition Conference. Bologna, Italy
- Schoenfeld, B. (2016). Strategies to Maximize Muscle Growth. V International Congress Open Academy of Medicine. Venice, Italy (virtual lecture)
- Schoenfeld, B. (2016). Strategies to Maximize Muscle Growth. Fitness Institute Congress Annual Conference. Copenhagen, Denmark
- Schoenfeld, B. (2016). *Myths and Facts About Hypertrophy Loading Zones*. Sports Science and Fitness Congress. Cologne, Germany
- Schoenfeld, B. (2016). Strategies to Maximize Muscle Growth. Sports Science and Fitness Congress. Cologne, Germany
- Schoenfeld, B. (2016). Facts and Fallacies of Fat Loss. Akademiet for Personlig Trening, Oslo, Norway

- Schoenfeld, B. (2016). *Optimal Program Design for Muscular Development*. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- **Schoenfeld, B.** (2016). *Facts and Fallacies of Fat Loss*. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- Schoenfeld, B. (2016). *Periodization Strategies for Maximizing Muscular Adaptations*. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- Schoenfeld, B., Aragon, A. (2016). *High vs. Low-Load Resistance Training Sets to Failure: Strength & Hypertrophy Outcomes.* National Strength and Conditioning Association National Conference. New Orleans, LA.
- Schoenfeld, B.J. (2016). Resistance Training for Maximal Hypertrophy: The Science and Art of Muscle Optimizing Development. Bropocalypse. Sydney, Australia
- Schoenfeld, B.J. (2016). Facts and Fallacies of Fat Loss. ISSN-Lehman College Sports Nutrition Workshop. Bronx, NY.
- **Schoenfeld, B.J.** (2015). *Nutrient Timing Revisited*. NSCA Mid-Atlantic Regional Conference. Philadelphia PA
- Schoenfeld, B., Arent, S. (2015). *Nutrient Timing: The State of the Art (Panel Discussion)*. American College of Sports Medicine's Annual New York Chapter Conference. New York, NY
- Schoenfeld, B., Saldanha-Aoki, M. (2015). The Science of Maximizing Muscle Hypertrophy through Resistance Training and Nutrition. ENAF, Pocos de Calda, Brazil
- Schoenfeld, B. (2015). Nutrient Timing Revisited: What to Eat and When For Maximal Muscle Growth. Planeta Barcelona International Conference on Fitness and Wellness, Barcelona, Spain
- Schoenfeld, B. (2015). Resistance Training for Maximal Hypertrophy: The Science and Art of Muscle Optimizing Development. Planeta Barcelona International Conference on Fitness and Wellness, Barcelona, Spain
- Schoenfeld, B. (2015). Manipulation of Resistance Training Program Variables: What Science Tells Us About Maximizing Muscle Growth. Akademiet for Personlig Trening, Oslo, Norway
- **Schoenfeld, B.** (2015). *The Science of Squatting*. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- Schoenfeld, B. (2015). Hypertrophy Loading Zones: Optimizing Repetition Ranges for Maximal Muscle Growth. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- **Schoenfeld, B.** (2015). *Nutrition for Exercise: What Works, What Doesn't.* CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- Schoenfeld, B. (2015). Hypertrophy Loading Zones: Optimizing Repetition Ranges for Maximal Muscle Growth. United Kingdom Strength and Conditioning Association Annual Conference, Kenilworth, England
- Schoenfeld, B. (2015). *Manipulating Resistance Training Variables for Maximizing Muscle Growth*. National Strength and Conditioning Association National Conference. Orlando, FL.
- Schoenfeld, B. (2015). Manipulating Resistance Training Variables for Maximizing Muscle Growth. International Society of Sports Nutrition Annual Conference. Austin, TX.
- Schoenfeld, B. (2015). Resistance Training: How Much Do You Need, How Best to Do It. BodyPower Birmingham, England

- Schoenfeld, B. (2014). Revisiting the Strength/Endurance Continuum: A New Paradigm for Hypertrophy Training American College of Sports Medicine's Annual New York Chapter Conference. New York, NY
- **Schoenfeld, B.** (2014). *Light Weights for Bigger Muscles*. National Strength and Conditioning Association Personal Trainer Conference. Washington, D.C.
- Schoenfeld, B., Aragon, A. (2014). *Nutrient Timing Revisited*. National Strength and Conditioning Association National Conference. Las Vegas, NV
- Schoenfeld, B. (2014). Revisiting the Strength/Endurance Continuum: A New Paradigm for Hypertrophy Training. NSCA IV International Conference on Human Performance Development through Strength and Conditioning. Keynote Address. Murcia, Spain
- Schoenfeld, B. (2014). MAX Muscle: A Periodized Approach to Hypertrophy Training. International Society of Sports Nutrition Annual Conference. Clearwater, Fl.
- Schoenfeld, B., Aragon, A. (2014). *Nutrient Timing Revisited*. BodyPower Birmingham, England
- Schoenfeld, B. (2013). Resistance Training for Fiber Type-Specific Adaptations. American College of Sports Medicine's Annual New York Chapter Conference. New York, NY
- Schoenfeld, B. (2013). *Is Functional Training Really Functional*. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- **Schoenfeld, B.** (2013). *The Science of Squatting*. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- **Schoenfeld, B.** (2013). *MAX Muscle: A Periodized Approach to Hypertrophy Training*. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- Schoenfeld, B. (2013). Program Design for Muscle Hypertrophy: The Art and Science of Muscle Development. CanFitPro International Fitness and Club Business Conference. Toronto, Canada
- Schoenfeld, B. (2013). *The Science of Squatting*. National Strength and Conditioning Association Personal Trainers Conference. Las Vegas, NV

PhD THESIS TITLE: Effects of different volume-equated resistance training loading strategies on muscular adaptations in well-trained men

PUBLICATIONS (prior to last 5 years)

- **Schoenfeld, B.J.** (2012). The use of anti-inflammatory drugs for exercise-induced muscle damage: Implications for skeletal muscle development. *Sports Medicine*, 42(12), 1017-1028
- Contreras, B., **Schoenfeld, B.,** Mike, J., Sonmez, G., Cronin, J. (2012). The biomechanics of the push-up: Implications for resistance training programs. *Strength and Conditioning Journal*, *34*(5), 41-46
- **Schoenfeld, B**. (2012). Point/Counterpoint: Are deep squats a safe and viable exercise? *Strength and Conditioning Journal*, 34(2), 34–36
- **Schoenfeld, B.** (2012). Does exercise-induced muscle damage play a role in skeletal muscle hypertrophy? *Journal of Strength and Conditioning Research*, 26(5):1441-53
- **Schoenfeld, B.**, Contreras, B. (2012). Do single joint exercises enhance functional fitness? *Strength and Conditioning Journal*, *34*(1), 63-65
- **Schoenfeld, B**. (2012). Resistance training for the postmenopausal woman. *NSCA Performance Training Journal*, 11(1), 6-9
- Harrison, J., **Schoenfeld, B.**, Schoenfeld, M. (2011). Application of kettlebells in program design. *Strength and Conditioning Journal*. 33(6), 86-89

- **Schoenfeld, B.**, Contreras B. (2011). Strategies for optimal core training program design. *NSCA Performance Training Journal*, 10(5), 20-24
- Contreras, B., Cronin, J., **Schoenfeld, B**. (2011). Exercise technique: Barbell hip thrust. *Strength and Conditioning Journal*, 33(5), 58-61
- **Schoenfeld, B.**, Kolber M.J., Haimes, J.E. (2011). The upright row: Implications for preventing subacromial impingement. *Strength and Conditioning Journal*, *33*(5), 25-28
- **Schoenfeld, B.** (2011). Resistance training during pregnancy: Safe and effective program design. *Strength and Conditioning Journal*, 33(5), 67-75
- **Schoenfeld, B.** (2011). The use of specialized training techniques to maximize muscle hypertrophy. *Strength and Conditioning Journal*, 33(4), 60-65.
- Contreras, B., **Schoenfeld, B**. (2011). To crunch or not to crunch: An evidence-based examination of spinal flexion exercises, their potential risks, and their applicability to program design. *Strength and Conditioning Journal*, 33(4), 8-18.
- **Schoenfeld, B.**, Sonmez, G.T. (2011). Overcoming psychosocial barriers to maternal exercise: Intervention strategies to improve participation and adherence. *Biomedical Human Kinetics*, *3*, 61 66
- Sonmez, G.T., **Schoenfeld, B.** (2011). Omega 3 fatty acids and exercise: A review of their combined effects on body composition and physical performance. *Biomedical Human Kinetics*, 3, 23 29
- **Schoenfeld, B**. (2011). Does cardio after an overnight fast maximize fat loss? *Strength and Conditioning Journal*, 33(1), 23-25
- Schoenfeld, B. (2010). Is functional training really functional? ACSM Certified News, 20(3), 5-6
- **Schoenfeld, B.J.** (2010). The mechanisms of muscle hypertrophy and their application to resistance training. *Journal of Strength and Conditioning Research*. 24(10), 2857–2872
- Sonmez, G.T., Colak, M., Sonmez, S., **Schoenfeld, B.** (2010). The effects of oral supplementation of mint extract on muscle pain and blood lactate levels. *Biomedical Human Kinetics*, 2, 66 69.
- **Schoenfeld, B**. (2010). Editorial: The state of personal training. *Strength and Conditioning Journal*, 32(3):20
- **Schoenfeld, B.J.** (2010). Squatting kinematics and kinetics and their application to exercise performance. *Journal of Strength and Conditioning Research*, 24(12), 3497-3506.
- Schoenfeld, B., Dawes, J. (2009). High-intensity interval training: Applications for general fitness training. Strength and Conditioning Journal, 31(6), 44-46
- Schoenfeld, B. (2004). Omega-3 fatty acids: A novel fat burner. Strength and Conditioning Journal, 26(3), 72–76
- **Schoenfeld, B**. (2002). Point/Counterpoint: Are multiple reps required for hypertrophy? *Strength and Conditioning Journal*, 24(4), 23–24
- Schoenfeld, B. (2002). Accentuating muscular development through active insufficiency and passive tension. Strength and Conditioning Journal, 24(4):20-22
- Schoenfeld, B. (2000). Repetitions and muscle hypertrophy. Strength and Conditioning Journal, 22(6) 67-68.

UNPUBLISHED WORK (supported by evidence)

a. Works accepted for publication

• **Schoenfeld, B.J.**, Grgic. J. (In Press). Can drop sets enhance muscle growth? *Strength and Conditioning Journal*,

- Ribeiro, A.S., Silva, D.R.P., Pereira, L.C., Teixeira, D.C., **Schoenfeld, B.S.**, Cyrino, E.S., Guedes, D.P. (In Press). Physical activity and sitting time are specifically associated with multiple chronic diseases and medicine intake in Brazilian older adults. *Journal of Aging and Physical Activity*,
- Lopes, R.C., Alex Harley Crisp, A.H., **Schoenfeld, B.J.**, de Faria Ramos, M., Germano, M.D., Verlengia, R., da Mota, G.R., Marchetti, P.H., Aoki, M.S. (In Press). Effect of rest interval length between sets on total load lifted and blood lactate response during total-body resistance exercise session. *Asian Journal of Sports Medicine*.
- Ide, B.N., Moreira, A., **Schoenfeld, B.J**., Lodo, L. Mesquita, H., Gomes, R.V., Lopes, C.R., Aoki, M.S. (In Press). Acute effects of different warm-up interventions on neuromuscular performance of recreational soccer players. *Revista Brasileira de Ciência e Movimento*

b. Works submitted for publication

- Nunes, J.P., Ribeiro, A.S., Schoenfeld, B.J., Cyrino, E.S. (In Review). Are the additional strength gains observed in periodized vs. non-periodized resistance training due to the principle of variation or the specificity of training? *Sports Medicine*,
- Grgic, J., **Schoenfeld, B.J**. (In Review). A case for considering age and gender when prescribing rest intervals in resistance training. *Muscle and Nerve*.
- Ribeiro, A.S., **Schoenfeld, B.J.**, Nascimento, M.A., Silva, A.M., Fleck, S.J., Sardinha, L.B., Cyrino, E.S. (In Review). Effects of low-volume resistance training with different frequencies on cellular health indicator in older women. *Journal of the American Aging Association*,
- **Schoenfeld, B.J.**, Grgoc. J. (In Review). Eccentric overload training: A viable strategy to enhance muscle hypertrophy? *Strength and Conditioning Journal*,
- Contreras, B., Vigotsky, A.D., **Schoenfeld, B.J.**, Beardsley, C., Cronin, J. (In Review). A review of gluteus maximus EMG activity during resisted hip extension exercise. *Strength and Conditioning Journal*
- Contreras, B, Vigotsky, AD, **Schoenfeld, BJ**, Beardsley, C, Cronin, J. (In Review). Reliability of the horizontal push test. *Sports Biomechanics*,
- Ribeiro, A.S., Tomerli, C.M., Souza, M.F., Pina, F.L.C., Nascimento, M.A., **Schoenfeld, B.J.**, Venturini, D., Barbosa, D.S., Cyrino, E.S. (In Review). Influence of trainability levels on inflammatory and metabolic profile responses induced by resistance training in elderly women. *Experimental Gerontology*
- Varvik, F.T., **Schoenfeld, B.J**. (In Review). Do type 1 muscle fibers have the same muscle growth potential as type 2 muscle fibers? *Muscle and Nerve*
- Tomeleri, C., Ribeiro, A., Cavaglieri, C., Deminice, R. **Schoenfeld, B.J.,** Santos, L., Souza, M., Antunes, M., Venturini, D., Barbosa, D., Sardinha, L., Cyrino, E. (In Review). Correlations between resistance training-induced changes on phase angle and changes on biochemical markers in older women: a randomized controlled trial. *Journal of Gerontology: Medical Sciences*
- Vigotsky, A.D., Bryanton, M.A., Nuckols, G., Beardsley, C., Contreras, B., Evans, J., Schoenfeld, B.J.
 (In Review). Biomechanical, anthropometric, and psychological determinants of squat strength. *Journal of Applied Biomechanics*,
- Ribeiro, A.S., Silva, D.R.P., Pereira, L.C., Teixeira, D.C., **Schoenfeld, B.S.**, Cyrino, E.S., Guedes, D.P. (In Review). Physical activity and sitting time are specifically associated with chronic diseases and medicine intake in Brazilian older adults. *Journal of Physical Activity and Health*,

- Ribeiro, A.S., Avelar, A., Nunes, J.P., **Schoenfeld, B.J.**, Tomeleri, C.M., Garcêz, H., Júnior, P.S., Fernandez, R.R., Silva, A.M., Cyrino, E.S. (In Review). Effect of creatine supplementation associated with resistance training on body composition segments in young adult resistance-trained men. *Nutrition and Health*.
- Fink, J., **Schoenfeld, B.J**. (In Review). Elucidation of the resistance training induced hormone theory myth. *International Journal of Sports Medicine*.
- Fink, J., **Schoenfeld, B.J.**, Sakamaki, M., Nakazato, K. (In Review). Physiological responses to agonist-antagonist superset resistance training. *International Journal of Sports Medicine*
- Dos Santos, L., Ribeiro, A.S., **Schoenfeld, B.J.**, Cyrino, E.S. (In Review). Effects of pyramid systems performed with wide or narrow repetition zone on muscular strength and hypertrophy in older women. *Journal of Strength and Conditioning Research*,
- Marcolin, G., Saoncella, M., Grigoletto, D., Pacelli, F.Q., Zamparo, P., Schoenfeld, B.J., Paoli, A. (In Review). Mind-muscle connection: Effects of verbal instructions in EMG during the bench press in resistance trained males. *International Journal of Sports Medicine*.
- Tomeleri, C.M., Ribeiro, A.S., **Schoenfeld, B.J**., Souza, M.F., Schiavoni, D., Antunes, M., Cunha, P.M., Venturine, D., Barbosa, D.S., Cyrino, E.S. (In Review). Order of exercises on muscular strength, hypertrophy and anabolic hormones in older women. *Journal of Sports Medicine and Physical Fitness*
- Schoenfeld, B.J., Vigotsky, A., Contreras, B., Winkleman, N., Larson, R., Alto, A., Golden, S., Paoli, A. (In Review). Attentional focus strategies during resistance training elicit differential effects on muscular adaptations. *International Journal of Sports Medicine*
- Bocalini, D.S., **Schoenfeld, B.J.** (In Review). Multivariate analysis to evaluate the resistance to fatigue in active and inactive individuals. *Frontiers in Physiology*,
- Grgic, J., **Schoenfeld, B.J.** (In Review). Are hypertrophic adaptations to high and low load resistance training muscle fiber type specific? A systematic review. *Journal of Science and Medicine in Sport*,
- Teixeira, C.V., Pereira, E.F.M., Evangelista, A.L., Lopes, C.R., Guedes Júnior, D.P., **Schoenfeld, B.J.**, Bocalini, D.S. (In Review). Is the weekly sets volume training performed by trained subjects in accordance with training recommendations guidelines for muscle hypertrophy? *Journal of Strength and Conditioning Research*,
- Ribeiro, A.S., Aguiar, A.F., **Schoenfeld, B.J.**, Nunes, J.P., Cavalcanti, E.F., Cadore, E.L., Cyrino, E.S. (In Review). Effects of different resistance training systems on muscular strength and hypertrophy in resistance-trained older women. *Journal of Sports Science*,
- Junior, P.S., Ribeiro, A.S., Nabuco, H.C.G., Fernandes, R.R., Tomeleri, C.M., Venturini, D., Barbonsa, D.S., **Schoenfeld, B.J.**, Cyrino, E.S. (In Review). Effects of whey protein supplementation associated with resistance training on muscular strength, hypertrophy and muscle quality in pre-conditioned older women. *International Journal of Sports Nutrition and Exercise Metabolism*.
- Grgic, J., Schoenfeld, B.J., Davis, T., Lazinica, B., Krieger, J.W. (In Review). A systematic review and
 meta-analysis of the effect of resistance training frequency on gains in muscular strength. Sports
 Medicine.
- **Schoenfeld, B.J.**, Grgic, J. (In Review). Evidence-based guidelines for resistance training volume to maximize muscle hypertrophy. *Strength and Conditioning Journal*,
- **Schoenfeld, B.J.**, Aragon, A.A. (In Review). How much protein can the body use in a single meal for muscle-building? *Journal of the International Society of Sports Nutrition*.
- Vigotsky, A.D., Schoenfeld, B.J., Than, C., Brown, J.M. (In Review). Methods Matter: The relationship between strength and hypertrophy depends on methods of measurement and analysis. *Journal of Sports Science*.

- **Schoenfeld, B.J.**, Grgic. J. (In Review). Can drop sets enhance muscle growth? *Strength and Conditioning Journal*,
- Brigatto, Lopes, C. **Schoenfeld, B.J**. (In Progress). Effect of resistance training frequency on neuromuscular performance and muscle morphology after eight weeks in well-trained men. *Journal of Strength and Conditioning Research*
- Lasevicius, T., **Schoenfeld, B.J**., Grgic, J., (In Review). Resistance training performed 2 versus 3 days per week elicits similar increases in muscular strength and hypertrophy in resistance-trained men. *Journal of Strength and Conditioning Research*.

c. Works in progress

- Tinsley, G., **Schoenfeld, B.J**. (In Progress). Body composition changes in an elite figure competitor across multiple competitions: A case study.
- Escalante, G., **Schoenfeld, B.J**. (In Progress). Precompetition training practices and body composition changes in elite bodybuilders.
- Orlic, I., **Schoenfeld, B.J**. (In Progress). Effects of very high vs moderately high frequency resistance training on muscular adaptations.
- Feriche, B., **Schoenfeld, B.J**. (In Progress). Effects of acute hypoxia on muscular adaptations.
- Sumrall, S., **Schoenfeld, B.J.**, Berger, C. (In Progress). Resistance training rest between sets: influence on respiratory exchange ratio
- Bocalini, D.S., Baker, J., **Schoenfeld, B.J.** (In Progress). Influence of weekly frequency in resistance exercise on muscle adaptations in healthy individuals.
- Ribeiro, A.S., Avelar, A., Nunes, J.P., **Schoenfeld, B.J.**, Tomeleri, C.M., Garcêz, H., Júnior, P.S., Fernandez, R.R., Silva, A.M., Cyrino, E.S. (In Progress). Creatine supplementation does not change the ratio between intracellular water and skeletal muscle mass in resistance-trained men: a randomized, double-blinded, and placebo-controlled trial
- Schoenfeld, B.J., Arciero, P. (In Progress). Strength and body composition changes in a structured resistance training program consuming protein either pre- or post-workout.
- Feriche, B., Schoenfeld, B.J. (In Progress). Muscle power trainability in conditions of hypoxia.
- Ogborn, D., Schoenfeld, B.J. (In Progress). Evidence based personal Training: A narrative review
- Pereira, P.E., Azevedo, P., Schoenfeld, B.J. (In Progress). Effects of different eccentric action tempos on muscular adaptations
- Johnson, K., Vandusseldorp, T., **Schoenfeld, B.J**. (In Progress). Inclusion of no-load isometric contractions to traditional resistance training
- Maden-Wilkinson, T., Thompson, S., Hembrough, D., Balshaw, T., Franchi, M., **Schoenfeld, B.** (In Progress). The effects of loading intensity and training to failure on muscle architecture and functional adaptations.
- Maloney, S., **Schoenfeld, B.J**. (In Progress). Effects of adding loaded intraset stretch to traditional resistance training.
- **Schoenfeld, B.J.** (In Progress). Resistance training loading zones to maximize hypertrophy: A reexamination of the repetition continuum.
- **Schoenfeld, B.J.**, Contreras, B., Alto, A., Belliard, R. (In Progress). Efficacy of a virtual reality training system on muscular adaptations and cardiorespiratory fitness.
- **Schoenfeld, B.J,** Miller, M.G. (In Progress). Comparison of post-exercise energy expenditure in a combined bout of resistance training and aerobic interval training versus each bout alone.

- **Schoenfeld, B.J,** Miller, M.G. (In Progress). Effects of circuit resistance training versus high-intensity interval training on muscular outcomes.
- **Schoenfeld, B.J,** Digman, M., O'Boyle, R., Miller, M.G. (In Progress). Functional outcomes in free weight versus machine exercise in resistance trained men.
- Contreras, B., Vigotsky, A.D., **Schoenfeld, B.J.**, Beardsley, C, Cronin, J. (In Progress). A comparison of power, impulse, and peak force in the back squat and barbell hip thrust exercises.
- **Schoenfeld, B.J.**, Krieger, J., Wilborn, C., Urbina, S.L., Hayward, S.B., Fedewa, M.V., Esco, M. (In Progress). Comparison of multi-frequency bioelectrical impedance versus dual energy x-ray absorptiometry for assessing body composition changes following participation in a 10-week resistance training program. *Clinical Physiology and Functional Imagining*,
- Smolarek Ade, C., de Salles, B.F., de Souza Junior, T.P., **Schoenfeld, B.J.**, (In Progress). Strength decline in sedentary males and females of different ages
- Negaresh, R., **Schoenfeld, B.J.**, (In Progress). Is caffeine consumption beneficial to winning a wrestling tournament? A preliminary study

GRANTS RECEIVED

a. Multiple

- Maden-Wilkinson, T., Thompson, S., Hembrough, D., Balshaw, T., Franchi, M., **Schoenfeld, B.** (2017). United Kingdom Strength and Conditioning Association. *The effects of loading intensity and training to failure on muscle architecture and functional adaptations*. \$2,600. Status: In Review
- Sonmez, G.T., **Schoenfeld, B.** (2016). State of New York, Graduate Research Technology Initiative Grant. \$37,599. Status: Funded.
- Sonmez, G.T., **Schoenfeld, B.** (2016). Lehman College Student Tech Fee Fund Grant, \$30,254. Status: Funded.
- Sonmez, G.T., **Schoenfeld, B.** (2015). Lehman College Student Tech Fee Fund Grant, \$30,672. Status: Funded.
- **Schoenfeld, B.,** Sonmez, G.T. (2014). State of New York, Graduate Research Technology Initiative Grant. \$45,900. Status: Funded.

b. Individual

- **Schoenfeld, B.** (2017). Renaissance Research Fund. *Effects of hypoxia on muscular adaptations*. \$3000. Status: Funded
- **Schoenfeld, B.** (2017). Efficacy of a virtual reality training system on muscular adaptations and cardiorespiratory fitness. \$36,815.10. Status: Funded
- **Schoenfeld, B.** (2017). PSC-CUNY Round 48. Effects of graded increases in resistance training volume on muscular adaptations in trained men. \$10,495. Status: Funded
- Schoenfeld, B. (2016). Dymatize Sport Nutrition Excellence in Scholarship Grant. *Effects of attentional focus during resistance training on longitudinal muscular adaptations*. \$6,000. Status: Funded
- **Schoenfeld, B.** (2015). PSC-CUNY Round 46. *The effects of heavy- vs. moderate-load resistance training on muscular adaptations in well-trained men.* \$6,000. Status: Funded.
- Schoenfeld, B. (2015). Dymatize Sport Nutrition Excellence in Scholarship Grant. *Effects of mixed versus constant repetition ranges on muscle strength and hypertrophy.* \$4,800. Status: Funded

- Schoenfeld, B. (2014). Dymatize Sport Nutrition Excellence in Scholarship Grant. *Muscular adaptations following low- versus high-load resistance training in well-trained men.* \$7,000. Status: Funded
- **Schoenfeld, B.** (2014). PSC-CUNY Round 45. *Muscular adaptations in a volume-equated split versus total body resistance training routine in well-trained men.* \$5,000. Status: Funded.
- Schoenfeld, B. (2013). Dymatize Sport Nutrition Excellence in Scholarship Grant. *The effect of nutrient timing on muscle strength and hypertrophy: A systematic review and meta-analysis.* \$2,000. Status: Funded
- **Schoenfeld, B.** (2013). Dymatize Sport Nutrition Excellence in Scholarship Grant. *Does hypertrophytype resistance training promote greater muscle growth than strength-type training?* \$9,800. Status: Funded

c. Works in progress

• Schoenfeld, B. (2017). National Institute of Health-National Institute of Aging, R15. Development of a Low-load Exercise to Target Sarcopenia Lifting (LETS-Lift) Program to Enhance Functional Capacity in Frail Elderly Women. \$300,000. Status: In Review

d. Not Funded

- **Schoenfeld, B.** (2015). PSC-CUNY Round 47. *Dose-response relationship between resistance training volume and muscular adaptations in trained men.* \$10,495. Status: Not Funded
- Schoenfeld, B. (2015). CUNY Junior Faculty Research Awards in Science and Engineering. *Effects of low-load resistance training on functional and cognitive outcomes in elderly women.* \$50,000. Status: Not Funded.
- Schoenfeld, B. (2013). National Strength and Conditioning Association Doctoral Grant. *Does hypertrophy-type resistance training promote greater muscle growth than strength-type training?* \$10,000. Status: Not funded
- Schoenfeld, B. (2012). National Strength and Conditioning Association Doctoral Grant. *Does hypertrophy-type resistance training promote greater muscle growth than strength-type training?* \$10,000. Status: Not funded

SERVICE TO THE DEPARTMENT

- Search Committee member for REC Assistant/Associate Professor Position, Lehman College (2018)
- Search Committee chair for Exercise Science Assistant Professor/Associate Professor/Lecturer Position, Lehman College (2016-2017)
- Search Committee chair for HSA Assistant/Associate Professor Position, Lehman College (2016)
- Search Committee member for REC Assistant/Associate Professor Position, Lehman College (2016)
- Department Representative for Accepted Student Reception (2016)
- Search Committee chair for HSA Assistant/Associate Professor Position, Lehman College (2015-2016)
- Search Committee member for DFN Assistant/Associate Professor Position, Lehman College (2015)
- Curriculum Committee chair, Lehman College (2017)
- Curriculum Committee member, Lehman College (2014 2016)

- Search Committee member for DFN Internship Coordinator Position, Lehman College (2014)
- Ad Hoc Committee member for Establishing a Physical Education Program, Lehman College (2014)
- Assessment Coordinator, Lehman College (2013 Present)

SERVICE TO THE COLLEGE

- Developed the Graduate Program in Human Performance and Fitness for the Exercise Science Program (2017)
- Invited presentation/discussion at the Leonard Lief Library (December, 2017)
- Chair for Lehman Athletics Compliance Committee, Lehman College (2016-present)
- Project Senior Muscle: An Initiative by the Lehman College School of Health Sciences, Human Services, and Nursing for Health Promotion and Wellness in the Bronx, NY (2016)
- NCAA Faculty Athletic Representative (2016-present)
 - o Responsible for ensuring that all Lehman athletic programs are in compliance with NCAA rules
 - O Act as a liaison between student athletes and faculty to resolve any issues related to academic aspects of athletic participation
- Search Committee member for Associate Dean Position, Lehman College (2015)
- Featured in 'Lehman Today'
 - o "Herald Tribune: Post-Workout Eating Myths" http://wp.lehman.edu/lehman-today/herald-tribune-post-workout-eating-myths/
 - o "US News & World Reports: Six Workout Trends—And What They Mean to Your Wallet" http://wp.lehman.edu/lehman-today/us-news-world-reports-six-workout-trends-and-what-they-mean-to-your-wallet/
 - o "The Benefits of Strength Training While You're Pregnant" http://wp.lehman.edu/lehman-today/the-benefits-of-strength-training-while-youre-pregnant/
 - "Huffington Post: Professor Brad Schoenfeld on the Three Building Blocks of Fitness" http://wp.lehman.edu/lehman-today/huffington-post-professor-brad-schoenfeld-on-the-three-building-blocks-of-fitness/

SERVICE TO THE UNIVERSITY

- Faculty Member, Institute for Health Equity, City University of New York (2017-present)
 - Serve on Research subcommittee to determine how to best integrate research into the mission of the Institute
 - o Help to set policies and procedures for the Institute

COMMUNITY SERVICE

- a. Professional Service
- National Strength and Conditioning Association: Member and Fellow (2000 Present)
 - o Ad Hoc Committee for NSCA Expansion into Brazil: Chair (2016)
 - o Finance Committee: Chair (2013-2014)
 - o Blue Ribbon Panel to Examine Offering Specialty Credentialing: Chair (2014)
 - o Committee to review the Policies and Procedures Manual: Member (2014)
 - o Secretary/Treasurer (2013 2014)

- o Board of Directors: Member (2012 Present)
- o Conference Committee: Liaison (2012 Present)
- o Special Populations Exam Development Committee: Member (2010 2014)
- o Ad Hoc Committee for Feasibility of a Personal Training Journal: Chair (2012)
- o Blue Ribbon Panel to Examine Advancement of Personal Training Certification: Co-Chair (2012)
- o Personal Trainer Special Interest Group: Member (2011 2012)
- o Ad Hoc Committee for Feasibility of a Special Populations Journal: Member (2011 2012)
- o Conference Committee: Member (2008 2012)
- Frontiers in Physiology: Review Editor (2017 Present)
- Journal of Strength and Conditioning Research: Senior Associate Editor (2017 Present)
- Strength and Conditioning Journal: Evidence-Based Training Column Editor (2015 Present)
- Journal of the International Society of Sports Nutrition: Associate Editor (2015 Present)
- Strength and Conditioning Journal: Associate Editor-in-Chief (2013 Present)

b. Board Service

- Editorial Advisory Board Member: Frontiers in Physiology (2017 Present)
- Scientific Advisory Board Member: Dymatize Europe (2016 Present)
- Advisory Board Member/National Strength and Conditioning Association Spain Affiliate (2015 Present)
- Community Advisory Board Member, North Central Bronx/Jacobi Hospital (2015-2017)
- Editorial Advisory Board Member: Journal of Strength and Conditioning Research (2014 Present)
- Scientific Advisory Board Member: Dymatize Nutrition Corporation (2013 Present)
- Editorial Advisory Board Member: Journal of the International Society of Sports Nutrition (2013 Present)
- Board of Directors Member/National Strength and Conditioning Association (2012 Present)
- Board of Directors Member/American Academy of Personal Training (2009 2010)

MEDIA

a. Internet

- **Self.com (December 2017).** "Following a Specific Fitness Program Is the Key to Hitting Your Goals." https://www.self.com/story/following-a-specific-fitness-program-is-key-to-losing-weight
- Bodybuilding.com (December 2017). "7 Ways to Make Your Workouts More Hardcore." https://www.bodybuilding.com/content/7-ways-to-make-your-workouts-more-hardcore.html
- WeightWatchers.com (December 2017). "How Much Exercise Do You Really Need?" https://www.weightwatchers.com/us/article/how-much-exercise-do-you-really-need
- **Vitamin Shoppe (December 2017).** "Are You Neglecting These Two Glute Muscles?" https://whatsgood.vitaminshoppe.com/2017/12/06/overlooked-glute-muscles/
- **NBCnews.com.** (**December 2017**). "What Happens to Your Body When You Skip the Gym?" https://www.nbcnews.com/better/health/what-happens-your-body-when-you-skip-gym-ncna830886
- AskMen.com (November 2017). "Get Bigger Biceps with a Body Weight Workout." https://www.askmen.com/sports/bodybuilding/get-bigger-biceps-with-a-bodyweight-workout.html
- LiveScience.com (November 2017). "Can You Turn Fat into Muscle?" https://www.livescience.com/60904-can-you-turn-fat-into-muscle.html
- AskMen.com (October 2017). "How to Gain Muscle for Skinny Guys." https://www.askmen.com/top 10/fitness/how-to-gain-muscle-for-skinny-guys 2.html

- The Conversation.com (September 2017). "BCAA Supplements are Just Hype Here's a Better Way to Build Muscles." https://theconversation.com/bcaa-supplements-are-just-hype-heres-a-better-way-to-build-muscles-84411
- Bodybuilding.com (August, 2017). "Metabolic Resistance Training" https://www.bodybuilding.com/fun/metabolic-resistance-training-build-muscle-torch-fat.html
- Huffington Post (July 2017). "Pre And Post Workout Nutrition: What Is It And Do You Need?"
 http://www.huffingtonpost.co.uk/entry/pre-and-post-workout-nutrition-what-is-it-and-do-you-need_uk_5a155cb9e4b0815d3ce65b66
- Daily Burn. (May 2017). "What Happens to Your Body When You Skip the Gym?" http://dailyburn.com/life/fitness/skip-the-gym-out-of-shape/
- Ask Men. (April 2017). Do You Need to Deload Your Weight Training? http://uk.askmen.com/sports/bodybuilding/do-you-need-to-deload-your-weight-training.html
- Bodybuilding.com. (March 2017). "Four Things You Never Learned About Muscle Growth" https://www.bodybuilding.com/content/4-things-you-never-learned-about-muscle-growth.html
- Vitamin Shoppe. (March 2017). Let's Set The Record Straight About Fasted Cardio https://whatsgood.vitaminshoppe.com/2017/03/15/fasted-cardio/
- T-Nation. (March 2017). Tip: Rest This Long Between Sets https://www.t-nation.com/training/tip-rest-this-long-between-sets
- MyFitnessPal.com Is HIIT the Only Workout You Need? http://blog.myfitnesspal.com/hiit-workout-need/
- Bodybuilding.com (January 2017). The Myth Of Cardio Before Breakfast Debunked! https://www.bodybuilding.com/content/the-myth-of-cardio-before-breakfast-debunked.html
- AskMen.com. (November 2016). http://www.askmen.com/sports/bodybuilding/should-you-lift-weights-to-failure.html
- Huffington Post. (March 2016). http://www.huffingtonpost.com/melissa-edmonds/is-it-important-to-consume-protein-right-after-working-out b 9418912.html
- Health.com. (January 2016). http://www.health.com/health/gallery/0,,20975639_22,00.html
- Bodybuilding.com. (January 2016). "The Myth of Cardio Before Breakfast Debunked" https://www.bodybuilding.com/content/the-myth-of-cardio-before-breakfast-debunked.html
- Huffington Post. (June 3, 2015). "Do Workouts Need to Make You Sore to Work?" http://www.huffingtonpost.com/jill-s-brown/workout-sore_b_7439796.html
- Huffington Post. (March 10, 2014). "The 3 Building Blocks of Fitness" http://www.huffingtonpost.com/self/health-and-fitness_b_4921624.html

b. Magazine

- Men's Health (December 2017). "5 Workout Mistakes That Are Sabotaging Your Muscle Gains" https://www.menshealth.com/fitness/workout-mistakes-for-muscle-growth
- Men's Health (November 2017). "6 Reasons You're Gaining Back All the Weight You Lost." https://www.menshealth.com/weight-loss/how-to-maintain-weight-loss
- Men's Health. (October, 2017). "Everything You Need to Know About the IIFYM Eating Plan" https://www.menshealth.com/nutrition/how-to-count-macronutrients-iifym-eating-plan
- Fitness Rx for Women. (September 2017). Fasted Cardio and Changes in Body Composition: What the Research Says http://www.fitnessrxwomen.com/weight-loss/cardio/fasted-cardio-and-changes-in-body-composition/

- Muscular Development Magazine. (August 2017). The Best Rep Range for Muscle Growth http://musculardevelopment.com/training/15972-the-best-rep-range-for-muscle-growth.html#. WcGfGrKGOUl
- Experience Life. (July 2017). https://experiencelife.com/article/the-case-for-strength/
- Time Magazine (June 2016) Why Weight Training is Ridiculously Good for You http://time.com/4803697/bodybuilding-strength-training/
- Paste Magazine. (June 2017). Achieve More in the Gym by Varying the Rep Range https://www.pastemagazine.com/articles/2017/06/bodies-in-balance-varying-the-rep-range.html
- Nutrition Action. (May 2017). Running on Empty http://www.nutritionaction.com/daily/exercise-for-health/running-on-empty/
- Men's Health. (April 2017). The Brutally Honest Story Of What Happened After This Man's Transformation http://www.menshealth.com/fitness/maintaining-single-digit-body-fat
- Fitness Rx for Women. (April 2017). 10 Minute Glute Blasting Circuits http://www.fitnessrxwomen.com/weight-loss/circuit-training/10-minute-glute-blasting-circuits/
- Men's Health. (March 2017). The Best Weight Lifting Advice for Men Over 40. http://www.menshealth.co.uk/healthy/the-best-weight-lifting-advice-for-men-over-40
- Women's Health Magazine. (March 2017). What Happens To Your Weight Loss When You Do The Same Workout Every Day http://www.womenshealthmag.com/weight-loss/workouts-to-lose-weight
- Fitness Rx for Women. (March 2017). Can You Target the Lower Abs http://www.fitnessrxwomen.com/training/workout-tips-advice/six-pack-training/
- Men's Fitness. (January 2017). "45 Minute Transformation Workout"
 http://www.mensfitness.com/training/workout-routines/45-minute-transformation-workout-get-back-shape-fast
- Muscular Development Magazine. (January 2017). "Optimum Rep Speed for Maximum Gains" http://www.musculardevelopment.com/training/14747-optimum-rep-speed-for-maximum-gains.html#.Vjpz4iv6tdx
- Muscular Development Magazine. (December 2016). "Partial versus Full Range of Motion Reps" http://musculardevelopment.com/training/15566-partial-vs-full-range-of-motion-reps-which-is-best.html#. WAoefMmuk8A
- Fitness Rx. (December 2016). "Split versus Full Body Routines" http://www.fitnessrxwomen.com/training/workout-tips-advice/split-vs-full-body-routines/
- US News and World Report. (December 2016). "Can You Gain Muscle While Losing Weight?" http://health.usnews.com/wellness/fitness/articles/2016-12-02/can-you-gain-muscle-while-losing-weight
- Bottom Line. (December 2016). "A Better Way to Weight Train" http://bottomlineinc.com/better-way-weight-train-try-light-weights/
- Women's Health. (November 2016). "Working Out While Pregnant" http://www.womenshealthmag.com/fitness/working-out-while-pregnant
- Fitness Magazine. (October 2016). "Your Snoozefest Strength-Training Routine Is Boring Your Muscles Too" http://www.fitnessmagazine.com/workout/lose-weight/build-strength/strength-training-tips-stronger-muscles/
- US News and World Report. (October 2016). "The 10 Most Underrated Exercises" http://health.usnews.com/wellness/slideshows/the-10-most-underrated-exercises-according-to-top-trainers
- Shape. (October 2016). "Shoulder Pain" http://www.shape.com/blogs/working-it-out/shoulder-pain-sign-good-workout-or-actual-injury

- Men's Health. (October 2016). "Trade Secrets to Make This Week Your Biggest Ever"
 http://www.menshealth.co.uk/building-muscle/pt-trade-secrets-to-make-this-week-your-biggest-ever
- Men's Health. (October 2016). "The Simplest Way to Build More Muscle" http://www.menshealth.co.uk/building-muscle/get-big/the-simplest-way-to-build-more-muscle
- Oxygen. (October 2016). "Gain Without Pain" http://www.oxygenmag.com/article/gain-pain-12174
- Fitness Rx. (September 2016). "Fasted Cardio and Changes in Body Composition" http://www.fitnessrxwomen.com/fat-loss/cardio/fasted-cardio-and-changes-in-body-composition/
- Muscle and Fitness. (August 2016). "Reeve's Deadlift" http://www.muscleandfitness.com/workouts/back-exercises/back-basics-reeves-deadlift
- Outside Magazine. (August 2016). "Fasting Could Make You Faster" http://www.outsideonline.com/2109091/fasting-could-make-you-faster
- Cosmopolitan. (June 2016). "Fat Burning Hack" http://www.cosmopolitan.com/health-fitness/a59450/fat-burning-hack/
- Men's Health. (May 2016). "How Often Should You Lift" http://www.menshealth.com/fitness/how-often-should-you-lift
- Muscle and Fitness. (May 2016). "Sculpt Stronger Leaner Legs"
 http://www.muscleandfitness.com/muscle-fitness-hers/hers-workouts/sculpt-stronger-leaner-legs-supersets
- Oxygen. (May 2016). "Fine Tune Your Workout" http://www.oxygenmag.com/article/finetune-workout-11991
- Men's Health. (April 2016). "Best Lower Abs Exercises" http://www.menshealth.com/fitness/best-lower-abs-exercise
- US News and World Report. (March 2016). "Should You Even Bother with Cardio?" http://health.usnews.com/wellness/articles/2016-03-25/should-you-even-bother-with-cardio
- Men's Health. (February 2016)."New Bodybuilding Rules" http://www.menshealth.com/fitness/new-bodybuilding-rules
- Self. (December 2015). "Ultra-Effective Butt Exercises" http://www.self.com/fitness/2015/12/ultra-effective-butt-exercises-arent-squats/
- Men's Health Magazine. (November 2015). "The Best Fat Shedding Meal Plan" http://www.menshealth.ph/nutrition-weight-loss/diet-strategies/the-best-fat-shedding-meal-plan
- Men's Fitness. (November 2015). "Get Swole" http://www.mensfitness.com/training/build-muscle/get-swole-whats-deal-pump
- Bride's Magazine. (November 2015). "Which Workout is Better for Weight Loss"
 http://www.brides.com/blogs/aisle-say/2015/11/which-is-better-for-weight-loss-cardio-strength-training.html
- Self Magazine. (September 2015). "Best Workout for Fat Loss" http://www.self.com/fitness/fitness-news/2015/09/best-workout-fat-loss/
- Muscle and Fitness Hers. (September 2015). "Hers Workout Ultimate Mix" http://www.muscleandfitness.com/muscle-fitness-hers/hers-workouts/ultimate-mix
- Men's Journal. (August 2015). "How to Box Jump Like JJ Watt" http://www.mensjournal.com/health-fitness/exercise/how-to-box-jump-like-j-j-watt-20150417
- Shape Magazine. (August 2015). "Plateau-Busting Strategies" http://www.shape.com/fitness/workouts/plateau-busting-strategies-start-seeing-results-gym

- Men's Health Magazine. (March 2015). "Time Tested Bodybuilding Techniques" http://www.menshealth.com/fitness/time-tested-bodybuilding-techniques?page=7
- Men's Health Magazine. (February 2015). "Why Heavy Weights Aren't the Only Way to Build Size and Strength" http://www.menshealth.com/fitness/why-heavy-weights-arent-only-way-build-size-and-strength
- Details Magazine. (January 2015): "Muscle versus Cardio" http://www.details.com/story/muscle-vs-cardio
- Men's Health Magazine. (January 2015). "Brand New Study Puts Dieting Confusion to Rest" http://www.menshealth.com/nutrition/brand-new-study-puts-dieting-confusion-rest
- Women's Health Magazine. (December 12, 2014): "Partial Squat Variation" http://www.womenshealthmag.com/fitness/partial-squat-variation
- Outside Magazine. (May 2014). "The New Rules of Protein" http://www.outsideonline.com/1923911/new-rules-protein

c. Newspaper

- The Independent (October 2017). "BCAA supplements are just hype." http://www.independent.co.uk/life-style/health-and-families/bcaa-supplements-are-just-hype-heres-a-better-way-to-build-muscles-a7969961.html
- Global News. (July 2017). "How to Lose Belly Fat." http://globalnews.ca/news/3612810/how-to-lose-belly-fat/
- Global News. (June 2017). "8 reasons why weight training is incredible for your health." http://globalnews.ca/news/3513498/8-reasons-why-weight-training-is-incredible-for-your-health/
- Washington Post. (May 9, 2014): "How to Refuel After a Workout"
 https://www.washingtonpost.com/national/health-science/how-to-refuel-after-a-workout-without-undermining-your-hard-work/2014/05/19/7c16871c-da0f-11e3-b745-87d39690c5c0_story.html
- Financial Post. (November, 2011). "**Little bending required for these ab exercises.**" http://www.financialpost.com/m/little+bending+required+these+exercises/5719017/story.html
- New York Times. (September 29, 2011): "A Safer Shoulder Workout" http://well.blogs.nytimes.com/2011/09/29/a-safer-shoulder-workout/?
- New York Times. (August 17, 2011): "Are Crunches Worth the Effort?" http://well.blogs.nytimes.com/2011/08/17/are-crunches-worth-the-effort/

d. Television

• WSMV - Channel 4, Nashville, TN. (January 2017). "Workout Tips for the New Year" http://www.wsmv.com/clip/13011599/nsca-workout-tips-1617

MEMBERSHIP IN PROFESSIONAL SOCIETIES (last 5 years only)

- National Strength and Conditioning Association
- United Kingdom Strength and Conditioning Association

Gul Tiryaki-Sonmez

TITLE: PROFESSOR DEPARTMENT: HEALTH SCIENCES

EFFECTIVE DATE: September 2007 **SALARY RATE:**

HIGHER EDUCATION

A. <u>DEGREES</u>

Institution	Dates Attended	Degree & Major	Date Conferred
University of New Mexico	9/1986 – 5/1990	Ph.D. Exercise Sciences	05/1990
Oklahoma State University	1/1984 – 5/1986	M.S. Exercise Sciences	05/1986
Youth & Sport Academy, Ankara, Turkey	9/1977 – 5/1981	B.S. Training Science	05/1981

B. Additional Higher Education and/or Education in Progress

EXPERIENCE

A. Teaching

Institution	Dates	Rank	Department
Lehman College	9/2016– present	Professor	Health Sciences
Lehman College	9/2007 – 9/2016	Associate Professor	Health Sciences
Edward Waters College	9/2006 -5/2007	Professor	Physical Education and Sports
Abant Izzet Baysal University	2/1999 – 9/2006	Professor	Physical Education and Sports

Sakarya University	1/1997 – 2/1999	Associate Professor	Physical Education and Sports
Dicle University	4/1996 – 1/1997	Associate Professor	Physical Education and Sports
Middle East Technical University	9/1993 – 4/1996	Associate Professor	Physical Education and Sports
Middle East Technical University	9/1990 – 4/1993	Assistant Professor	Physical Education and Sports

B. Other

Institution	Dates	Rank	Department
Lehman College	9/2007-Present	Director of Exercise Science Program	Health Sciences
Lehman College	7/2014 – 7/2017	Chair	Health Sciences
Lehman College	9/2007-2009	Founder of Exercise Science Program	Health Sciences
Edward Waters College	9/2006 –5/2007	Director of Program of Physical Education and Sports	Physical Education and Sports
Abant Izzet Baysal University	2/2004 – 9/2006	Vice President	Academic Affairs
Abant Izzet Baysal University	02/1999-9/2006	Chair & Graduate Studies Coordinator of Department of Exercise Science	Physical Education and Sports
Sakarya University	1/1997 – 2/1999	Director & Graduate Studies Coordinator of the School of Sports and Physical Education	Physical Education and Sports
Fenerbahce Sports Club, Istanbul, Turkey	1/1997 – 2/1999	Coordinator of Computerized Match Analyses & Assistant Director of Foreign Relations	Performance analysis

		Director &	
Dicle University	4/1996 – 1/1997	Graduate Studies Coordinator of	Physical Education and
		the School of Sports and	Sports
		Physical Education	

ACADEMIC AND PROFESSIONAL HONORS

Candidate for "Science Woman of Year", nominated by the "Women's Journal", Turkey, 1996
Scholarship to pursue doctorate in Exercise Physiology in USA, Turkish Ministry of National Education, 1982
Having graduated as the premier student from the Youth and Sports Academy, Ankara, Turkey, 1981
National Folk dancer, National Folk Dance Team, Turkey, 1974-1981
National Athlete, National Track & Field Team, Turkey, 1979-1981

PUBLICATIONS (last five years only)

Peer-reviewed articles:

Demirel, N., Tiryaki-Sonmez, G., Eroglu, H., Vatansever, S. The Effects of Gymnastics and Whole Body Vibration Exercises on Body Composition. Journal of Physical Education and Sports Management Vol. 4, No. 1, pp. 25-33, June 2017, ISSN 2373-2156 (Print) 2373-2164 (Online) DOI: 10.15640/jpesm.v4n1a2, URL: https://doi.org/10.15640/jpesm.v4n1a2

Tomaszewski, P., Milde, K., Majcher, A., Pyrz'ak, B., Tiryaki-Sonmez, G., Schoenfeld, B. Advs Exp. Medicine, Biology - Neuroscience and Respiration. 2017 DOI 10.1007/5584_2017_65

Ucan, Y., Tiryaki-Sonmez, G. Effect of 2 Weeks Vitamin E Supplementation to the Point of Anaerobic Threshold. Ethno Med, 11(1): 13-20, 2017.

Tiryaki-Sonmez, G. Active Learning in the Sciences: WAC and a Food Nutrition Course. In Wolfe, M. & Yood. J. (Eds.) Public voices: Writing across Lehman College 2003-2012 (pp. 15-19). Bronx, NY: Lehman College of City University of New York. 2016. http://www.lehman.edu/academics/wac/index.php

Schoenfeld BJ, Aragon AA, Moon J, Krieger JW, Tiryaki-Sonmez G. Comparison of amplitude-mode ultrasound versus air displacement plethysmography for assessing body composition changes following participation in a structured weight-loss programme in women. Clin Physiol Funct Imaging. Online, 2016. DOI: 10.1111/cpf.12355.

Sozbir, K., G., Willems, M.E, **Tiryaki-Sonmez**, Ragauskas, Paulius. Acute Effects OF Contract-Relax PNF and Static Stretching on Flexibility, Jump Performance, and EMG Activities: A Case Study. Biology of Exercise, 12:1, 2016 DOI: http://doi.org/10.4127/jbe.2016.0099

- Schoenfeld, B.J., Contreras, B., Ogborn, D., Galpin, A., Krieger, J., **Sonmez, G. T.** Effects of Varied Versus Constant Loading Zones on Muscular Adaptations in Trained Men Int J Sports Med. 36:1–6, 2015. DOI http://dx.doi.org/.doi.org/10.1055/s/0035-1569369.
- **Tiryaki- Sonmez, G.,** Vatansever, S., Olcucu, B., Cinar, V. Impact of Music on Exercise Performance. Int. J. Rev. Life. Sci., 5(3), 1307-1312, 2015.
- Olcucu, B., Vatansever, S., **Tiryaki- Sonmez, G.,** Burkan, S. Effect of Acute Exercise on Hunger in Healthy Woman. International Journal of Science Culture and Sport (IntJSCS), 3(3):6-17, 2015. DOI: 10.14486/IntJSCS383
- Vatansever, S., Olcucu, B., **Tiryaki- Sonmez, G.** Impact of Exercise Modes on Appetite Markers. The Anthropologist, 21(1,2): 129-136, 2015.
- **Tiryaki- Sonmez, G.,** Vatansever, S., Olcucu, B. Schoenfeld, B. Obesity, Food Intake and Exercise: Relationship with Ghrelin. Biomedical Human Kinetics, 7, 119–127, 2015. DOI: 10.1515/bhk-2015-0019.
- Olcucu, B., Vatansever, S., **Tiryaki- Sonmez, G.,** Schoenfeld, B. Exercise And Hormones Related To Appetite Regulation. Adv. Environ. Biol., 9(2), 1250-1263, 2015.
- Sozbir, K., **Tiryaki-Sonmez, G.,** Yuktasir, B., Yalcin, H.B., Aydin, K., Yildiz. N. The Effects Of Two Different Stretching Exercises Together With Plyometric Training On Flexibility, Vertical Jump Performance And Electromyographic Activities Of Muscles Of Lower Extremity. International Refereed Journal of Orthopaedics Traumatology And Sports Medicine. 2 (3): 32-53, 2015. ID:19 K:16, ISSN Print: 2148-4805 Online 2148-5550, (In Turkish).
- Schoenfeld B. J., Peterson MD, Ogborn D, Contreras B, **Tiryaki-Sonmez G.** Effects of Low-Versus High-Load Resistance Training on Muscle Strength and Hypertrophy in Well-Trained Men. J Strength Cond Res. Oct. 29 (10):2954-63, 2015. doi: 10.1519/JSC.0000000000000058.
- Schoenfeld, B. J., Contreras, B., **Tiryaki-Sonmez, G.,** Wilson, J. M., Kolber, M. J., Peterson, M. D. Regional Differences in Muscle Activation During Hamstrings Exercise. Journal of Strength & Conditioning Research: Volume 29 Issue 1 p 159–164. December 2014. doi: 10.1519/JSC.000000000000598
- Schoenfeld, B. J., Contreras, B., Willardson, J.M., Fontana, F., **Tiryaki-Sonmez, G**. Muscle Activation During low-Versus high Load Resistance Training in Well Trained Men. European Journal of Applied Physiology, December 2014, Volume 114, Issue 12, pp 2491-2497, December 2014. DOI 10.1007/s00421-014-2976-9.
- Schoenfeld, B.J., Aragon, A.A., Wilborn, C. D., Krieger, J.W., **Tiryaki-Sonmez, G.** Body Composition Changes Associated with Fasted Versus Non-Fasted Aerobic Exercise. J Int Soc Sports Nutr., 11(1):54, Nov 18, 2014. doi: 10.1186/s12970-014-0054-7.

- Ozen, S., Olcucu, B., Burkan, S., **Tiryaki- Sonmez, G**. Effect of Acute Resistance Exercise on Appetite in Healthy Men. Life Sci J., 11 (10):1220-1224, 2014. (ISSN:1097-8135). http://www.lifesciencesite.com. 182
- Ozen, G., Ozen, S., **Tiryaki- Sonmez, G.** The Effect Of Different Life Experiences -Camp Life And The High And Low Rope Tracks Activities On The Perception Of Self-Efficacy. Journal of Sports and Performance Researches. 5:2, p.5-12, 2014. http://dergipark.ulakbim.gov.tr/omuspd/article/view/1009002665. (In Turkish).
- Schoenfeld, B.J., Ratamess, N., Peterson, M.D., Contrears, B., **Tiryaki-Sonmez, G.,** Alvar, B.A. Effects of different volume-equated resistance training loading strategies on muscular adaptations in well-trained men. Journal of Strength & Conditioning Research. 2014 Oct; 28 (10): 2909-18. doi: 10.1519/JSC.0000000000000480.
- Ozen, S., Olcucu, B., Ozen, G., Dalli, M., **Tiryaki- Sonmez, G.** The Relationship Between Physical Fitness and Obesity in Turkish School Children. Journal of Health Sport and Tourism, 5(2), 2014. http://www.ijar.lit.az/medicine.php?go=currentmed
- **Tiryaki-Sonmez, G.,** Ozen, S., Olcucu, B. Respiratory Muscle Strength and Lung Volumes in Male Turkish Adolescents. International Journal of Academic Research Part A; 6 (5), 2014. DOI: 10.7813/2075-4124.2014/6-5/A.15
- Schoenfeld, B.J., Contreras, B., **Tiryaki-Sonmez, G.,** Willardson, J.M., Fontana, F., Harris, R. An Electromyographic Comparison of a Modified Version of the Plank with a Long-lever and Posterior Tilt Versus the Traditional Plank Exercise: Implications for Functional Performance. Sports Biomech. 13(3): 296-306, Sept. 2014. doi: 10.1080/14763141.2014.942355. Epub 2014 Aug 5.
- **Tiryaki-Sonmez G.,** Ozen S., Bugdayci G., Karli U, Ozen G., Cogalgil S., Schoenfeld B., Sozbir K., Aydin K. Effect Of Exercise On Appetite-Regulating Hormones In Overweight Woman. Biol. Sport, 30:75-80, 2013. DOI: 10.5604/20831862.1044220
- Contreras, B., Cronin, J., Schoenfeld, B., Nates, R., **Tiryaki- Sonmez, G**. Are All Hip Extension Exercises Created Equal? Strength and Conditioning Journal, 35(2):17-22, 2013, doi:10.1519/SSC.0b013e318289fffd
- Bugdayci, G., Yuktasir, B., Ozen, S., Yalcin, H.B., **Tiryaki- Sonmez, G.,** Cakici, H. The Effect of Exercise on Salivary Alpha-Amylase (sAA) Activity in Athletes. Journal of Turkish Clinical Biochemistry (Türk Klinik Biyokimya Dergisi), 11(1): 1-5, 2013. (In Turkish).
- Schoenfeld, B.J., **Tiryaki-Sonmez, G.,** Kolber, M.J, Contreras, B., Harris, R., Ozen, S. Effect of Hand Position on EMG Activity of the Posterior Shoulder Musculature During a Horizontal Abduction Exercise. J Strength Cond Res. 2013, Oct;27 (10): 2644-9. doi: 10.1519/JSC.0b013e318281e1e9. [Epub January 8th 2013].
- Contreras, B., Schoenfeld, B., Mike, J., Tiryaki-Sonmez, G., John Cronin, J., Vaino, E. The Biomechanics of the
- Push-up: Implications for Resistance Training Programs. Strength and Conditioning Journal, Volume 34 Issue 5 p 41–46, 2012, doi: 10.1519/SSC.0b013e31826d877b.

INVITED SPEAKER

"Inactivity and Obesity Rates in Different Countries" Invited speaker, The 4th International *Balkan* Conference in Sport Sciences in Bursa, Turkey Bursa, May 21 – 23, 2017.

"Physical Activity and Appetite Hormones" Invited Speaker to give lectures for Doctoral students at Faculty of Sports, Uludag University, Turkey, 15 April, 2016.

"Inactivity and Obesity"

Invited speaker and give lectures at Josef Pilsudski University of Physical Education in Warsaw, Poland, September 23-27, 2015.

INTERNATIONAL PRESENTATIONS:

Demirel, N., **Tiryaki- Sonmez, G.,** Vatansever, S., Olcucu, B. The Effects of Gymnastics and Whole Body Vibration Exercises on Some Physical Fitness Parameters. 6th International Conference on Sport and Society "Sport in the Americas", University of Toronto, Toronto, Canada, 30-31 July 2015. (http://sportandsociety.com/the-conference).

Vatansever, S., **Tiryaki- Sonmez, G.,** Olcucu, B., Demirel, N. The Effects of Different Intensity Exercises on Appetites in Healthy Woman. 6th International Conference on Sport and Society "Sport in the Americas", University of Toronto, Toronto, Canada, 30-31 July 2015. (http://sportandsociety.com/the-conference.

Olcucu B, Vatansever S, **Tiryaki- Sonmez G.**, Oner S. Effect of Acute Exercise on Hunger in Healthy Woman. 4th International Conference on Science Culture and Sports. 22-26 May 2015, Ohrid, Makedonia.

Vatansever S, Olcucu B, **Tiryaki- Sonmez G.**, Oner S. Obestatin Response To Resistance Exercise in Male. 4th International Conference on Science Culture and Sports. 22-26 May 2015, Ohrid, Makedonia.

Oner S, Ozen S, Olcucu B, **Tiryaki Sonmez G.** Effect of Acute Resistance Exercise on Appetite in Healthy Men. 13th International Sports Sciences Congress, 7-9 November, 2014, Konya, Turkey.

Certel, Z., Bahadir, Z., **Tiryaki Sönmez, G.** Evaluation Of The Relation Between Self Esteem And Decision Making Styles In Team Sports In Terms Of Empathy And Decision Making. 12th International Sport Sciences Congress Denizli, Turkey, http://www.sporbilimlerikongresi2012.org/PROGRAM_SBK2012.pdf. page 40, P229, December 12-14, 2012.

Ozen, S., Ozen, G., **Tiryaki- Sonmez, G.** Physical Activity Levels of Turkish University Students. 22nd TAFISA World Congress, Sport for All: Building Bridges, November 10-14, Antalya, Turkey. Abstract book, p. 111-112, 2011.

LOCAL PRESENTATIONS

Alto, A., Gonzalez, O., Nazzerzadeh, S. and **Tiryaki-Sonmez, G.,** and Schoenfeld, B. Functional and preventative aspect of strengthening hip flexor muscles in relation to hip fractures in elderly population. Lehman College 7th Annual Research and Scholarship Day, April 24th, 2015.

PH.D. THESIS TITLE:

The Effects of Sodium Bicarbonate and Sodium Citrate Administration on 600m Running Performances, May 1990

PUBLICATIONS (Prior to "last five years")

Books:

Tiryaki-Sonmez, G.Exercise and Sports Physiology. Bolu, Turkey: Ata Press, 2002.

Tiryaki, G. Sources of Energy, Training Methods and Nutrition. Ankara, Turkey: General Management of Youth and Sports Press. 1993.

Book Chapters:

Tiryaki, G., F. Tuncel, F. Yamaner, S.A. Agaoglu, H. Gumusdag, M.F. Acar. Comparison of the Physiological Characteristics of the First, Second and Third League Turkish Soccer Players. Science and Football III. Eds. T. Reilly, J. Bangsbo and M. Hughes.E & F Spon, London: p.32-36, 1997.

Işlegen, C., M.F. Acar, A. Cecen, T. Erding, R. Varol, **G. Tiryaki**, O. Karamızrak. Effects of Different Pre-Season Preparations on Lactate Kinetics in Professional Soccer Players. Science and Football III. Eds. T. Reilly, J. Bangsbo and M. Hughes. E & F Spon, London: p.103-105, 1997.

Tamer, K., M. Gunay, **G. Tiryaki,** I. Cicioglu, E. Erol. Physiological Characteristics of Turkish Female Soccer Players. Science and Football III. Eds. T. Reilly, J. Bangsbo and M. Hughes. E & F Spon, London:p.37-39, 1997.

Tiryaki, G., S. Cicek, A.T. Erdogan, F. Kalay, A.T. Atalay. The Analysis of the Offensive Pattern of the Switzerland Soccer Team in the 1994 World Cup. Notational Analysis of Sport I & II (Ed. M. Hughes) E & F Spon, London: p. 91-98, 1995.

Peer-reviewed articles:

Aydin, K., Sozbir, K., Yuktasir, B., Yalcin, H. B., Yildiz, N., **Tiryaki–Sonmez, G.** The Comparison of EMG Activities of Knee Extensor Muscles Between Soccer Players and Sprinters During Countermovement Jump

Performance. Nigde University Journal of Physical Education and Sport Sciences, (Nigde Universitesi Beden Egitimi ve Spor Bilimleri Dergisi) 5:(3), 242-249, 2011. (In Turkish).

Schoenfeld, B., **Tiryaki-Sonmez, G**. Overcoming Psychosocial Barriers to Maternal Exercise: Intervention Strategies to Improve Participation and Adherence. Biomedical Human Kinetics, 3, 61 – 66, DOI: 10.2478/v10101-011-0014-5, 2011.

Ozen, S., **Tiryaki-Sonmez, G.,** Bugdayci, G., Ozen, G. The Effects Of Exercise On Food Intake And Hunger: Relationship With Acylated Ghrelin And Leptin. Journal of Sports Sciences and Medicine, 10, 283-291, 2011.

Tiryaki-Sonmez, G., Schoenfeld, B., Vatansever-Ozen, S. Omega 3 Fatty Acids And Exercise: A Review Of Their

Combined Effects On Body Composition And Physical Performance. Biomedical Human Kinetics, 3, 23 – 29, DOI: 10.2478/v10101-011-0007-4, 2011.

Ozen, S., **Tiryaki-Sonmez, G.,** Ozen, G. Anthropometric, Strength And Pulmonary Characteristics Of Elite And Non Elite Sport Climbers. E-Journal of New WorldSciencesAcademy, ISSN:1306-3111, 6:2, Article number 2B0071, 2011. (In Turkish).

Tiryaki-Sonmez, G., Çolak, M., Sönmez, S., Brad Schoenfeld. Effects of Oral Supplementation of Mint Extract on

Muscle Pain and Blood Lactate. Biomedical Human Kinetics, DOI: 10.2478/v10101-0016-8, 2: 25-29, 2010.

Yaman, H., **Tiryaki-Sonmez, G.,** Gurel, K. The Effects Of Oral L-Arginine Supplementation On Vasodilation And Max VO2 Level of Male Soccer Players. Biomedical Human Kinetics, DOI:10.2478/v10101-010-0006- x, 2: 66-69, 2010.

Ozen, S., **Tiryaki-Sonmez, G.,** Yuktasir, B., Yalcin, B., Bugdayci, G., Willems, M. Effects Of Exercise On Leptin

And Acylated Ghrelin Hormones In Trained Males. Journal of Exercise Physiologyonline, 12 (2): 20-30, 2010.

Rising, R., **Tiryaki-Sonmez, G.** Energy Expenditure and Physical Activity In Recovering Malnourished Infants

Journal of Nutrition and Metabolism, Article ID 171490, 7 pages, doi:10.1155/2010/171490, 2010.

Tiryaki- Sonmez, G., Ozen, S., Yuktasir, B., Yalcin, B., Ozen, G., Sonmez, S., Demirel, N.. The Effects Of High Altitude Climbing On Respiratory Parameters. Medicine Sportiva, 13 (1): 49-53, 2009.

Bugdayci, G., Koc, O., Yuktasir, B., Ozen, S., Yalcin, HB., **Tiryaki-Sonmez, G.** Salivary Antioxidant Capacity During Exercise In Athletes. Third International Congress Of Molecular Medicine, May 5–8, 2009, Istanbul, Turkey. Congress Proceedings, IUBMB Life, 61, 368-369, 2009.

Ozen, S and **Tiryaki-Sonmez, G.** Ghrelin Hormon And Exercise. Gazi University Journal of Physical Education & Sport Sciences, (Gazi Universitesi Beden Egitimi ve Spor Bilimleri dergisi), XIII, 3: 11 – 24, 2008.

- Ozen, S., Demirel, N., Yalcin, H.B., **Tiryaki-Sonmez, G.,** The Overweight and Obesity Prevalence in 7-14 years Old Elementary School Children Living in Bolu, TURKEY. International Sport Sciences Congress, October 23-25, Bolu, Turkey, p.964-967, 2008.
- Sozbir, K., Tiryaki-Sonmez, G., Yuktasir, B., Yalcin, H. B., Aydin, K., Yildiz, N. The Effects of Two Different
- Streching Exercises Together With Plyometric Training On EMG Values And Some Physiological Parameters. 12th Annual Congress of the European Conference of Sport Sciences (ECSS), p. 21, 2007.
- Guler, M., **Tiryaki-Sonmez, G.,** Yalcın, B., Stelzer, J., Ozer, S., Aydın, K. The Personality Characteristics Of Competitive Gymnasts. 7. World Congress of Performance Analysis of Sport, Szombathely, Hungary. Congress Proceedings. p. 98, 2006.
- Gulseven, O., **Tiryaki-Sonmez, G.,** Yuktasır, B., Yalcın, B., Stelzer, J., Ucan, Y. The Effects Of Sodium Bicarbonate Loading On Anaerobic Performance. 7. World Congress of Performance Analysis of Sport, Szombathely, Hungary. Congress Proceedings. p. 87, 2006.
- Sozbir, K., Yuktasır, B., Yalcın, B., Aydın, K., Ozen, S., Stelzer, J., **Tiryaki-Sonmez, G**. Investigation The Relationships Between Velocity, Agility And Vertical Jump To Performance Of Static Long Jump. 7. World Congress of Performance Analysis of Sport, Szombathely, Hungary. Congress Proceedings. p. 70, 2006.
- Guzel, G., Gokmen, H., **Tiryaki-Sonmez, G.,** Yuktaşır, B., Konukman., F. The Effects of Arousal Level on Reaction Time of 8-Year Old Children in Karate. Journal of Physical Education and Sport Sciences (http://e- dergi.atauni.edu.tr/index.php/besyo/article/view/921), 7 (2): 45-54, 2005.
- Biçer, B., **Tiryaki-Sonmez, G.,** Yuktaşır, B., Yalçın, H.B., Kaya, F. The Effect on Leg Strength of Different Overloads with Therabands. 10th ICHPER-SD Europe Congress and 8th TSSA International Sports Science Congress, Antalya, Turkey, Congress Proceedings. p.117, 2004.
- Colak, R., **Tiryaki-Sonmez, G.** Performans Analysis and Periodization of Training in Long Distance Runners-I. www.atletik.org/ABTD-makaleler/makale-abtd0332-sayi43-sayfa23, 2001.
- Colak, R., **Tiryaki-Sonmez, G.** Performans Analysis and Periodization of Training in Long Distance Runners-II. www.atletik.org/ABTD-makaleler/makale-abtd0333-sayi44-sayfa5, 2001.
- Inal Ince, D., **Tiryaki- Sonmez, G.,** Ince, M.L. Effects of Garlic on Aerobic Performance. Turkish Journal of Medical Sciences. 30(6):557-561, 2000.
- Sonmez, S., **Tiryaki-Sonmez, G.,** Yuktaşır, B., Şemşek, O.,Çolak, R. Effects of Using Nasal Stripe on Aerobic Performance in Women. Journal of Physical Education & Sport Sciences, (Gazi BESBD), V, 4: 3 10, 2000.
- Sonmez, S., **Tiryaki-Sonmez, G.,** Yuktaşır, B., Şemşek, O.,Çolak, R. Effects of Nose Strap Usage on Aerobic Capacity in Men. Performance. 4(3-4):69-74, 1998.

- Ince, M.L., **Tiryaki-Sonmez, G,** Koşar, N., Inal, D.. Blood Lactate, Ammonium, Phosphate Levels and Depletion Times in Distance Runners. A comparison between interval and endurance training. V. International Sports Science Congress, Ankara, Turkey, Congress Proceedings. p. 240-241, 1998.
- Aşçı, F.H., Gokmen, H., **Tiryaki, G.** Self Concept and Body Image of Turkish High School Male Athletes and Non-Athletes. Adolescence. 32(128):960-968, 1997.
- **Tiryaki, G.** and S. Muniroglu. Introducing the Use of Computer Analyses in Soccer. Journal of Soccer Science and Technology. p.18-19, 1996.
- **Tiryaki, G.** A.T. Atalay, A. Kin. Performance Analysis of the Turkish National Soccer Team during the European Cup Elimination and Final Matches. III. World Congress of Notational Analysis of Sports, Antalya, Turkey, Congress Proceedings. pp.30, 1996.
- **Tiryaki, G.,** Talent Identification in Sports. Education and Health Center for Athletes (SESAM), Academic Activity Book, p.22-26, 1996.
- **Tiryaki, G.,** and H. Atterbom. The Effects of Sodium Bicarbonate and Sodium Citrate Administration on 600m Running Performances. The Journal of Sports and Medicine and Physical Fitness (Turin, Italy). 35:194-198, 1995.
- **Tiryaki, G.** and F. Konukman. (Translation.) Thirty-Minute 12-Station Skill Improvement Training for Soccer. Journal of Soccer Science and Technology, p. 27-28, 1995.
- **Tiryaki, G.** Sexual Activity and Athletic Performance. Journal of Science and Technic. 335:101-102, 1995. Tuncel, F., Tiryaki, G., Tamer, K. Assessment of Cardiovascular Disease Risk Factors and Max VO2 of Adults. International Rehabilitation Medicine Congress, Istanbul, Turkey, p 86, 1995.
- **Tiryaki, G.,** F. Tuncel, K. Tamer. A Study on Lung Capacity and Body Composition of University Faculty Members. International Rehabilitation Medicine Congress, Istanbul, Turkey, p. 86, 1995.
- Tuncel, F., L. Ince, A. Kin, D. Inal, T. Atalay, **G. Tiryaki.** A Comparison of Physical and Physiological Parameters in Swimmers, Cyclists, Runners and Triathletes. FISU/CESU Conference. Tokyo, Japan, CongressProceedings. p.420-421, 1995.
- **Tiryaki, G.,** D. Inal, L. Ince. (Translation.) Theory and Practice of Endurance Training. Journal of Athletics Science and Technology. 16:9-13, 1994.
- **Tiryaki, G.** Olympic Preparations: Identification of Talent and Scientific Training Methods. Symposium: "Turkey in the Olympics" İTU Physical Education and Sports Department, Istanbul, Turkey, Proceedings, p. 163-169, 1994.
- **Tiryaki, G.** Exercise and Activation of Insulin Hormone. Second Congress on Altitude and Sports. University of Erciyes Press, Kayseri, Turkey: Congress Proceedings. p.47-57, 1993.

Tiryaki, G. and M. Unal. The Relationship of Blood Phosphokinase and Lactate Dehydrogenase Enzyme Levels with Muscular Soreness in Female Gymnasts Following Isometric Contractions. International Sports Science Conference, Singapore, Congress Proceedings. p. 259-269, 1993.

Ascı, F., Gokmen, H., **Tiryaki, G,** Aşçı, A., Zorba, E. The Effects of Participation in Sports on Level of Satisfaction with Body Image of Male Students. Journal of Athletics Science and Technology. 4(3):38-47, 1993.

Tiryaki, G. and S. Koçak. (Translation.) Stride Length in Sprint Running II: Analysis and Evaluation. Journal of Athletics Science and Technology. 9:5-10, 1993.

Tiryaki, G. and G. Dogu. Weight Reduction of Wrestlers. Journal of Wrestling (Turkish Wrestling Foundation). 2:17, 1993.

Tiryaki, G., and S. Koçak. (Translation.) Stride Length in Sprint Running I: Analysis and Evaluation. Journal of Athletics Science and Technology. 8:21-24, 1992.

Zorba, E., **Tiryaki, G.,** Doğu, G. Development of a Skinfold Equation for Prediction of Body Fat in Turkish Wrestlers. International Health, Physical Education and Recreation World Congress, Limerick, Ireland, Congress Proceedings. p.138, 1991.

Tiryaki, G. Participation of Women in Long Distance Running. Journal of Onspor. 7(II-IV):30-31, 1991.

Tiryaki, G. Recent Approaches to Altitude Training. First Congress on Altitude and Sports University of Erciyes Press, Kayseri, Turkey: Congress Proceedings. p.71-87, 1991.

<u>UNPUBLISHED WORK</u> (Supported by Evidence)

Works accepted for publication:

Peer Reviewed

Non-Peer Reviewed:

Works submitted for publication:

Peer-reviewed articles:

Tiryaki- Sonmez, G., Vatansever, S., Olcucu, B. Satellite Cell, Muscle Hypertrophy and Exercise, Submitted to *Biology of Sports*, Submitted May 2016.

G., Vatansever, S., Olcucu, B., Tiryaki- Sonmez, G. Heat shock proteins response to exercise, *International Journal of Academic Research*, Submitted April 2016.

Works in progress:

- Tiryaki-Sonmez, G., Vatansever, S., Olcucu, B., Schoenfeld, B.J. The anti-oxidative and anti-inflammatory effects of Rosemary extract after long term high-intensity exercise on the immune and oxidative systems, International Journal of Preventive Medicine, June 2016.
- Sozbir, K., Tiryaki-Sonmez, G., Schoenfeld, B. The acute effects of drop jumps with different intensities on countermovement jump performance and lower extremity electromyography. Journal of Human Kinetics, March 2016.
- 1. The effects of exercise on obestatin hormone and food intake in obese and normal weight adults.
- 2. The effects of whole body vibration exercises on body composition markers in male athletes.
- 3. Effects different types of exercises on muscle strength and EMG activities
- 4. The effect of Pilates exercise on the levels of Salivary Cortisol and Salivary Alpha Amylase activity.

Grant writing in progress

- 1. The anti-oxidative and anti-inflammatory effects of Rosemary extract after acute high-intensity exercise on the immune and oxidative systems (NIH grant application)
- 2. Prevention of Childhood Obesity (NIH grant application)

GRANTS RECEIVED

- a. Multiple
- b. Individual

Grants received:

- **1.** 2016-2017 Graduate Research Technology Initiative, State of New York. Exercise Science/Pre-physical Therapy, \$37,599.
- 2. CUNY 2015-2016 Student Technology Fee Grant Exercise Science/Pre-physical Therapy, \$30,672.

- **3.** 2014-2015 Graduate Research Technology Initiative, State of New York. Exercise Science/Pre-physical Therapy, \$45,900.
- **4.** PSC-CUNY 43 Research Award (2012)-The Effects of Resistance Exercise on Obestatin Hormone and Food Intake, City University of NewYork (CUNY), \$3,200.
- **5.** PSC-CUNY 42 Research Award (2011)-The Effects of Exercise on Obestatin Hormone and Food Intake, City University of NewYork (CUNY), \$3,500.
- **6.** Shuster Fellowship Award (2008) The Effects of Exercise on the Level of Hormones Regulating Food Intake in Young Adults, Lehman College, CUNY. \$ 4,000.
- 7. Scientific Research Funding, Project Director (2004-06) Establishment of the Exercise Physiology Lab, Abant Izzet Baysal University, Bolu, Turkey. \$150,000.
- **8.** Turkish Soccer Foundation, (1996) Conference Organization. \$10,000
- 9. Turkish Scientific Research Foundation (1995) Expenses for Attending a World Congress Sports Sciences in England. \$2,000
- 10. Scientific Research Funding, Project Director (1992-94) Physiological Effects of Altitude Training,
- 11. Middle East Technical University, Ankara, Turkey. \$30,000.

Grants submitted, but not funded;

- Designing and Testing a Mobile Gaming Application to Promote Healthy Food & Exercise Behaviors for Adolescents, NIH NIH-R21 APPLICATION, http://grants.nih.gov/grants/guide/pa-files/PA-11-329.html
- 2. The Effect of a Cooking and Exercise Program on the Body Mass Index of Children Robert Wood Johnson Foundation (RWJF) in 2009.
- 3. A Comparison of School Lunches and Home Prepared Lunches on the Body Mass Index Level of children PSC-CUNY in 2009

SERVICE TO THE COLLEGE

Chair of the Department of Health Science, July 2014-July 2017

Member of the College P&B Committee, July 2014-July 2017

The Senate Committee on the Budget and Long Range Planning - September 2015 - Present

Member of the Instructional support Services Program (ISSP) Advisory Committee 2011-present

Member of the Faculty Election Committee, 2008-Present

Member of the Foundations of Excellence "All Students" Dimension Committee, 2010-2011

SERVICE TO THE DEPARTMENT

Director of the Exercise Science Program, Department of Health Science at Lehman College, 2009-Present.

Developed the Undergraduate Program in Exercise Science Program with option of Pre-Physical Therapy and with option of Exercise and Movement Science, 2010- Present.

Developed the Undergraduate Program in Exercise Science Program in the Department of Health Science at Lehman College, 2007- Present.

Member of the Departmental P&B Committee. 2014-Present

Member of the Departmental Grade Appeal Committee, 2011- Present.

Advising more than 300 students majoring in Exercise Science- 2007- Present.

Prepared Internship Manual-2012

Chair of the Search Committee for a new faculty in Exercise Science Program, 2009-2013

Member of the Departmental Curriculum Committee, 2008-2014

Member of Search Committee for new faculty in different programs of the Department of Health Sciences at Lehman College, Spring 2008

SERVICE TO THE UNIVERSITY

- Member of Focus Group for Housing at CUNY, Spring 2008
- Representative of Department of Health Sciences in Open House of Lehman College, Fall 2007
- Representative of Department of Health Sciences in Open House of Lehman College, Spring 2013).

COMMUNITY SERVICE

• Volunteer to be a soccer coach for Riverdale Soccer club, Riverdale, Bronx, NY., 2007-2012

- Volunteer as Classroom Representative: PS 24, Riverdale, Bronx, NY. 2009-2013
- Volunteer as Learning Leader: PS 24, Riverdale, Bronx, NY. 2009-2013

MEMBERSHIP IN PROFESSIONAL SOCIETIES (last five years only)

- American College of Sports Medicine
- American Society of Exercise Physiologist
- International Network on Sport and Health Sciences

PROFESSIONAL ACTIVITIES

- Editor of International Journal of Sports, Exercise and Training Science, 2015-Present.
- Regional Editor in Journal of Biomedical Human Kinetics, University of Physical education, Warsaw, Poland. 2010- Present.
- Scientific Committee Member of *Olympic Sport and Sport for All* XXI International Congress, September 14-16, 2017.
- Scientific Committee Member of International Science and Football Conference, 24-25 March 2016,
 Qatar.
- Quantative Reasoning workshop-2011-2012
- Critical Thinking Assessment -2010- 2011
- Scientific Committee of 10th International Sport Sciences Congress, November 10-12, 2010, Antalya, Turkey.
- Scientific Committee of 15th Annual Congress of the European College of Sport Science, June 23-26, 2010, Antalya, Turkey.
- Writing Across The Curriculum- 2007-2008
- Writing Across The Curriculum, "Revamping Writing" Workshop, May 2015

- Writing Across The Curriculum, "Peer Review Boot camp" Workshop, April 2015
- Grant writing lecture presented by Dean Latimer, School of Health Sciences, Human Services, and Nursing at Lehman College; October 2014
- Preparation for Teaching Online: A Certification Workshop For CUNY Faculty, January, 2012

Andrew Alto

2728 Henry Hudson Parkway, Apt #25C (917) 870-2513 Andrew.Alto@Lehman.cuny.edu

EDUCATION

Doctorate of Education in Sport and Performance Psychology

(July 2017 to Present)

Concentration-Sports and Exercise Science *University of Western States*, Portland, OR

Master of Arts in Health Education and Promotion

December 2016

City University of New York –Lehman College, Bronx, NY

Bachelor of Science in Exercise Science

May 2015

City University of New York –Lehman College, Bronx, NY

Honors & Awards:

- Presidential Scholar (May 2014, May 2015)
- Degree Honors: Departmental Honors in Exercise Science
- Degree Honors: Magna Cum Laude
- Dean's List (May 2013)

SCHOLARLY PUBLICATIONS

- Schoenfeld, B.J., Contreras, B., Winkleman, N., Larson, R., Vigotsky, A., **Alto, A.**, Golden, S. (In Progress). *Effects of attentional focus during resistance training on longitudinal muscular adaptations*.
- Schoenfeld, B.J., Contreras, B., **Alto, A.**, Belliard, R. (In Progress). *Efficacy of a virtual reality training system on muscular adaptations and cardiorespiratory fitness*.

CONFERENCE PRESENTATIONS

- "Functional and Preventative Aspects of Strengthening the Hip Flexor Muscles in Relation to Hip Fracture in the Elderly Population" American College of Sports Medicine Regional Conference. New York, NY. November 7th 2015. 1st place winner for the undergraduate category.
- "Hip Flexor Strengthening and Prevention of Hip Fracture in the Elderly Population; Literature review and practical implications". Lehman College Annual Research and Scholarship Day. Bronx, NY. Honorable mention award for a scientific presentation.
- American College of Sports Medicine Regional Conference Student Bowl Participant. Queens, NY. April 2015.

CONTINUING EDUCATION

Performance Summit- Juggernaut Training Systems.
 2017

February

• 4th Annual Rutgers Human Performance Conference

April 2017 March 2017-Present

Reviewer

Journal of Strength and Conditioning

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

• CPR/AED Certified by the American Heart Association

November 2014 –

Present

• NSCA- Certified Strength and Conditioning Specialist: ID: 7248050313

December 2016-

Present

- American Society for Biomechanics, November 2014
- American College of Sports Medicine, June 2014
- National Strength and Conditioning Association, February 2013

PROFESSIONAL EXPERIENCE

Instructor (Exercise Science) Lehman College. Bronx, NY

August 2017-Present

Substitute Lecturer (Exercise Science)

August 2016 –

Present

Lehman College. Bronx, NY

Adjunct Lecturer (Exercise Science)

June 2016-July2016

Lehman College, Bronx, NY

• Taught Introduction to Exercise Science to undergraduate students

Teaching Assistant (Exercise Science)

Lehman College, Bronx, NY 2016

January 2016 - May

- - Led lab activities in strength and conditioning testing • Instructed students on proper lab techniques
 - Educated students on the essentials in strength and conditioning testing
 - Added evidence based information to class discussions and teaching

Head Research Assistant (Exercise Science)

Lehman College, Bronx, NY

February 2015 – May 2015

- Recruited research participants based on specific criteria
- Supervised and instructed 7 other research assistants on proper training techniques
- Organized and led weekly group meetings to ensure the research is running optimally
- Trained research subjects based on the specific exercise protocol provided by the head researcher
- Educated and instructed assistants and subjects on proper lifting techniques and the essentials to remaining efficient and effective throughout the research

Research Assistant (Exercise Science)

Lehman College, Bronx, NY

August 2014

December 2014

Fulfilled duties carried out in being a Head Research Assistant with the exclusion of supervising other assistants

• Developed daily reports for the Head Researcher based on the needs of the research and ways to keep it running optimally

Group Fitness Instructor/Workshop Leader Lenox Hill Neighborhood House. New York, NY April 2014

October 2013 -

- Constructed and led group fitness classes for members and guests of Lenox Hill
- Helped to develop and lead health workshops based on nutrition, fitness, health promotion and behavioral changes
- Developed and implemented weekly recreational trips for members in order to promote physical activity and mental health

Floor Trainer/Fitness Attendant Riverdale YM-YWHA, Bronx, NY

February 2010 – June 2012

- Supervised fitness room ensuring members were exercising safely and the gym was running efficiently at all times
- Educated and instructed members on proper use of equipment and recommended specific exercises and programs to help them achieve their goals
- Created and led group exercise classes for children ages 8-12
- Aided in the development and promotion of the Y yearly race to raise funds for infrastructure improvements and added member services

COURSE TAUGHT

- *Introduction to Exercise Science (EXS 264):* Orientation to the Field of Exercise Science, professional roles, nature, scope and significant of physical activity and exercise. Basic concepts of fitness and assessments as applied to individuals and unique groups.
- Behavioral Aspects of Physical Activity (EXS 265): Conceptual and theoretical frameworks for understanding the behavioral component of physical activity and exercise, and for developing intervention strategies for enhancing physical activity and exercise behavior.
- *Kinesiology & Biomechanics (EXS 315):* Study and application of anatomic and mechanical principles of human movement.
- *Motor Learning and Control (EXS 316):* Effects of psychological, social maturational, and neurophysiological factors on the learning and performance of movement patterns
- Exercise Physiology 1 (EXS 323): Human anatomy and physiology as related to physical activity, exercise, and work. Study of the nervous, endocrine, muscular, and cardiovascular systems. Factors that affect physiological function, energy transfer, and exercise performance.
- Exercise Testing and Prescription (EXS 326): Principles of fitness and the development of exercise programs to enhance health and/or human performances in a variety of settings. Methods of evaluating physiological adaptation to exercise using laboratory and field experiences.
- Exercise Physiology 2 (EXS 423): Human anatomy and physiology as related to physical activity, exercise, and work. Study of the nervous, endocrine, muscular, and cardiovascular systems. Factors that affect physiological function, energy transfer, and exercise performance.
- *Theory and Methods of Strength and Conditioning (EXS 425):* Strength production from a physiological, neurological, biomechanical, and bioenergetic perspective.

APPENDIX F

Qualifications for Human Performance and Fitness New Hire - Lecturer-Level Position

Position Description and Duties

- Teach graduate courses in Lehman College's Human Performance and Fitness program;
- Mentor and advise students in the program;
- Manage the program's action research project process;
- Assist with assessment and program development initiatives;
- Seek external funding for research and program improvements;
- Service to college, school and department;
- Participate in student recruitment, application and admissions processes; and
- Perform additional administrative duties for credit load assignment.
- Collaborate with faculty in the department on curricula, assessment, and department projects.
- Mentor students outside of the classroom (e.g. major's club, internships, and student-faculty collaborative research).

Qualifications Required

- Minimum master's degree in Exercise Science or a related field from an accredited institution;
- Experience in teaching graduate-level courses in exercise science;
- Experience in a lab, clinical, or professional setting directly related to exercise science.
- Current knowledge in technology, best practices, and recent trends in the exercise science field.
- Advanced fitness certification (e.g. Certified Strength & Conditioning Specialist) and professional affiliation is preferred.

APPENDIX G

References

- 1. Arem H, Moore SC, Patel A, Hartge P, Berrington de Gonzalez A, Visvanathan K, Campbell PT, Freedman M, Weiderpass E, Adami HO, Linet MS, Lee IM, Matthews CE: Leisure time physical activity and mortality: a detailed pooled analysis of the dose-response relationship. JAMA Intern Med (United States), 175 (6): 959-967, 2015.
- 2. Dallmeyer S, Wicker P, Breuer C: How an aging society affects the economic costs of inactivity in Germany: empirical evidence and projections. Eur Rev Aging Phys Act (Germany), 14: 18-017-0187-1. eCollection 2017, 2017.
- 3. Flegal KM, Kruszon-Moran D, Carroll MD, Fryar CD, Ogden CL: Trends in Obesity Among Adults in the United States, 2005 to 2014. JAMA (United States), 315 (21): 2284-2291, 2016.
- 4. Flegal KM, Kit BK, Orpana H, Graubard BI: Association of all-cause mortality with overweight and obesity using standard body mass index categories: a systematic review and meta-analysis. JAMA (United States), 309 (1): 71-82, 2013.
- 5. Ogden CL, Carroll MD, Kit BK, Flegal KM: Prevalence of childhood and adult obesity in the United States, 2011-2012. JAMA (United States), 311 (8): 806-814, 2014.
- 6. Davison KK, Birch LL: Weight status, parent reaction, and self-concept in five-year-old girls. Pediatrics (United States), 107 (1): 46-53, 2001.
- 7. Sinha R, Fisch G, Teague B, Tamborlane WV, Banyas B, Allen K, Savoye M, Rieger V, Taksali S, Barbetta G, Sherwin RS, Caprio S: Prevalence of impaired glucose tolerance among children and adolescents with marked obesity. N Engl J Med (United States), 346 (11): 802-810, 2002.
- 8. Whitaker RC: Predicting preschooler obesity at birth: the role of maternal obesity in early pregnancy. Pediatrics (United States), 114 (1): e29-36, 2004.
- 9. Barlow SE, Dietz WH: Obesity evaluation and treatment: Expert Committee recommendations. The Maternal and Child Health Bureau, Health Resources and Services Administration and the Department of Health and Human Services. Pediatrics (United States), 102 (3): E29, 1998.
- 10. Wolfe WS, Campbell CC, Frongillo EA, Jr, Haas JD, Melnik TA: Overweight schoolchildren in New York State: prevalence and characteristics. Am J Public Health (United States), 84 (5): 807-813, 1994.
- 11. Hedley AA, Ogden CL, Johnson CL, Carroll MD, Curtin LR, Flegal KM: Prevalence of overweight and obesity among US children, adolescents, and adults, 1999-2002. JAMA (United States), 291 (23): 2847-2850, 2004.

- 12. Burton LC, Shapiro S, German PS: Determinants of physical activity initiation and maintenance among community-dwelling older persons. Prev Med (UNITED STATES), 29 (5): 422-430, 1999.
- 13. Zacker RJ: Health-related implications and management of sarcopenia. JAAPA (United States), 19 (10): 24-29, 2006.
- 14. Waters DL, Baumgartner RN, Garry PJ, Vellas B: Advantages of dietary, exercise-related, and therapeutic interventions to prevent and treat sarcopenia in adult patients: an update. Clin Interv Aging (New Zealand), 5: 259-270, 2010.
- 15. Serra Rexach JA, Ruiz JR, Bustamante-Ara N, Villaran MH, Gil PG, Sanz Ibanez MJ, Sanz NB, Santamaria VO, Sanz NG, Prada AB, Gallardo C, Romo GR, Lucia A: Health enhancing strength training in nonagenarians (STRONG): rationale, design and methods. BMC Public Health (England), 9: 152, 2009.
- 16. Janssen I, Heymsfield SB, Ross R: Low relative skeletal muscle mass (sarcopenia) in older persons is associated with functional impairment and physical disability. J Am Geriatr Soc (United States), 50 (5): 889-896, 2002.
- 17. Davis JC, Marra CA, Robertson MC, Khan KM, Najafzadeh M, Ashe MC, Liu-Ambrose T: Economic evaluation of dose-response resistance training in older women: a cost-effectiveness and cost-utility analysis. Osteoporos Int (England), 22 (5): 1355-1366, 2011.
- 18. Tseng BS, Marsh DR, Hamilton MT, Booth FW: Strength and aerobic training attenuate muscle wasting and improve resistance to the development of disability with aging. J Gerontol A Biol Sci Med Sci (UNITED STATES), 50 Spec No: 113-119, 1995.
- 19. (2017). Bureau of Labor Statistics: Fitness Trainers and Instructors.
- 20. (2017). HealthyPeople.gov.
- 21. (2017). County Health Rankings.
- 22. (2017). Diabetes Home.
- 23. Thorpe LE, List DG, Marx T, May L, Helgerson SD, Frieden TR: Childhood obesity in New York City elementary school students. Am J Public Health (United States), 94 (9): 1496-1500, 2004.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 702/ HIS 747
& Number	
Course Title	Europe in the Renaissance and Reformation
Description	(Not open to students who have taken HIE 302). Major developments in Western Europe in the sixteenth and seventeenth centuries, including Renaissance humanism, the rise of the printed book, reformations of religion, overseas exploration and empires.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	NA NA A PARA PARA PARA PARA PARA PARA PA
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (European)
Course Prefix	HIE 702
& Number	
Course Title	Europe in the Renaissance and Reformation
Description	(Not open to students who have taken HIE 302). Major developments in Western Europe in the sixteenth and seventeenth centuries, including
	Renaissance humanism, the rise of the printed book, reformations of
	religion, overseas exploration and empires.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V. Nice A collection
General Education	_X_ Not Applicable
Component	Required English Composition
Component	Mathematics
	Science
	Ocience
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. Rationale:

Cross-listing HIE 702/HIS 747 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 707/ HIS 709
& Number	
Course Title	Europe in the Age of Enlightenment
Description	(Not open to students who have taken HIE 307). Society, politics, and economy in Europe from 1689 through the Napoleonic Wars.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V. Nat Angliachia
General	_X_ Not Applicable
Education Component	Required English Composition
Component	Mathematics
	Science
	Goldfied
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	History (European)
Course Prefix & Number	HIE 707
Course Title	Europe in the Age of Enlightenment
Description	(Not open to students who have taken HIE 307). Society, politics, and economy in Europe from 1689 through the Napoleonic Wars.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	_X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Cross-listing HIE 707/HIS 709 was never approved by department and should be removed.

DEPARTMENT OF_HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 708/ HIS 711
& Number	
Course Title	The French Revolution and Napoleon
Description	(Not open to students who have taken HIE 308). Preconditions of discontent in late eighteenth-century France; the origin and unfolding of the Revolution; the Thermidorean Reaction; and the rise of Napoleon and his influence in Europe.
Pre/ Co	•
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	OS Experience in its Diversity Creative Expression
	Individual and Society
	Scientific World

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (European)
Course Prefix	HIE 708
& Number	
Course Title	The French Revolution and Napoleon
Description	(Not open to students who have taken HIE 308). Preconditions of discontent in late eighteenth-century France; the origin and unfolding of the Revolution; the Thermidorean Reaction; and the rise of Napoleon and his influence in Europe.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics Science
	Science
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Cross-listing HIE 708/HIS 711 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 709/ HIS 713
& Number	
Course Title	Europe, 1815-1914
Description	(Not open to students who have taken HIE 309). Political, economical, social, and intellectual ideas and developments from the Congress of Vienna to World War I.
Pre/ Co	NA
Requisites	INA
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (European)
Course Prefix	HIE 709
& Number	
Course Title	Europe, 1815-1914
Description	(Not open to students who have taken HIE 309). Political, economical, social, and intellectual ideas and developments from the Congress of Vienna to World War I.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc) General	V Not Applicable
Education	_X_ Not Applicable Required
Component	Required English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. Rationale:

Cross-listing HIE 709/HIS 713 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 710/ HIS 715
& Number	
Course Title	History of European Diplomacy
Description	(Not open to students who have taken HIE 310). Survey of European diplomacy, with special emphasis on nineteenth-and twentieth-century
	developments.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>To</u>:

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (European)
Course Prefix	HIE 710
& Number	History of Europe Bishara
Course Title	History of European Diplomacy
Description	(Not open to students who have taken HIE 310). Survey of European diplomacy, with special emphasis on nineteenth- and twentieth-century developments.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V Not Applicable
General Education	_X_ Not Applicable Required
Component	Required English Composition
Component	Mathematics
	Science
	00101100
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. Rationale: Cross-listing HIE 710/HIS 715 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 716/ HIS 705
& Number	
Course Title	Nineteenth-century European Intellectual History
Description	(Not open to students who have taken HIE 316). The social and
	intellectual formation of liberalism, conservatism, nationalism,
	socialism, and anarchism, and their impact on political and social change in modern Europe.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

<u> </u>	
Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	History (European)
Course Prefix & Number	HIE 716
Course Title	Nineteenth-century European Intellectual History
Description	(Not open to students who have taken HIE 316). The social and intellectual formation of liberalism, conservatism, nationalism, socialism, and anarchism, and their impact on political and social change in modern Europe.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	_X_ Not Applicable
Education	Required
Component	English Composition Mathematics Science
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Cross-listing HIE 716/HIS 705 was never approved by department and should be removed.

DEPARTMENT OF_HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 717/ HIS 707
& Number	
Course Title	The History of Ideas and Ideologies in Twentieth-Century Europe
Description	(Not open to students who have taken HIE 317). The social movements and ideas that have shaped our modern consciousness, including communism, fascism, existentialism, feminism, revolution, and total war.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

Dan autos aut/: \	I Batama
Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (European)
Course Prefix	HIE 717
& Number	
Course Title	The History of Ideas and Ideologies in Twentieth-Century Europe
Description	(Not open to students who have taken HIE 317). The social movements and ideas that have shaped our modern consciousness, including communism, fascism, existentialism, feminism, revolution, and total war.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Cross-listing HIE 717/HIS 707 was never approved by department and should be removed.

DEPARTMENT OF_HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	History
Course Prefix	HIE 721/ HIS 717
& Number	
Course Title	Tudor-Stuart England
Description	(Not open to students who have taken HIE 321). The advent of the Tudor dynasty, Henry VIII, the divorce, and the church; Queen Elizabeth's government and the church; Elizabethan society; poverty and vagrancy in the Tudor state; the divine right of kings and mass political attitudes in early Stuart England; the origins of the civil war; the execution of Charles I; Oliver Cromwell and the saints; restoration England; and the Glorious Revolution
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive,	NA
WAC, etc)	
General Education Component	_X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

პ. <u>10</u> :	
Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (European)
Course Prefix	HIE 721
& Number	
Course Title	Tudor-Stuart England
Description	(Not open to students who have taken HIE 321). The advent of the Tudor dynasty, Henry VIII, the divorce, and the church; Queen Elizabeth's government and the church; Elizabethan society; poverty and vagrancy in the Tudor state; the divine right of kings and mass political attitudes in early Stuart England; the origins of the civil war; the execution of Charles I; Oliver Cromwell and the saints; restoration England; and the Glorious Revolution
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World
	23332

4. Rationale:

Cross-listing HIE 721/HIS 717 was never approved by department and should be removed.

DEPARTMENT OF_HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s) History	
Career [] Undergraduate [X] Graduate	
Academic [X] Regular [] Compensatory [] Developmental [] Remedial Level	
Subject Area History	
Course Prefix HIE 723/HIS 721	
& Number	
Course Title Britain in the Twentieth Century	
Description (Not open to students who have taken HIE 723). World War I and it effects on politics and society; the economic crisis of 1931 and the National Government; depression; Churchill and the war effort, the Labour Party, nationalization, and the welfare state after 1945; decolonization; economy and society under Thatcher; the rise of Nationalization.	
Pre/ Co NA	
Requisites	
Credits 3	
Hours 3	
Liberal Arts [X] Yes [] No	
Course NA Attribute (e.g. Writing Intensive, WAC, etc)	
General _X_ Not Applicable	
Education Required	
Component English Composition	
Mathematics	
Science Flexible	
	
World Cultures	
World Cultures US Experience in its Diversity	
World Cultures	
World Cultures US Experience in its Diversity Creative Expression	

3. <u>10</u> .	
Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (European)
Course Prefix	HIE 723
& Number	
Course Title	Britain in the Twentieth Century
Description	(Not open to students who have taken HIE 723). World War I and its effects on politics and society; the economic crisis of 1931 and the National Government; depression; Churchill and the war effort, the Labour Party, nationalization, and the welfare state after 1945; decolonization; economy and society under Thatcher; the rise of New Labour.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	_X_ Not Applicable Required English Composition Mathematics Science
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Cross-listing HIE 723/HIS 721 was never approved by department and should be removed.

DEPARTMENT OF_HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 730/ HIS 725
& Number	
Course Title	History of Modern France
Description	(Not open to students who have taken HIE 330. French politics, society, economy, and culture from the fall of Napoleon to the crisis of 1968. The revolution of the nineteenth century, colonial policy and
	decolonization, World Wars and recovery after 1950.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	History (European)
Course Prefix & Number	HIE 730
Course Title	History of Modern France
Description	(Not open to students who have taken HIE 330. French politics, society, economy, and culture from the fall of Napoleon to the crisis of 1968. The revolution of the nineteenth century, colonial policy and decolonization, World Wars and recovery after 1950.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	_X_ Not Applicable
Education Component	Required English Composition Mathematics Science
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Cross-listing HIE 730/HIS 725 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 741/ HIS 731
& Number	
Course Title	Germany from Bismarck through Hitler
Description	(Not open to students who have taken HIE 341). Study of Germany
	from Bismarck and the unification through Hitler, the Nazi regime, and
	the Second World War, with a brief survey of postwar development.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	M. M. J. H.
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	Flexible World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World
	03.3.1

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	History (European)
Course Prefix & Number	HIE 741
Course Title	Germany from Bismarck through Hitler
Description	(Not open to students who have taken HIE 341). Study of Germany from Bismarck and the unification through Hitler, the Nazi regime, and the Second World War, with a brief survey of postwar development.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Cross-listing HIE 741/HIS 731 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIE 743/ HIS 733
& Number	
Course Title	The Holocaust
Description	(Not open to students who have taken HIE 343). Study of the destruction of Jews of Europe during World War II. Political anti-Semitism in modern Europe; the rise of Hitler and Nazism. The interwar period in Europe and the spread of anti-Semitism. World War II, ghetto, deportation, and liquidation. Problems of rescue and resistance. Selected readings from the literature of the Holocaust.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V. Nat Appliachla
General Education	_X_ Not Applicable
Component	Required English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. To: Underline the changes

o. <u>ro</u> . <u>onacimi</u>	<u>s</u> the changes
Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	History (European)
Course Prefix & Number	HIE 743
Course Title	The Holocaust
Description	(Not open to students who have taken HIE 343). Study of the destruction of Jews of Europe during World War II. Political anti-Semitism in modern Europe; the rise of Hitler and Nazism. The interwar period in Europe and the spread of anti-Semitism. World War II, ghetto, deportation, and liquidation. Problems of rescue and resistance. Selected readings from the literature of the Holocaust.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	_X_ Not Applicable
Education Component	Required English Composition Mathematics Science Flexible US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Cross-listing HIE 743/HIS 733 was never approved by department and should be removed.

DEPARTMENT OF_HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIU 718/ HIS 736
& Number	
Course Title	History of American Foreign Relations, 1912 - Present
Description	(Not open to students who have taken HIU 318). American foreign relations from the early twentieth century to the present. The U.S. role in World Wars I and II; the Cold War; and the growth of presidential power in foreign affairs.
Pre/ Co	NA
Requisites Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	NA .
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>To</u>:

<u> </u>	
Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	History (United States)
Course Prefix & Number	HIU 718
Course Title	History of American Foreign Relations, 1912 – Present
Description	(Not open to students who have taken HIU 318). American foreign relations from the early twentieth century to the present. The U.S. role in World Wars I and II; the Cold War; and the growth of presidential power in foreign affairs.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	_X_ Not Applicable
Education Component	Required English Composition Mathematics Science Flexible World Cultures
	US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. **Rationale:** Cross-listing HIU 718/HIS 736 was never approved by department and should be removed.

DEPARTMENT OF_HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIU 731/ HIS 732
& Number	
Course Title	History of Women in America
Description	(Not open to students who have taken HIU 331). Historical study of
	women's conditions, statuses, and roles in American society from
D / O	colonial times to the present.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	W. Nie CA ex Peral In
General Education	_X_ Not Applicable
	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>To</u>:

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (United States)
Course Prefix	HIU 731
& Number	
Course Title	History of Women in America
Description	(Not open to students who have taken HIU 331). Historical study of women's conditions, statuses, and roles in American society from colonial times to the present.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V N (A P II
General	_X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. Rationale:

Cross-listing HIU 731/HIS 732 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIU 732/ HIS 726
& Number	
Course Title	History of Health Care in the United States
Description	(Not open to students who have taken HIU 332). Examination of health care in American from colonial times to the present. Topics include the development of the medical profession, the rise of the public health movement; the growth of hospitals, and popular attitudes toward health and disease.
Pre/ Co	
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V. Nat Angliaghia
General	_X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. To :	
Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	History (United States)
Course Prefix & Number	HIU 732
Course Title	History of Health Care in the United States
Description	(Not open to students who have taken HIU 332). Examination of health care in American from colonial times to the present. Topics include the development of the medical profession, the rise of the public health movement; the growth of hospitals, and popular attitudes toward health and disease.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	_X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression

4. Rationale:

Cross-listing HIU 732/HIS 726 was never approved by department and should be removed.

____ Scientific World

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIU 733/ HIS 708
& Number	
Course Title	American Urban History
Description	(Not open to students who have taken HIU 333). The formation, growth, and transformation of American cities from the wilderness village to the megalopolis. Emphasis on the changing political and economic roles of cities, patterns of social stratification, power, and mobility; and trends in recent urban social and cultural life.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive, WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	Regards English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History (United States)
Course Prefix	HIU 733
& Number	
Course Title	American Urban History
Description	(Not open to students who have taken HIU 333). The formation, growth, and transformation of American cities from the wilderness village to the megalopolis. Emphasis on the changing political and economic roles of cities, patterns of social stratification, power, and mobility; and trends in recent urban social and cultural life.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society Scientific World
	Goldhaid World

4. Rationale:

Cross-listing HIU 733/HIS 708 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIU 735/ HIS 710
& Number	
Course Title	Immigration in American
Description	(Not open to students who have taken HIU 335). The motives and aspirations of immigrants, their contributions to the effects on American social structure, and the tensions between assimilation and ethnicity.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V N (A P II)
General	_X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>To</u>:

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
	Listany (United Ctates)
Subject Area Course Prefix	History (United States) HIU 735
& Number	HIO 733
Course Title	Immigration in America
Description	(Not open to students who have taken HIU 335). The motives and aspirations of immigrants, their contributions to the effects on American social structure, and the tensions between assimilation and ethnicity.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	N. N. A. B. H. H.
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. Rationale:

Cross-listing HIU 735/HIS 710 was never approved by department and should be removed.

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIU 738/ HIS 728
& Number	
Course Title	The Family in American History
Description	(Not open to students who have taken HIU 328). Historical study of the family in America, including its European roots and its relationship to the frontier, slavery, immigration, and current developments in industrialism, urbanization, and technology.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>To</u>:

<u> </u>				
Department(s)	History			
Career	[] Undergraduate [X] Graduate			
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial			
	History (United States)			
Subject Area Course Prefix	HIU 738			
& Number	NIO 736			
Course Title	The Family in American History			
Description	(Not open to students who have taken HIU 328). Historical study of the family in America, including its European roots and its relationship to the frontier, slavery, immigration, and current developments in industrialism, urbanization, and technology.			
Pre/ Co	NA			
Requisites				
Credits	3			
Hours	3			
Liberal Arts	[X] Yes [] No			
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA NA			
General	_X_ Not Applicable			
Education	Required			
Component	English Composition Mathematics Science			
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World			

4. **Rationale:** Cross-listing HIU 738/HIS 728 was never approved by department and should be removed.

5. Date of departmental approval: 03/14/2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

2. **From**:

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIU 745/ HIS 712
& Number	
Course Title	American Economic History
Description	(Not open to students who have taken HIU 345). Studies in American economic development from the agricultural and commercial economy of the colonies to contemporary U.S. preeminence as an industrial nation. Attention will be given to the economic institution and policy with regard to political and social developments.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing Intensive,	
WAC, etc)	
General	_X_ Not Applicable
Education	Required
Component	Figure English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World
	Goldming World

3. **To**:

Department(s)	History		
Career	[] Undergraduate [X] Graduate		
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial		
Level			
Subject Area	History (United States)		
Course Prefix	HIU 745		
& Number			
Course Title	American Economic History		
Description	(Not open to students who have taken HIU 345). Studies in American economic development from the agricultural and commercial economy of the colonies to contemporary U.S. preeminence as an industrial nation. Attention will be given to the economic institution and policy with regard to political and social developments.		
Pre/ Co	NA		
Requisites			
Credits	3		
Hours	3		
Liberal Arts	[X] Yes [] No		
Course	NA		
Attribute (e.g.			
Writing Intensive,			
WAC, etc)			
General	_X_ Not Applicable		
Education	Required		
Component	English Composition		
,	Mathematics		
	Science		
	Flexible		
	World Cultures		
	US Experience in its Diversity		
	Creative Expression Individual and Society		
	Scientific World		
	05.5.1.1.10		

4. Rationale:

Cross-listing HIU 745/HIS 712 was never approved by department and should be removed.

5. Date of departmental approval: 03/14/2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF_HISTORY

CURRICULUM CHANGE

1. Type of Change: Change in cross-listing

2. **From**:

Department(s)	History
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	History
Course Prefix	HIW 748/ HIS 741
& Number	
Course Title	Europe and the Non-Western World in the Nineteenth and Twentieth Centuries
Description	(Not open to students who have taken HIW 348). Imperialism and
	colonialism in Africa and Asia, the growth of nationalism,
	decolonization, revolution, independence, and globalization.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	M. Nice Accelled
General	_X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>To</u>:

<u> </u>			
Department(s)	History		
Career	[] Undergraduate [X] Graduate		
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial		
Subject Area	History (World)		
Course Prefix & Number	HIW 748		
Course Title	Europe and the Non-Western World in the Nineteenth and Twentieth Centuries		
Description	(Not open to students who have taken HIW 348). Imperialism and colonialism in Africa and Asia, the growth of nationalism, decolonization, revolution, independence, and globalization.		
Pre/ Co Requisites	NA		
Credits	3		
Hours	3		
Liberal Arts	[X] Yes [] No		
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA		
General	_X_ Not Applicable		
Education Component	Required English Composition Mathematics Science		
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World		

4. <u>Rationale</u>: Cross-listing HIW 748/HIS 741 was never approved by department and should be removed.

5. Date of departmental approval: 03/14/2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. Type of Change: Title, description, prerequisite, credit and hour change

2. **From**:

Department(s	Middle and High School Education
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Middle and High School Education (ESC)
Course Prefix	ESC 709
& Number	
Course Title	Workshop in Pedagogy and Classroom Management
Description	Evaluating and dealing with behavioral problems in educational
	settings; theoretical study, simulation, and application of theory to
	problems.
Pre/ Co	Provisional Certification and one year of full-time teaching experience.
Requisites	
Credits	3
Hours	45
Liberal Arts	[] Yes [X] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	

General	X Not Applicable
Education	Required
Component	English Composition Mathematics Science
	Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

3. <u>To</u>:

Department(s)	Middle and High School Education	
Career	[] Undergraduate [X] Graduate	
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial	
Level		
Subject Area	Middle and High School Education (ESC)	
Course Prefix	ESC 709	
& Number		
Course Title	Methods in Adolescent Classroom Management	
Description	Organizing and managing secondary classrooms; theoretical study,	
	simulation, and application of theory to problems. Fieldwork hours	
	required.	
Pre/ Co	NA	
Requisites		
Credits	<u>1-</u> 3	
Hours	<u>1-3 hours</u>	
Liberal Arts	[] Yes [X] No	
Course	NA	
Attribute (e.g.		
Writing		
Intensive,		
WAC, etc)		
General	X Not Applicable	
Education	Required	
Component	English Composition	

Mathematics Science
Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale:

Teacher retention is a major problem in the school system. The most prevalent reason teachers quit is related to classroom management. To address this issue and better prepare our candidates, we updated this course making it more inclusive across the various content areas. Further, we also propose making the course more flexible with a variable credit/hour option. In this way, we can adapt it for traditional classroom instruction as well as offer secondary school-based rich clinical experiences in classroom management. Changing from 45 hours to 1-3 hours clarifies the actual credit hours required, which impacts the way students are billed. This does not change the actual fieldwork required per week.

5. **Date of departmental approval:** February 8, 2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: English Education M.S.Ed. Program, English

Education Advanced Certificate Program, English Education Transitional B

Hegis #: 1501, 0899

Program codes: 25803, 25816, 25802

Effective Term: Fall 2018

1. <u>Type of Change</u>: Change in Degree Requirements and Change in Credits

2. FROM:

English Education M.S.Ed. Program

This program is designed for students seeking a master's degree in English Education, grades 7-12. Upon successful completion of additional certification requirements, including specified teacher examinations, candidates will also be eligible to receive both Initial and Professional Certification to teach English in New York State in Grades 7-12. Applicants will apply to one of the 4 following sequences based on their qualifications:

Sequence 1 (30-33 crs.): Candidates already certified in English Education 7-12.

Sequence 2 (33-39 crs.): Candidates seeking initial certification in English Education 7-12 who have completed the undergraduate education minor but are not certified.

Sequence 3 (42-45 crs): Candidates who seek initial New York State certification in English Education 7-12 but who lack any coursework in education.

Sequence 4 (36 crs): Transitional B candidates who seek initial New York State certification in English Education 7-12.

English Education Admission Requirements

- Possess a bachelor's degree in English or its equivalent from an accredited college or university.
- Have earned a minimum cumulative index of 3.0 in the undergraduate record.
- If conditionally admitted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.
- For Sequence 1, present evidence of NYS teacher certification in English Education 7-12.
- For Sequence 2, present evidence of meeting core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.

- For Sequence 4 only, possess Transitional B certificate in Teaching English grades 7-12.
- Evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.
- Submit a 500-word essay outlining career goals.
- Submit two to three letters of recommendation.
- Participate in an individual interview.
- English Education Degree Requirements
- Students must consult with an adviser in the M.S Ed program in English Education before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser.
- All students will complete one of the following sequences: Sequence 1 (30-33 crs.), Sequence 2 (33-39 crs.); Sequence 3 (42-45 credits) or Sequence 4 (33 credits).

Sequence 1 (30-33 crs.):

Candidates who are already certified in English Education 7-12.

Methods of Teaching English in Middle and High School (15-18 crs):

Credits

ESC 522 Teaching English in Middle and High School 3
(Except for those who completed ESC 422 or equivalent as undergraduates.)
ESC 721 Literature for Middle and High School Students 3
ESC 723 Teaching Reading in the Content Areas 3
ESC 724 Methods of Teaching Writing in Middle and High School 3
ESC 725 Teaching English Grammar 3
ESC 730 Methods of Teaching English in Middle and High School: Selected Topics 3

ESC 522 Except for those who completed ESC 422 or equivalent as undergraduates.

English Electives (9 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

Seminar in Curriculum Theory and Development:

Credits

ESC 788 Curriculum Theory and Design 3

Master's Project (3 credits):

Credits

ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

ESC 708: Culminates in an approved curriculum project.

Sequence 2 (33-39 crs.):

Candidates seeking initial certification who have met core education requirements.

Methods of Teaching English in Middle and High School (15-18 crs):

Credits

ESC 522 Teaching English in Middle and High School 3

(Except for those who completed ESC 422 or equivalent as undergraduates.)

ESC 721	Literature for Middle and High School Students 3
ESC 723	Teaching Reading in the Content Areas 3
ESC 724	Methods of Teaching Writing in Middle and High School 3
ESC 725	Teaching English Grammar 3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics 3
ESC 522:	Except for those who completed ESC 422 or equivalent as undergraduates.

English Electives (9 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

Seminar in Curriculum Theory and Development:

Credits

ESC 788 Curriculum Theory and Design 3

Master's Project (3 credits):

Credits

ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

3

ESC 708: Culminates in an approved curriculum project.

Student Teaching or Teaching Internship (3-6 crs):

Teaching Internship

Credits

ESC 595 Internship in Classroom Teaching 1-3

Plus—

ESC 611 Teaching Internship Seminar in Secondary Education 1

or

Student Teaching

Credits

ESC 596	Student Teaching in the	Middle and High	School Grades 3
---------	-------------------------	-----------------	-----------------

Plus

ESC 612 Seminar in Secondary Student Teaching 3

Sequence 3 (42-45 credits):

Candidates with an undergraduate degree in English or the equivalent who lack education courses and who seek initial certification in English Education grades 7-12.

Core Education (15 credits):

	Credits
ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 529	Language and Literacies Acquisition in Secondary Education 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 522	Teaching English in Middle and High School 3
ESC 506 Or	the equivalent.

Methods of Teaching English in Middle and High School (9 credits):

Selected from:

	Credits
ESC 720	Reading and Reading Materials for Adolescents 3
ESC 721	Literature for Middle and High School Students 3
ESC 722	Teaching Communication Skills in the Content Areas 3
ESC 723	Teaching Reading in the Content Areas 3
ESC 724	Methods of Teaching Writing in Middle and High School 3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics 3
ESC 772	Evaluation and Assessment of Student Learning 3

English Electives (9-12 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

Seminar in Curriculum Theory and Development:

Credits

ESC 788 Curriculum Theory and Design 3

Master's Project (3 credits):

Credits

ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas 3

ESC 708: Culminates in an approved curriculum project.

Student Teaching or Teaching Internship (3-6 crs):

Teaching Internship

Credits

ESC 595 Internship in Classroom Teaching 1-3

Plus—

ESC 611 Teaching Internship Seminar in Secondary Education 1

or

Student Teaching

Credits

ESC 596 Student Teaching in the Middle and High School Grades 3

Plus

ESC 612 Seminar in Secondary Student Teaching 3

Sequence 4 (36 credits):

Teachers who hold a valid Transitional B certificate in English Education grades 7-12 from New York State.

Core Education (12 credits):

Credits

ESC 501 Psychological Foundations of Education 3

ESC 529 Language and Literacies Acquisition in Secondary Education 3

ESC 506 Special Needs Education in TESOL and Secondary Settings 3

ESC 522 Teaching English in Middle and High School 3

ESC 506: Or the equivalent.

Methods of Teaching English in Middle and High School (9 credits): Selected from:

	Credits
ESC 720	Reading and Reading Materials for Adolescents 3
ESC 721	Literature for Middle and High School Students 3
ESC 722	Teaching Communication Skills in the Content Areas 3
ESC 723	Teaching Reading in the Content Areas 3
ESC 724	Methods of Teaching Writing in Middle and High School 3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics 3
ESC 772	Evaluation and Assessment of Student Learning 3

English Electives (9 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

Master's Project (3 credits):

Credits

ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas 3

ESC 708: Culminates in an approved curriculum project.

Teaching Internship (3-credits):

Credits

ESC 595 Internship in Classroom Teaching 1-3

Plus

ESC 611 Teaching Internship Seminar in Secondary Education 1

English Education Advanced Certificate Program (24-27 Credits)

This program is designed for candidates who already have a master's degree in English or a related field and who seek New York State certification.

Students must consult with an adviser in the English Education program before starting their certificate program. During their first semester, matriculated students are required to plan their program with an English Education adviser. All students must complete the 21-24 credit curriculum below. In order to be recommended for NYS certification at the completion of the Certificate Program, candidates must pass the LAST, the CST in English, and the Written Assessment of Teaching Skills (ATS-W), and meet all additional New York State foreign language, arts, and science requirements.

English Education Advanced Certificate Program Admission Requirements

- Possess an approved bachelor's degree (or its equivalent) from an accredited college or university that meets the State requirements for a general education core in liberal arts and sciences.
- Possess a master's degree in English or a related field.
- Demonstrate the ability to successfully pursue graduate study by having a master's Grade Point Average of 3.0 or better.
- Submit two (2) letters of recommendation and a 500-word essay on career goals. Participate in an interview.
- Meet additional Departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

The 24-27 credit certificate curriculum consists of three instructional areas:

I. Foundations of Education (12 credits)

ESC 501	Psychological Foundations of Education 3	
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in Secondary Education 3	
ESC 506	Special Needs Education in TESOL and Secondary Settings 3	
ESC 506: Or	the equivalent.	

II. Methods, Curriculum, and Instruction (9 credits)

ESC 522 Teaching English in Middle and High School 3

6 additional credits to be selected in consultation with the program coordinator from the courses below:

ESC 720	Reading and Reading Materials for Adolescents 3	
ESC 721	Literature for Middle and High School Students 3	
ESC 724	Methods of Teaching Writing in Middle and High School	3

III. Practicum (3-6 credits)

ESC 595	internship in Classroom Teaching 1-3	
۸nd		

And-

ESC 611 Teaching Internship Seminar in Secondary Education 1

Or

ESC 596 Student Teaching in the Middle and High School Grades 3

And

ESC 612 Seminar in Secondary Student Teaching. 3

3. <u>TO:</u>

English Education M.S.Ed. Program

This program is designed for students seeking a master's degree in English Education, grades 7-12. Upon successful completion of additional certification requirements, including specified teacher examinations, candidates will also be eligible to receive both Initial and Professional Certification to teach English in New York State in Grades 7-12. Applicants will

apply to one of the 4 following sequences based on their qualifications:

Sequence 1 (30-33 crs.): Candidates already certified in English Education 7-12.

Sequence 2 (3<u>5</u>-39 crs.): Candidates seeking initial certification in English Education 7-12 who have completed the undergraduate education minor but are not certified.

Sequence 3 (4<u>4</u>-45 crs): Candidates who seek initial New York State certification in English Education 7-12 but who lack any coursework in education.

Sequence 4 (38 crs): Transitional B candidates who seek initial New York State certification in English Education 7-12.

English Education Admission Requirements

- Possess a bachelor's degree in English or its equivalent from an accredited college or university.
- Have earned a minimum cumulative index of 3.0 in the undergraduate record.
- If conditionally admitted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.
- For Sequence 1, present evidence of NYS teacher certification in English Education 7-12.
- For Sequence 2, present evidence of meeting core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.
- For Sequence 4 only, possess Transitional B certificate in Teaching English grades 7-12.
- Evidence of having completed a course in Special Education (ESC 463 or the equivalent).
 Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.
- Submit a 500-word essay outlining career goals.
- Submit two to three letters of recommendation.
- Participate in an individual interview.
- English Education Degree Requirements
- Students must consult with an adviser in the M.S Ed program in English Education before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser.
- All students will complete one of the following sequences: Sequence 1 (30-33 crs.),
 Sequence 2 (35-39 crs.); Sequence 3 (44-45 credits) or Sequence 4 (38 credits).

Sequence 1 (30-33 crs.):

Candidates who are already certified in English Education 7-12.

Methods of Teaching English in Middle and High School (15-18 crs):

Credits		
ESC 522	Teaching English in Middle and High School 3	
ESC 721	Literature for Middle and High School Students 3	
ESC 723	Teaching Reading in the Content Areas 3	
ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 725	Teaching English Grammar 3	

ESC 730 Methods of Teaching English in Middle and High School: Selected Topics 3 ESC 522: Except for those who completed ESC 422 or equivalent as undergraduates.

English Electives (9 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

Seminar in Curriculum Theory and Development:

Credits

ESC 788 Curriculum Theory and Design 3

Master's Project (3 credits):

Credits

ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas 3

ESC 708: Culminates in an approved curriculum project.

Sequence 2 (3<u>4</u>-39 crs.):

Candidates seeking initial certification who have met core education requirements.

Methods of Teaching English in Middle and High School (15-18 crs):

Credits

ESC 522	Teaching English in Middle and High School 3
ESC 721	Literature for Middle and High School Students 3
ESC 723	Teaching Reading in the Content Areas 3
ESC 724	Methods of Teaching Writing in Middle and High School 3
ESC 725	Teaching English Grammar 3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics 3
ESC 522: Except for those who completed ESC 422 or equivalent as undergraduates.	

English Electives (9 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

Seminar in Curriculum Theory and Development:

Credits

ESC 788 Curriculum Theory and Design 3

Master's Project (3 credits):

Credits

ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas 3

ESC 708: Culminates in an approved curriculum project.

Student Teaching or Teaching Internship (4-6 crs):

Teaching Internship

Credits

ESC 595 Internship in Classroom Teaching 1-3

Plus

ESC 612 Seminar in Secondary Student Teaching 3

or

Student Teaching

Credits

ESC 596 Student Teaching in the Middle and High School Grades 3

Plus

ESC 612 Seminar in Secondary Student Teaching 3

Sequence 3 (44-45 credits):

Candidates with an undergraduate degree in English or the equivalent who lack education courses and who seek initial certification in English Education grades 7-12.

Core Education (15 credits):

\sim		- 1	٠
(:	rڡ	a	ITS
\sim		u	เเอ

ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 529	Language and Literacies Acquisition in Secondary Education 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 522	Teaching English in Middle and High School 3
ESC FOR: Or	the equivalent

ESC 506: Or the equivalent.

Methods of Teaching English in Middle and High School (9 credits): Selected from:

	Credits
ESC 720	Reading and Reading Materials for Adolescents 3
ESC 721	Literature for Middle and High School Students 3
ESC 722	Teaching Communication Skills in the Content Areas 3
ESC 723	Teaching Reading in the Content Areas 3

ESC 723 Teaching Reading in the Content Areas 3
ESC 724 Methods of Teaching Writing in Middle and High School 3

ESC 730 Methods of Teaching English in Middle and High School: Selected Topics 3

ESC 772 Evaluation and Assessment of Student Learning 3

English Electives (9-12 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

Seminar in Curriculum Theory and Development:

Credits

ESC 788 Curriculum Theory and Design 3

Master's Project (3 credits):

Credits

ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

3

ESC 708: Culminates in an approved curriculum project.

Student Teaching or Teaching Internship (4-6 crs):

Teaching Internship

Credits

ESC 595 Internship in Classroom Teaching 1-3

Plus

ESC 612 Seminar in Secondary Student Teaching 3

or

Student Teaching

Credits

ESC 596 Student Teaching in the Middle and High School Grades 3

Plus

ESC 612 Seminar in Secondary Student Teaching 3

Sequence 4 (38 credits):

Teachers who hold a valid Transitional B certificate in English Education grades 7-12 from New York State.

Core Education (12 credits):

Credits

ESC 501	Psychological Foundations of Education 3
ESC 529	Language and Literacies Acquisition in Secondary Education 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 522	Teaching English in Middle and High School 3
ESC 506: Or the equivalent.	

Methods of Teaching English in Middle and High School (9 credits): Selected from:

Credits

ESC 720	Reading and Reading Materials for Adolescents 3
ESC 721	Literature for Middle and High School Students 3
ESC 722	Teaching Communication Skills in the Content Areas 3
ESC 723	Teaching Reading in the Content Areas 3
ESC 724	Methods of Teaching Writing in Middle and High School 3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics 3
ESC 772	Evaluation and Assessment of Student Learning 3

English Electives (9 credits):

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement.

Master's Project (3 credits):

Credits

ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

ESC 708: Culminates in an approved curriculum project.

Teaching Internship (5 credits):

_				٠.	
•	'n,	\sim	ิ	18	_
١.		-	П		

ESC 595	Internship in	Classroom	Teaching 1-3

Plus

ESC 612 Seminar in Secondary Student Teaching 3

English Education Advanced Certificate Program (26-27 Credits)

This program is designed for candidates who already have a master's degree in English or a related field and who seek New York State certification.

Students must consult with an adviser in the English Education program before starting their certificate program. During their first semester, matriculated students are required to plan their program with an English Education adviser. All students must complete the <u>26-27</u> credit curriculum below. In order to be recommended for NYS certification at the completion of the Certificate Program, candidates must pass the LAST, the CST in English, and the Written Assessment of Teaching Skills (ATS-W), and meet all additional New York State foreign language, arts, and science requirements.

English Education Advanced Certificate Program Admission Requirements

- Possess an approved bachelor's degree (or its equivalent) from an accredited college or university that meets the State requirements for a general education core in liberal arts and sciences.
- Possess a master's degree in English or a related field.
- Demonstrate the ability to successfully pursue graduate study by having a master's Grade Point Average of 3.0 or better.
- Submit two (2) letters of recommendation and a 500-word essay on career goals. Participate in an interview.
- Meet additional Departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

The 26-27 credit certificate curriculum consists of three instructional areas:

I. Foundations of Education (12 credits)

ESC 501	Psychological Foundations of Education 3	
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in Secondary Education 3	
ESC 506	Special Needs Education in TESOL and Secondary Settings 3	
ESC 506: Oi	rthe equivalent.	

II. Methods, Curriculum, and Instruction (9 credits)

ESC 522 Teaching English in Middle and High School 3

6 additional credits to be selected in consultation with the program coordinator from the courses below:

ESC 720	Reading and Reading Materials for Adolescents 3	
ESC 721	Literature for Middle and High School Students 3	
ESC 724	Methods of Teaching Writing in Middle and High School	3

III. Practicum (<u>5</u>-6 credits)

ESC 595 Internship in Classroom Teaching 1-3

And		
ESC <u>612</u>	Seminar in Secondary Student Teaching 3	
Or		
ESC 596	Student Teaching in the Middle and High School Grades	3
And		
ESC 612	Seminar in Secondary Student Teaching. 3	

4. Rationale:

Due to the extra preparation and mentorship that is needed for the edTPA, all English, Math, and Social Studies education students in particular sequences will be required to take ESC 612 -Seminar in Secondary Student Teaching (3 credits) instead of ESC 611 Teaching Internship Seminar in Secondary Education (1 cr.). This curriculum change will allow students to have additional contact time and support from the instructor.

5. Date of departmental approval: March 1, 2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award:

Mathematics Education, Middle Childhood Education (5-9) or Adolescent Education (7-12) M.S.Ed. Program, Mathematics Education Advanced Certificate,

Program Codes: 25827, 27817, 25826

Hegis #: 1701.01, 0899

Effective Term: Fall 2018

1. Type of Change: Change in Degree Requirements and Change in Credits

2. FROM:

Mathematics Education, Middle Childhood Education (5-9) or Adolescent Education (7-12) M.S.Ed. Program

The graduate program for middle and high school mathematics teachers leads to a Master of Science in Education degree. Registered with the State Education Department, this program leads to both initial and professional certification to teach mathematics in grades 5-9 or 7-12, provided all other requirements have been satisfied.

A. To be eligible for the Master's in Mathematics Education for Grades 5-9, candidates must fall into one of the following categories:

Sequence 1 (36-42 credits). For liberal arts and sciences graduates who have completed 18 credits in mathematics, including Calculus I and Calculus II, but who lack professional education coursework.

Sequence 2 (35-38 credits). For teachers who hold a Transitional B certificate in Mathematics from New York State through special CUNY and NYCDOE programs.

Admission Requirements

A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.

Mathematics course work of at least 18 credits that include Calculus I and II, with an overall index of 2.7 or better in all mathematics courses taken.

For Sequence 2, must hold a valid Transitional B Certificate from NYSED.

Submission of scores on the New York State Content Specialty Test (CST) in Mathematics. If conditionally admitted, make up requirements starting in the first semester and finishing in

no more than three consecutive semesters.

Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.

A 500 word essay on career goals.

A personal interview.

Mathematics Education, Middle Childhood Education (5-9) or Adolescent Education (7-12) Admission Requirements

A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.

For Sequence 3: Mathematics course work to include Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; with an overall index of 2.7 or better in all mathematics courses taken

For Sequence 4: Mathematics major

For Sequence 5: Mathematics major and NYS Transitional B Certificate

Submit scores on the New York State Content Specialty Test (CST) in Mathematics.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.

A 500-word essay on career goals.

A personal interview.

Middle Childhood Education Degree Requirements

Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their semester of attendance. Students must complete one of the two sequences outlined below.

Sequence 1. (1) 33 credits of prescribed course work; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Sequence 2. (1) 33 credits of prescribed course work; (2) 2 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Middle Childhood Education Overview of the Program

Sequence 1 students must successfully complete the following:

15-18 credits of Core Education courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework.

9 credits in pedagogical content in mathematics education.

12 credits in mathematics.

A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in 3 additional credits of research-related course work.

Sequence 2 (Transitional B-Grades 5-9) students must successfully complete the following:

14 credits of Core Education Courses, including 2 credits of supervised fieldwork and 3 credits of special education coursework.

9 credits in pedagogical content in mathematics education.

12 credits in mathematics.

A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in 3 additional credits of research-related course work.

Curriculum

Sequence 1 (Grades 5-9) 36-42 Credits

1	Cara	Education	Couroca	115 10	orodita)
١.	COLE	Education	Courses.	(1 0- 10	Credits)

i. Cole Lauc	ation Courses. (1 0 -10 credits)
	Credits
ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 532	Teaching Mathematics in Middle and High School 3
ESC 595	Internship in Classroom Teaching 1-3
And	
ESC 611	Teaching Internship Seminar in Secondary Education 1
Or	
ESC 596	Student Teaching in the Middle and High School Grades 3
And	
ESC 612	Seminar in Secondary Student Teaching 3
II Pedagogi	cal Content in Mathematics Education (9 credits)
n. r edagogi	Credits
ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3

III. Mathematics (12 credits)

	Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint 3
MAT 602	Introduction to Number Theory and Modern Algebra I 3
MAT 655	Exploring Mathematics Using Technology 2
MAT 661	History of Mathematics 4

IV. Culminating Experience (0-3 credits)

Credits

ESC 706	Project Seminar I 1
ESC 707	Project Seminar II 2

Or

Comprehensive Examination 0

Sequence 2 (Transitional B Sequence for Grades 5-9) 35-38 credits

I. Core Education Courses: (14 credits)

Credits

ESC 501 Psychological Foundations of Education 3

3

ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 532	Teaching Mathematics in Middle and High School 3
ESC 595	Internship in Classroom Teaching 1-3
ESC 611	Teaching Internship Seminar in Secondary Education 1

II. Pedagogical Content in Mathematics Education (9 credits)

Credits

ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3

ESC 748 Teaching Problem Solving in Mathematics in Middle and High School 3

III. Mathematics (12 credits)

Credits

MAT 601	Secondary School Mathematics from an Advanced Standpoint 3
MAT 602	Introduction to Number Theory and Modern Algebra I 3
MAT 655	Exploring Mathematics Using Technology 2
MAT 661	History of Mathematics 4

IV. Culminating Experience (0-3 credits)

Credits

ESC 706 Project Seminar I 1 ESC 707 Project Seminar II 2

Or

Comprehensive Examination 0

Middle Childhood Education Continuation Requirements

Students must maintain a 3.0 Grade Point Average throughout the course of study.

B. To be eligible for the Master's in Mathematics Education for Grades 7-12, candidates must fall into one of the following categories:

Sequence 3 (42- 48 credits). For liberal arts and sciences graduates who do not hold a bachelor's degree in mathematics but who have completed 15 credits in mathematics, including Statistics, Calculus I, Calculus II, Linear Algebra, and History of Mathematics, but who lack professional education coursework.

Sequence 4 (36-42 credits). For candidates who hold a bachelor degree in mathematics only, but who lack professional education coursework.

Sequence 5 (35-38 credits). For teachers who hold a bachelor's degree in mathematics and a Transitional B Certificate in Mathematics from New York State through special CUNY and NYCDOE programs.

Middle Childhood Education Admission Requirements

A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.

For Sequence 3: Mathematics course work to include Statistics; Calculus I; Calculus II; Linear

Algebra; and History of Mathematics; with an overall index of 2.7 or better in all mathematics courses taken;

For Sequence 4: Mathematics major;

For Sequence 5: Mathematics major AND NYS Transitional B Certificate.

Submit scores on the New York State Content Specialty Test (C.S.T.) in Mathematics.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.

A 500 word essay on career goals.

A personal interview.

Adolescent Education Degree Requirements (Grades 7-12)

Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their first semester of attendance. Students must complete one of the three sequences outlined below:

Sequence 3. (1) 39 credits of prescribed course work including 3 credits of special education coursework; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Sequence 4. (1) 33 credits of prescribed course work including 3 credits of special education coursework; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Sequence 5. (1) 33 credits of prescribed course work including 3 credits of special education coursework; (2) 2 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Adolescent Education Program Overview Sequence 3 (Grades 7-12)

Students must successfully complete the following:

15-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework.

12 credits in pedagogical content in mathematics education.

15 credits in mathematics. Students who lack History of Mathematics as a prerequisite must register for MAT 661.

A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in three additional credits of research-related course work.

Note: Students who lack full-time experience as a mathematics teacher in grades 7-12 prior to completion of the program must register for 6 credits of supervised student teaching in lieu of the 3 credits of supervised fieldwork.

Sequence 4 (Math majors who do NOT hold a NYS Transitional B Certificate, 7-12)

Students must successfully complete the following:

15-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework;

12 credits in pedagogical content in mathematics education.

9 credits in mathematics electives to be chosen in consultation with a program adviser.

A comprehensive written examination or research project is required after all course work has been completed. Students who elect to conduct a research project must enroll in three additional credits of research-related course work.

Note: Students who lack full-time experience as a mathematics teacher in grades 7-12 prior to completion of the program must register for 6 credits of supervised student teaching in lieu of the 3 credits of supervised fieldwork.

Sequence 5 (Math Majors who hold a NYS Transitional B Certificate, 7-12)

Students must successfully complete the following:

15-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework;

12 credits in pedagogical content in mathematics education.

9 credits in mathematics electives to be chosen in consultation with a program adviser. A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in three additional credits of research-related course work.

Adolescent Education Curriculum

Sequence 3 (Grades 7-12) 42- 48 credits

I. Core Education Courses (15-18 credits):

	Credits
ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 532	Teaching Mathematics in Middle and High School 3
ESC 595	Internship in Classroom Teaching 1-3
And—	Tanahina Internahin Cominar in Consular Februarian 4
ESC 611 Or	Teaching Internship Seminar in Secondary Education 1
ESC 596	Student Teaching in the Middle and High School Grades 3
And	Stadent readming in the Middle and riight school Grades 5
ESC 612	Seminar in Secondary Student Teaching 3
	Comman in Cocomany Ciacom (Cocoming C
II. Pedagogio	cal Content in Mathematics Education (12 credits):
	Credits
ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3

ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
---------	---

ESC 749 Teaching Mathematics in Grades 11 and 12 3

III. Mathematics (15 credits):

Credits

MAT 601	Secondary School Mathematics from an Advanced Standpoint 3
MAT 604	Application of the Real and Complex Number Systems 3
MAT 637	Topics in Discrete Mathematics 4

MAT 655 Exploring Mathematics Using Technology 2

Modern Algebra 4 MAT 615

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

Credits

ESC 706 Project Seminar I 1 Project Seminar II 2 ESC 707

Sequence 4 (Grades 7-12)

36-42 credits

I. Core Education Courses: (15-18 credits):

•	•	ra	М		_
ı		1 (-	()	IΤ	``

ESC 501 ESC 502 ESC 506 ESC 532	Psychological Foundations of Education 3 Historical Foundations of Education: A Multicultural Perspective 3 Special Needs Education in TESOL and Secondary Settings 3 Teaching Mathematics in Middle and High School 3
ESC 595 And—	Internship in Classroom Teaching 1-3
ESC 611 Or	Teaching Internship Seminar in Secondary Education 1

ESC 596 Student Teaching in the Middle and High School Grades 3

And

ESC 612 Seminar in Secondary Student Teaching 3

II. Pedagogical Content in Mathematics Education (12 credits):

Credits

ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
ESC 749	Teaching Mathematics in Grades 11 and 12 3

III. Mathematics (9 credits):

Three graduate electives in mathematics chosen in consultation with a program adviser;

IV. Culminating Experience (0-3 credits).

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

Credits

ESC 706	Project Seminar I 1
ESC 707	Project Seminar II 2

Sequence 5 (Math Majors who are eligible for a NYS Transitional B Certificate, 7-12) 35-38 credits

I. Core Education Courses: (14 credits):

	Ordato
ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 532	Teaching Mathematics in Middle and High School 3
ESC 595	Internship in Classroom Teaching 1-3
ESC 611	Teaching Internship Seminar in Secondary Education 1

II. Pedagogical Content in Mathematics Education (12 credits):

Credits

Credits

ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
ESC 749	Teaching Mathematics in Grades 11 and 12 3

III. Mathematics (9 credits):

Three graduate electives in mathematics chosen in consultation with a program adviser;

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

Credits

ESC 706	Project Seminar I 1
ESC 707	Project Seminar II 2

Sequence 6 (Non Math Majors who are eligible for a NYS Transitional B Certificate-Grades 7-12)

(38-41 credits)

I. Core Education Courses (11 credits):

Credits

ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 532	Teaching Mathematics in Middle and High School 3
ESC 595	Internship in Classroom Teaching 1-3

II. Pedagogical Content in Mathematics Education (12 credits):

Credits

ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
ESC 749	Teaching Mathematics in Grades 11 and 12 3

III. Mathematics (15 credits):

,	ra	~	1+0
	_	(1	Its

MAT 601	Secondary School Mathematics from an Advanced Standpoint 3
MAT 604	Application of the Real and Complex Number Systems 3
MAT 637	Topics in Discrete Mathematics 4
MAT 655	Exploring Mathematics Using Technology 2
MAT 615	Modern Algebra 4

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination.

Students who elect to write a Master's thesis must concurrently enroll in:

Credits

ESC 706	Project Seminar I 1
ESC 707	Project Seminar II 2

Extension to the New York State Initial Certificate to Teach Mathematics in Grades 5-9 (Middle Childhood Education)

Extension Program in Mathematics Education (17 credits)

This program is designed for candidates who hold New York State initial certification to teach Mathematics in grades 5-9 (Middle Childhood Education) and wish to extend their certification to include grades 7-12 (Adolescent Education).

Admission Requirements

Possess New York State initial certification to teach mathematics in grades 5-9.

Have at least two semesters of successful experience teaching mathematics in grades 7, 8, or 9; or one semester of supervised student teaching in mathematics in grades 7, 8, or 9 (with a grade of B or better).

Present coursework in Calculus I, Calculus II, Linear Algebra, Statistics, and History of Mathematics with a GPA of 3.0 or better.

Submit scores on the NYS Content Specialty (CST) Test in Mathematics.

Submit two (2) letters of recommendation, at least one of which is from a college or university instructor of mathematics.

Submit a 500-word essay on career goals.

Participate in an interview.

Meet additional departmental, divisional, and New York State requirements, if any.

If conditionally admitted, make up requirements starting in the first semester and finishing in

no more than three consecutive semesters. Continuation Requirements

Students must maintain a 3.0 grade point average throughout the course of study. Certificate Requirements

The Extension Program in Mathematics Education consists of 17 credits, as outlined below. A minimum of a B average must be maintained throughout the course of the Program. All students are to consult with an adviser in Mathematics Education before starting the Program.

Overview of the Program

Curriculum

Curriculum and Instruction (6 credits):

Credits

ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
---------	---

ESC 749 Teaching Mathematics in Grades 11 and 12 3

Mathematics Content (11 credits):

Credits

MAT 604 Application of the Real and Complex Number System	604 Application	of the Real and (Complex Numbe	r Systems 3
---	-----------------	-------------------	---------------	-------------

MAT 615 Modern Algebra 4

MAT 637 Topics in Discrete Mathematics 4

Mathematics Education Advanced Certificate (24-27 Credits)

This program is designed for candidates who hold a bachelor's degree in mathematics and a master's degree in mathematics or in an approved mathematics-related field, and who seek New York State Certification in mathematics, grades 7-12.

Advanced Certificate in Mathematics Education Admission Requirements
Candidates wishing to enter the Mathematics Education Certificate Program must meet the
following conditions as determined by the program coordinator:

Possess a bachelor's degree (or its equivalent) from an accredited college or university which meets New York State requirements for a general education core in the liberal arts and sciences. This degree shall include a mathematics major, with a minimum of 36 credits in mathematics.

Possess a master's degree in mathematics or an approved mathematics-related field. Demonstrate the ability to successfully pursue graduate study by having a master's grade point average (GPA) of 3.0 or better.

Satisfy the content requirements for New York State initial certification.

Submit scores on the NYS LAST Teacher Examination and the NYS Content Specialty Test in Mathematics (CST).

Submit two (2) letters of recommendation, at least one of which is from a college or university instructor of mathematics.

Submit a 500-word essay on career goals.

Participate in a personal interview.

Meet additional departmental, divisional, and New York State requirements, if any.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

Advanced Certificate in Mathematics Education Requirements

The Certificate Program in Mathematics Education consists of 24-27 credits, as outlined below. Students must maintain a minimum B average throughout the course of the Program. All students are to consult with an adviser in Mathematics Education before starting the Program. In order to be recommended for NYS certification at the completion of the Program, candidates must have passed the LAST, the CST in Mathematics, and the NYS Written Assessment of Teaching Skills (ATS-W); they must also meet any additional requirements set by New York State.

Advanced Certificate in Mathematics Education Curriculum

I. Foundations of Education (9)

ESC 501 Psychological Foundations of Education 3

ESC 502 Historical Foundations of Education: A Multicultural Perspective 3

ESC 506 Special Needs Education in TESOL and Secondary Settings 3

II. Curriculum and Instruction (12)

ESC 532 Teaching Mathematics in Middle and High School 3

ESC 740 Teaching Mathematics in Grades 7-10 3

Plus

Mathematics Education 6

Mathematics Education: 6 additional credits in mathematics education to be selected in consultation with the program coordinator

III. Practicum (3-6)

ESC 595 Internship in Classroom Teaching 1-3

And-

ESC 611 Teaching Internship Seminar in Secondary Education 1

Or

ESC 596 Student Teaching in the Middle and High School Grades 3

And

ESC 612 Seminar in Secondary Student Teaching 3

3. <u>TO:</u>

Mathematics Education, Middle Childhood Education (5-9) or Adolescent Education (7-12) M.S.Ed. Program

The graduate program for middle and high school mathematics teachers leads to a Master of Science in Education degree. Registered with the State Education Department, this program leads to both initial and professional certification to teach mathematics in grades 5-9 or 7-12, provided all other requirements have been satisfied.

A. To be eligible for the Master's in Mathematics Education for Grades 5-9, candidates must fall into one of the following categories:

Sequence 1 (38-42 credits). For liberal arts and sciences graduates who have completed 18 credits in mathematics, including Calculus I and Calculus II, but who lack professional education coursework.

Sequence 2 (37-38 credits). For teachers who hold a Transitional B certificate in Mathematics from New York State through special CUNY and NYCDOE programs.

Admission Requirements

A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.

Mathematics course work of at least 18 credits that include Calculus I and II, with an overall index of 2.7 or better in all mathematics courses taken.

For Sequence 2, must hold a valid Transitional B Certificate from NYSED.

Submission of scores on the New York State Content Specialty Test (CST) in Mathematics. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.

A 500 word essay on career goals.

A personal interview.

Mathematics Education, Middle Childhood Education (5-9) or Adolescent Education (7-12) Admission Requirements

A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.

For Sequence 3: Mathematics course work to include Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; with an overall index of 2.7 or better in all mathematics courses taken

For Sequence 4: Mathematics major

For Sequence 5: Mathematics major and NYS Transitional B Certificate

Submit scores on the New York State Content Specialty Test (CST) in Mathematics.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.

A 500-word essay on career goals.

A personal interview.

Middle Childhood Education Degree Requirements

Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their semester of attendance. Students must complete one of the two sequences outlined below.

Sequence 1. (1) 33 credits of prescribed course work; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Sequence 2. (1) 33 credits of prescribed course work; (2) 2 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Middle Childhood Education Overview of the Program

Sequence 1 students must successfully complete the following:

15-18 credits of Core Education courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework.

9 credits in pedagogical content in mathematics education.

12 credits in mathematics.

A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in 3 additional credits of research-related course work.

Sequence 2 (Transitional B-Grades 5-9) students must successfully complete the following:

14 credits of Core Education Courses, including 2 credits of supervised fieldwork and 3 credits of special education coursework.

9 credits in pedagogical content in mathematics education.

12 credits in mathematics.

A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in 3 additional credits of research-related course work.

Credits

Curriculum

Sequence 1 (Grades 5-9) 38-42 Credits

I. Core Education Courses: (17-18 credits)

	Croate
ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 532	Teaching Mathematics in Middle and High School 3
500 505	T 11 40
ESC 595	Internship in Classroom Teaching 1-3
And	
ESC <u>612</u>	Seminar in Secondary Student Teaching 3
Or	
ESC 596 And	Student Teaching in the Middle and High School Grades 3

ESC 612	Seminar in Secondary Student Teaching 3
II. Pedagogio	cal Content in Mathematics Education (9 credits) Credits
ESC 740 ESC 742 ESC 748	Teaching Mathematics in Grades 7-10 3 Research in Mathematics Education 3 Teaching Problem Solving in Mathematics in Middle and High School 3
III. Mathema	tics (12 credits) Credits
MAT 601 MAT 602 MAT 655 MAT 661	Secondary School Mathematics from an Advanced Standpoint 3 Introduction to Number Theory and Modern Algebra I 3 Exploring Mathematics Using Technology 2 History of Mathematics 4
IV. Culminati	ng Experience (0-3 credits) Credits
ESC 706 ESC 707 Or	Project Seminar I 1 Project Seminar II 2
Comprehens	sive Examination 0
Sequence 2	(Transitional B Sequence for Grades 5-9) 37-38 credits
I. Core Educ	ation Courses: (1 <u>6</u> credits) Credits
ESC 501 ESC 502 ESC 506 ESC 532 ESC 595 ESC 612	Psychological Foundations of Education 3 Historical Foundations of Education: A Multicultural Perspective 3 Special Needs Education in TESOL and Secondary Settings 3 Teaching Mathematics in Middle and High School 3 Internship in Classroom Teaching 1-3 Seminar in Secondary Student Teaching 3
II. Pedagogio	cal Content in Mathematics Education (9 credits) Credits
ESC 740 ESC 742 ESC 748	Teaching Mathematics in Grades 7-10 3 Research in Mathematics Education 3 Teaching Problem Solving in Mathematics in Middle and High School 3
III. Mathema Credits	tics (12 credits)
MAT 601 MAT 602 MAT 655 MAT 661	Secondary School Mathematics from an Advanced Standpoint 3 Introduction to Number Theory and Modern Algebra I 3 Exploring Mathematics Using Technology 2 History of Mathematics 4

IV. Culminating Experience (0-3 credits)

Credits

ESC 706 Project Seminar I 1 ESC 707 Project Seminar II 2

Or

Comprehensive Examination 0

Middle Childhood Education Continuation Requirements

Students must maintain a 3.0 Grade Point Average throughout the course of study.

B. To be eligible for the Master's in Mathematics Education for Grades 7-12, candidates must fall into one of the following categories:

Sequence 3 (44-48 credits). For liberal arts and sciences graduates who do not hold a bachelor's degree in mathematics but who have completed 15 credits in mathematics, including Statistics, Calculus I, Calculus II, Linear Algebra, and History of Mathematics, but who lack professional education coursework.

Sequence 4 (38-42 credits). For candidates who hold a bachelor degree in mathematics only, but who lack professional education coursework.

Sequence 5 (37-38 credits). For teachers who hold a bachelor's degree in mathematics and a Transitional B Certificate in Mathematics from New York State through special CUNY and NYCDOE programs.

Middle Childhood Education Admission Requirements

A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 2.7 or better.

For Sequence 3: Mathematics course work to include Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; with an overall index of 2.7 or better in all mathematics courses taken;

For Sequence 4: Mathematics major:

For Sequence 5: Mathematics major AND NYS Transitional B Certificate.

Submit scores on the New York State Content Specialty Test (C.S.T.) in Mathematics.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.

A 500 word essay on career goals.

A personal interview.

Adolescent Education Degree Requirements (Grades 7-12)

Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their first semester of attendance. Students must complete one of the three sequences outlined below:

Sequence 3. (1) 39 credits of prescribed course work including 3 credits of special education coursework; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Sequence 4. (1) 33 credits of prescribed course work including 3 credits of special education coursework; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR

research project (3); and (4) Maintain B average.

Sequence 5. (1) 33 credits of prescribed course work including 3 credits of special education coursework; (2) 2 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.

Adolescent Education Program Overview Sequence 3 (Grades 7-12)

Students must successfully complete the following:

1<u>7</u>-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework.

12 credits in pedagogical content in mathematics education.

15 credits in mathematics. Students who lack History of Mathematics as a prerequisite must register for MAT 661.

A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in three additional credits of research-related course work.

Note: Students who lack full-time experience as a mathematics teacher in grades 7-12 prior to completion of the program must register for 6 credits of supervised student teaching in lieu of the 3 credits of supervised fieldwork.

Sequence 4 (Math majors who do NOT hold a NYS Transitional B Certificate, 7-12)

Students must successfully complete the following:

1<u>7</u>-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework;

12 credits in pedagogical content in mathematics education.

9 credits in mathematics electives to be chosen in consultation with a program adviser.

A comprehensive written examination or research project is required after all course work has been completed. Students who elect to conduct a research project must enroll in tiree additional credits of research-related course work.

Note: Students who lack full-time experience as a mathematics teacher in grades 7-12 prior to completion of the program must register for 6 credits of supervised student teaching in lieu of the 3 credits of supervised fieldwork.

Sequence 5 (Math Majors who hold a NYS Transitional B Certificate, 7-12)

Students must successfully complete the following:

<u>16</u> credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework;

12 credits in pedagogical content in mathematics education.

9 credits in mathematics electives to be chosen in consultation with a program adviser.

A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in three additional

credits of research-related course work. Adolescent Education Curriculum

Sequence 3 (Grades 7-12) 4<u>4</u>- 48 credits

I. Core Education Courses (17-18 credits):

Credits
Psychological Foundations of Education 3
Historical Foundations of Education: A Multicultural Perspective 3
Special Needs Education in TESOL and Secondary Settings 3
Teaching Mathematics in Middle and High School 3
Internship in Classroom Teaching 1-3
Seminar in Secondary Student Teaching 3

Student Teaching in the Middle and High School Grades 3
Seminar in Secondary Student Teaching 3

II. Pedagogical Content in Mathematics Education (12 credits):

Credits

ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
ESC 749	Teaching Mathematics in Grades 11 and 12 3

III. Mathematics (15 credits):

	Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint 3
MAT 604	Application of the Real and Complex Number Systems 3
MAT 637	Topics in Discrete Mathematics 4
MAT 655	Exploring Mathematics Using Technology 2
MAT 615	Modern Algebra 4

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

Credits

ESC 706 Project Seminar I 1 Project Seminar II 2 ESC 707

Sequence 4 (Grades 7-12)

38-42 credits

I. Core Education Courses: (17-18 credits):

Credits

Croano
Psychological Foundations of Education 3
Historical Foundations of Education: A Multicultural Perspective 3
Special Needs Education in TESOL and Secondary Settings 3
Teaching Mathematics in Middle and High School 3
T 1: 40
Internship in Classroom Teaching 1-3
0
Seminar in Secondary Student Teaching 3
Student Teaching in the Middle and High School Grades 3

And

ESC 612 Seminar in Secondary Student Teaching 3

II. Pedagogical Content in Mathematics Education (12 credits):

Credits

ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
ESC 749	Teaching Mathematics in Grades 11 and 12 3

III. Mathematics (9 credits):

Three graduate electives in mathematics chosen in consultation with a program adviser;

IV. Culminating Experience (0-3 credits).

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

Credits

ESC 706	Project Seminar I 1	
ESC 707	Project Seminar II 2)

Sequence 5 (Math Majors who are eligible for a NYS Transitional B Certificate, 7-12) 3<u>7</u>-38 credits

I. Core Education Courses: (16 credits):

	Stit

ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 532	Teaching Mathematics in Middle and High School 3
ESC 595	Internship in Classroom Teaching 1-3
ESC 612	Seminar in Secondary Student Teaching 3

II. Pedagogical Content in Mathematics Education (12 credits):

Credits

ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3

ESC 748	Teaching Problem	Solving in Math	nematics in Middle	and High School 3

ESC 749 Teaching Mathematics in Grades 11 and 12 3

III. Mathematics (9 credits):

Three graduate electives in mathematics chosen in consultation with a program adviser;

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

Credits

ESC 706	Project Seminar I 1
ESC 707	Project Seminar II 2

Sequence 6 (Non Math Majors who are eligible for a NYS Transitional B Certificate-Grades 7-12)

(38- 41 credits)

I. Core Education Courses (11 credits):

Credits

ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 532	Teaching Mathematics in Middle and High School 3
ESC 595	Internship in Classroom Teaching 1-3

II. Pedagogical Content in Mathematics Education (12 credits):

Credits

ESC 740	Teaching Mathematics in Grades 7-10 3
ESC 742	Research in Mathematics Education 3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
ESC 749	Teaching Mathematics in Grades 11 and 12 3

III. Mathematics (15 credits):

Credits

	OIC COLOR	Juito
MAT 601	Secondary School Mathematics from an Advanced Standpoint 3	
MAT 604	Application of the Real and Complex Number Systems 3	
MAT 637	Topics in Discrete Mathematics 4	
MAT 655	Exploring Mathematics Using Technology 2	
MAT 615	Modern Algebra 4	

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination.

Students who elect to write a Master's thesis must concurrently enroll in:

Credits

ESC 706	Project Seminar I 1
ESC 707	Project Seminar II 2

Extension to the New York State Initial Certificate to Teach Mathematics in Grades 5-9 (Middle Childhood Education)

Extension Program in Mathematics Education (17 credits)

This program is designed for candidates who hold New York State initial certification to teach Mathematics in grades 5-9 (Middle Childhood Education) and wish to extend their certification to include grades 7-12 (Adolescent Education).

Admission Requirements

Possess New York State initial certification to teach mathematics in grades 5-9.

Have at least two semesters of successful experience teaching mathematics in grades 7, 8, or 9; or one semester of supervised student teaching in mathematics in grades 7, 8, or 9 (with a grade of B or better).

Present coursework in Calculus I, Calculus II, Linear Algebra, Statistics, and History of Mathematics with a GPA of 3.0 or better.

Submit scores on the NYS Content Specialty (CST) Test in Mathematics.

Submit two (2) letters of recommendation, at least one of which is from a college or university instructor of mathematics.

Submit a 500-word essay on career goals.

Participate in an interview.

Meet additional departmental, divisional, and New York State requirements, if any.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Continuation Requirements

Students must maintain a 3.0 grade point average throughout the course of study. Certificate Requirements

The Extension Program in Mathematics Education consists of 17 credits, as outlined below. A minimum of a B average must be maintained throughout the course of the Program. All students are to consult with an adviser in Mathematics Education before starting the Program.

Overview of the Program

Curriculum

Curriculum and Instruction (6 credits):

Credits

ESC 748	Teaching Problem Solving in Mathematics in Middle and High School 3
E00 740	The all the Madle condition to Oracles 44 and 140 0

ESC 749 Teaching Mathematics in Grades 11 and 12 3

Mathematics Content (11 credits):

Credits

MA I 604	Application of the Rea	al and Complex	Number Systems 3
----------	------------------------	----------------	------------------

MAT 615 Modern Algebra 4

MAT 637 Topics in Discrete Mathematics 4

Mathematics Education Advanced Certificate (25-27 Credits)

This program is designed for candidates who hold a bachelor's degree in mathematics and a master's degree in mathematics or in an approved mathematics-related field, and who seek New York State Certification in mathematics, grades 7-12.

Advanced Certificate in Mathematics Education Admission Requirements Candidates wishing to enter the Mathematics Education Certificate Program must meet the following conditions as determined by the program coordinator:

Possess a bachelor's degree (or its equivalent) from an accredited college or university which meets New York State requirements for a general education core in the liberal arts and sciences. This degree shall include a mathematics major, with a minimum of 36 credits in mathematics.

Possess a master's degree in mathematics or an approved mathematics-related field. Demonstrate the ability to successfully pursue graduate study by having a master's grade point average (GPA) of 3.0 or better.

Satisfy the content requirements for New York State initial certification.

Submit scores on the NYS LAST Teacher Examination and the NYS Content Specialty Test in Mathematics (CST).

Submit two (2) letters of recommendation, at least one of which is from a college or university instructor of mathematics.

Submit a 500-word essay on career goals.

Participate in a personal interview.

Meet additional departmental, divisional, and New York State requirements, if any.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

Advanced Certificate in Mathematics Education Requirements

The Certificate Program in Mathematics Education consists of 24-27 credits, as outlined below. Students must maintain a minimum B average throughout the course of the Program. All students are to consult with an adviser in Mathematics Education before starting the Program. In order to be recommended for NYS certification at the completion of the Program, candidates must have passed the LAST, the CST in Mathematics, and the NYS Written Assessment of Teaching Skills (ATS-W); they must also meet any additional requirements set by New York State.

Advanced Certificate in Mathematics Education Curriculum

I. Foundations of Education (9)

ESC 501 Psychological Foundations of Education 3

ESC 502 Historical Foundations of Education: A Multicultural Perspective 3
ESC 506 Special Needs Education in TESOL and Secondary Settings 3

II. Curriculum and Instruction (12)

ESC 532 Teaching Mathematics in Middle and High School 3

ESC 740 Teaching Mathematics in Grades 7-10 3

Plus

Mathematics Education 6

Mathematics Education: 6 additional credits in mathematics education to be selected in consultation with the program coordinator

III. Practicum (5-6)

ESC 595 Internship in Classroom Teaching 1-3

And

ESC 612 Seminar in Secondary Student Teaching 3

Or

ESC 596 Student Teaching in the Middle and High School Grades 3

And

ESC 612 Seminar in Secondary Student Teaching 3

4. Rationale:

Due to the extra preparation and mentorship that is needed for the edTPA, all English, Math, and Social Studies education students in particular sequences will be required to take ESC 612 -Seminar in Secondary Student Teaching (3 credits) instead of ESC 611 Teaching Internship Seminar in Secondary Education (1 cr.). This curriculum change will allow students to have additional contact time and support from the instructor.

5. Date of departmental approval: March 1, 2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award:

Social Studies Education M.A. Program and Social Studies Education Advanced Certificate.

Hegis Number: 2201.01 Program Codes: 25794, 27819 **Effective Term:** Fall 2018

1. <u>Type of Change</u>: Change in Degree Requirements and Change in Credits

2. FROM:

Social Studies Education M.A. Program

This program offers three sequences and is designed for candidates seeking a Master's degree in Social Studies Education, grades 7-12. Sequences 1 and 2 lead to Initial Certification for candidates looking to begin or resume an education certification progression. Sequence 3 is for candidates who already earned Initial Certification and are seeking Professional Certification.

Social Studies Education Admission Requirements:

Social Studies Education Admission Requirements:

- Possess a bachelor's degree or equivalent from an accredited college or university. The bachelor's degree can be in history, any social science, or include an undergraduate record of 30 social studies credits with a minimum of 21 of the credits in history, and the remainder from the social sciences.
- A bachelor's degree with a minimum cumulative grade point average of 3.0 in the undergraduate work.
- If conditionally accepted, must earn minimum 3.0 in courses designated by the Program Coordinator.
- If conditionally accepted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.
- For Sequence 2, present evidence of meeting core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.
- For Sequence 3, present evidence of NYS teacher certification in Social Studies Education 7-12.
- Evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.
- Candidates must schedule an interview with the Social Studies Program Coordinator that includes a transcript review.
- Two letters of recommendation.

• 500-word application essay on interest in the program as it relates to long-term career goals.

Degree Requirements

Prerequisite Content Core:

All candidates must satisfy the following prerequisite areas of study. These requirements may be met by either graduate courses or by undergraduate coursework taken prior to or after commencement of graduate study. Undergraduate transcripts will be evaluated on an individual basis as part of the admissions process. Lehman undergraduates can satisfy these requirements prior to admission in the master's program by choosing courses for their distribution requirements in the areas listed.

Anthropology

Sociology

Geography

Political science

Economics

Psychology

Two history survey courses, one in U.S. history and one in European or world history.

Sequence 1: (39-42 credits)

Candidates with an undergraduate degree in history, any of the social sciences or a 30 credit concentration in social studies who lack core education requirements and seek initial certification in Social Studies Education grades 7-12.

- Foundations Core (12 credits): ESC 501 (3), ESC 502 (3), ESC 529 (3) and ESC 506(3).
- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3).
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3) or Teaching Internship for Current Teachers-of-Record (3 credits): ESC 595 (2) and ESC 611 (1)

	Credits
ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 529	Language and Literacies Acquisition in Secondary Education3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 533	Teaching World History in Middle and High School 3
ESC 534	Teaching U.S. History and Government 3
HIW 533	World History and Historiography 3
HIU 534	U.S. History and Historiography 3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas
3	
ESC 596	Student Teaching in the Middle and High School Grades 3
ESC 612	Seminar in Secondary Student Teaching 3
ESC 595	Internship in Classroom Teaching 1-3
ESC 611	Teaching Internship Seminar in Secondary Education 1

O ... a ... 1:4.a

C = 0 d:40

Sequence 2: (30 credits)

Candidates seeking initial certification who have met foundations core requirements.

- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3).
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3)

	Credits
ESC 533	Teaching World History in Middle and High School 3
ESC 534	Teaching U.S. History and Government 3
HIW 533	World History and Historiography 3
HIU 534	U.S. History and Historiography 3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas
3	
ESC 596	Student Teaching in the Middle and High School Grades 3
ESC 612	Seminar in Secondary Student Teaching 3

Sequence 3: (30 credits)

Candidates who already hold initial certification in Social Studies Education grades 7-12 and are seeking professional certification with a humanities focus.

- Pedagogical Core (12 credits): four ESC teaching methods courses chosen in consultation with the adviser.
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)

	Credits
HIW 533	World History and Historiography 3
HIU 534	U.S. History and Historiography 3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas
3	

Additional Certification Requirements

In order to be recommended for initial certification in Social Studies Education 7-12, students must: (a) complete the master's degree with a cumulative index of 3.0 or better; (b) present passing scores on the following New York State examinations: Educating All Students (EAS), Teacher Performance Assessment (edTPA), and Social Studies CST; (c) complete the mandatory training in child abuse identification and reporting, violence prevention, and DASA, and (d) demonstrate successful completion of a liberal arts and sciences core. Please see adviser for more information.

In order to qualify for Professional Certification in Social Studies Education 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school, which serves grades 7- 12, and must meet any additional New York State requirements.

Qualified Social Studies Education 7-12 candidates may also apply to one of the following Advanced Certificates:

- (1) Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL-certified upon successful completion of that program of study or the Advanced Certificate;
- (2) Advanced Certificate: Middle Childhood Extension, Grades 5-6, and extend their certification to the lower grades; or
- (3) Advanced Certificate: Bilingual Extension, and become certified to teach social studies in the native language as well as English.

Social Studies Education Advanced Certificate (24-27 Credits)

Social Studies Education Advanced Certificate Requirements

Students must consult with an adviser in the Social Studies Education program before starting their certificate program. During their first semester, matriculated students are required to plan their program with a Social Studies Education adviser. All students must complete the 24-27-credit curriculum below. The CST examination must be passed in order to take the Social Studies teaching methods courses. In order to be recommended for certification, candidates must pass the remaining current certification examinations and complete the Social Studies Education Certificate with a 3.0 or better GPA, and meet any additional New York State requirements.

Social Studies Education Advanced Certificate Admission Requirements
Possess a bachelor's degree (or its equivalent) from an accredited college or university that
meets New York State's requirements for a general education core in liberal arts and
sciences.

Possess a master's degree in an approved social studies content area.

Have completed a minimum of 36 credits in history or in an approved social studies content area.

Submit scores on the NYS Content Specialty Test (CST) in Social Studies.

Demonstrate the ability to pursue graduate study successfully by having a master's Grade Point Average of 3.0 or better.

Submit two (2) letters of recommendation and a 500-word essay on career goals.

Participate in an interview.

Satisfy appropriate voice, speech, and health standards.

Meet additional departmental, divisional, and New York State requirements, if any.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

Advanced Certificate in Social Studies Education (24-27 Credits)

The 24-27 credit certificate curriculum consists of three instructional areas.

I.Foundations of Education (12):

ESC 501	Psychological Foundations of Education 3	
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3	

ESC 529 Language and Literacies Acquisition in Secondary Education 3

ESC 506: Or the equivalent. Requires 15 hours of field work.

ESC 501, ESC 502, ESC 529: Require 25 hours of fieldwork each.

II. Methods, Curriculum, and Instruction (9):

ESC 534 Teaching U.S. History and Government 3

Additional Credits 6

Additional Credits: 6 additional credits to be selected in consultation with the Program Coordinator.

ESC 534: ESC 534 and all other Social Studies teaching methods courses include a combined total of 25 hours of fieldwork.

III. Practicum (3-6):

ESC 595 Internship in Classroom Teaching 1-3

Or

ESC 596 Student Teaching in the Middle and High School Grades 3

ESC 595: Teaching Internship for in-service teachers and will include a weekly seminar,

ESC 611.

ESC 596: Student Teaching will be taken by pre-service teachers and will include a weekly seminar, ESC 612.

3. TO:

Social Studies Education M.A. Program

This program offers three sequences and is designed for candidates seeking a Master's degree in Social Studies Education, grades 7-12. Sequences 1 and 2 lead to Initial Certification for candidates looking to begin or resume an education certification progression. Sequence 3 is for candidates who already earned Initial Certification and are seeking Professional Certification.

Social Studies Education Admission Requirements:

Social Studies Education Admission Requirements:

- Possess a bachelor's degree or equivalent from an accredited college or university. The bachelor's degree can be in history, any social science, or include an undergraduate record of 30 social studies credits with a minimum of 21 of the credits in history, and the remainder from the social sciences.
- A bachelor's degree with a minimum cumulative grade point average of 3.0 in the undergraduate work.
- If conditionally accepted, must earn minimum 3.0 in courses designated by the Program Coordinator.
- If conditionally accepted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.
- For Sequence 2, present evidence of meeting core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.

- For Sequence 3, present evidence of NYS teacher certification in Social Studies Education 7-12.
- Evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.
- Candidates must schedule an interview with the Social Studies Program Coordinator that includes a transcript review.
- Two letters of recommendation.
- 500-word application essay on interest in the program as it relates to long-term career goals.

Degree Requirements

Prerequisite Content Core:

All candidates must satisfy the following prerequisite areas of study. These requirements may be met by either graduate courses or by undergraduate coursework taken prior to or after commencement of graduate study. Undergraduate transcripts will be evaluated on an individual basis as part of the admissions process. Lehman undergraduates can satisfy these requirements prior to admission in the master's program by choosing courses for their distribution requirements in the areas listed.

Anthropology

Sociology

Geography

Political science

Economics

Psychology

Two history survey courses, one in U.S. history and one in European or world history.

Sequence 1: (41-42 credits)

Candidates with an undergraduate degree in history, any of the social sciences or a 30 credit concentration in social studies who lack core education requirements and seek initial certification in Social Studies Education grades 7-12.

- Foundations Core (12 credits): ESC 501 (3), ESC 502 (3), ESC 529 (3) and ESC 506(3).
- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3).
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3) or Teaching Internship for Current Teachers-of-Record (5 credits): ESC 595 (2) and ESC 612 (3)

_			
,	-	~I:	+~
١.	10	(11	15

ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 529	Language and Literacies Acquisition in Secondary Education 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 533	Teaching World History in Middle and High School 3
ESC 534	Teaching U.S. History and Government 3
HIW 533	World History and Historiography 3

HIU 534	U.S. History and Historiography 3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas
3	
ESC 596	Student Teaching in the Middle and High School Grades 3
ESC 612	Seminar in Secondary Student Teaching 3
ESC 595	Internship in Classroom Teaching 1-3
ESC 612	Seminar in Secondary Student Teaching 3
	 -

Sequence 2: (30 credits)

Candidates seeking initial certification who have met foundations core requirements.

- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3).
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3)

	Credits
ESC 533	Teaching World History in Middle and High School 3
ESC 534	Teaching U.S. History and Government 3
HIW 533	World History and Historiography 3
HIU 534	U.S. History and Historiography 3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas
3	
ESC 596	Student Teaching in the Middle and High School Grades 3
ESC 612	Seminar in Secondary Student Teaching 3

Sequence 3: (30 credits)

Candidates who already hold initial certification in Social Studies Education grades 7-12 and are seeking professional certification with a humanities focus.

- Pedagogical Core (12 credits): four ESC teaching methods courses chosen in consultation with the adviser.
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)

	Credits
HIW 533	World History and Historiography 3
HIU 534	U.S. History and Historiography 3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas
3	

Additional Certification Requirements

In order to be recommended for initial certification in Social Studies Education 7-12, students must: (a) complete the master's degree with a cumulative index of 3.0 or better; (b) present passing scores on the following New York State examinations: Educating All Students (EAS), Teacher Performance Assessment (edTPA), and Social Studies CST; (c) complete the mandatory training in child abuse identification and reporting, violence prevention, and DASA, and (d) demonstrate successful completion of a liberal arts and sciences core. Please see

adviser for more information.

In order to qualify for Professional Certification in Social Studies Education 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school, which serves grades 7- 12, and must meet any additional New York State requirements.

Qualified Social Studies Education 7-12 candidates may also apply to one of the following Advanced Certificates:

- (1) Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL-certified upon successful completion of that program of study or the Advanced Certificate;
- (2) Advanced Certificate: Middle Childhood Extension, Grades 5-6, and extend their certification to the lower grades; or
- (3) Advanced Certificate: Bilingual Extension, and become certified to teach social studies in the native language as well as English.

Social Studies Education Advanced Certificate (26-27 Credits)

Social Studies Education Advanced Certificate Requirements

Students must consult with an adviser in the Social Studies Education program before starting their certificate program. During their first semester, matriculated students are required to plan their program with a Social Studies Education adviser. All students must complete the 24-27-credit curriculum below. The CST examination must be passed in order to take the Social Studies teaching methods courses. In order to be recommended for certification, candidates must pass the remaining current certification examinations and complete the Social Studies Education Certificate with a 3.0 or better GPA, and meet any additional New York State requirements.

Social Studies Education Advanced Certificate Admission Requirements

Possess a bachelor's degree (or its equivalent) from an accredited college or university that meets New York State's requirements for a general education core in liberal arts and sciences.

Possess a master's degree in an approved social studies content area.

Have completed a minimum of 36 credits in history or in an approved social studies content area.

Submit scores on the NYS Content Specialty Test (CST) in Social Studies.

Demonstrate the ability to pursue graduate study successfully by having a master's Grade Point Average of 3.0 or better.

Submit two (2) letters of recommendation and a 500-word essay on career goals.

Participate in an interview.

Satisfy appropriate voice, speech, and health standards.

Meet additional departmental, divisional, and New York State requirements, if any.

If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

Advanced Certificate in Social Studies Education (26-27 Credits)

The 26-27 credit certificate curriculum consists of three instructional areas.

I. Foundations of Education (12):

ESC 501	Psychological Foundations of Education 3
ESC 502	Historical Foundations of Education: A Multicultural Perspective 3
ESC 506	Special Needs Education in TESOL and Secondary Settings 3
ESC 529	Language and Literacies Acquisition in Secondary Education 3
ESC 506: Or	the equivalent. Requires 15 hours of field work.

ESC 501, ESC 502, ESC 529: Require 25 hours of fieldwork each.

II. Methods, Curriculum, and Instruction (9):

ESC 534 Teaching U.S. History and Government 3

Additional Credits 6

Additional Credits: 6 additional credits to be selected in consultation with the Program Coordinator.

ESC 534: ESC 534 and all other Social Studies teaching methods courses include a combined total of 25 hours of fieldwork.

III. Practicum (5-6):

ESC 595 Internship in Classroom Teaching 1-3

Or

ESC 596 Student Teaching in the Middle and High School Grades 3

ESC 595: Teaching Internship for in-service teachers will include a weekly seminar, <u>ESC</u> 612: Seminar in Secondary Student Teaching 3

ESC 596: Student Teaching will be taken by pre-service teachers and will include a weekly seminar, <u>ESC 612: Seminar in Secondary Student Teaching 3</u>

4. Rationale:

Due to the extra preparation and mentorship that is needed for the edTPA, all English, Math, and Social Studies education students in particular sequences will be required to take ESC 612 -Seminar in Secondary Student Teaching (3 credits) instead of ESC 611 Teaching Internship Seminar in Secondary Education (1 cr.). This curriculum change will allow students to have additional contact time and support from the instructor.

5. Date of departmental approval: March 1, 2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Masters of Science in Secondary Science Education.

Science Education Sequence 2

Hegis Number: 0834.00 Program Code: 25791 Effective Term: Fall 2018

1. Type of Change: Change in Degree Requirements and Change in Credits

2. From:

Science Education M.S.Ed. Program

This program leads to a master's degree in Science Education. Upon completion of additional requirements, candidates will be eligible to receive New York State Initial Certification to teach one or more of the following sciences at the level of adolescent education (Grades 7-12): biology, chemistry, earth science, general science, and physics.

To be eligible for the Science Education Master's Program, potential students must fall into one of the following categories:

Sequence 1: For candidates who have, or are eligible for, Initial Certification in subjects other than science and who seek certification as science teachers.

Sequence 2: For candidates who have completed at least 36 credits in biology, chemistry, geology, or physics, but who lack professional education coursework and who seek Initial Certification.

Sequence 3: For candidates who hold a valid Transitional B certificate in biology, chemistry, earth science, general science, or physics, Grades 7-12, from New York State.

Science Education Admission Requirements

- 1. Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
- 2. Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
- Submission of scores on the Content Specialty Test (CST).
- 4. For Sequence 1 admission: An undergraduate science major or the equivalent and a minor in middle and high school education or the equivalent.
- 5. For Sequence 2 and 3 admission: At least 36 credits in biology, chemistry, geology, or physics. Matriculants may be asked to complete undergraduate and/or graduate

prerequisite coursework in addition to degree requirements, based on the evaluation of their credentials by an adviser in the Science Education Program.

- 6. Satisfy appropriate voice, speech, and health standards.
- 7. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
- 8. Personal interview.

Science Education Degree Requirements

Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program. Students must complete one of the three sequences outlined below.

Curriculum

The curriculum for each sequence is distributed in four instructional modules as follows:

Sequence 2 (39-48 credits)

Core Education Sequence (15-18 credits):

ESC 501 ESC 502	Psychological Foundations of Education Historical Foundations of Education: A Multicultural Perspective	3cr. 3cr.
ESC 519	Teaching Science in Middle and High School	3cr.
ESC 529	Language and Literacies Acquisition in Secondary Education And	3cr.
ESC 595	Internship in Classroom Teaching	1- 3cr.
	And	
ESC 611	Teaching Internship Seminar in Secondary Education Or	3cr.
ESC 596	Student Teaching in the Middle and High School Grades And	3cr.
ESC 612	Seminar in Secondary Student Teaching.	3cr.
Curriculum and Instruction (12 credits):		
ESC 506 ESC 755	Special Needs Education in TESOL and Secondary Settings Teaching the Historical Development of Science	3cr. 3cr.

ESC 767	The Museum as a Resource for Teaching Science	3cr.
ESC 770	Methods of Teaching Science in Secondary Schools:	1cr.
	Selected Topics	

ESC 767 or Equivalent

Research and Culmination Projects (6 credits):

ESC 705	Method of Educational Research	3cr.
ESC 706	Project Seminar I	1cr.
ESC 707	Project Seminar II	2cr.
	or	
ESC 705	Method of Educational Research	3cr.
	And	
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in	3cr.
	Specialized Areas	

Graduate Science Content (6-12 credits):

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

Biology

BIO 501	Topics in Genetics.	4cr.
BIO 502	Topics in Economic Botany	4cr.
BIO 618	Problems in Ecology	4cr.

Chemistry

CHE 545	Advanced Inorganic Chemistry	3cr.
CHE 544	Biochemistry	3cr.
CHE 548	Special Topics in Modern Organic Chemistry	3cr.

Geology:

GEO 501	Earth Processes	3cr.
GEO 502	Earth History	3cr.
GEO 503	Geologic Field Methods	3cr.
AST 601	Astronomy of Solar Systems	4cr.

Physics:

PHY 601	Advanced General Physics	3cr.
PHY 605	Physics for Teachers	4cr.
AST 601	Astronomy of Solar Systems	4cr.
AST 602	Stellar Astronomy	4cr.

3. **To**:

Science Education M.S.Ed. Program

This program leads to a master's degree in Science Education. Upon completion of additional requirements, candidates will be eligible to receive New York State Initial Certification to teach one or more of the following sciences at the level of adolescent education (Grades 7-12): biology, chemistry, earth science, general science, and physics.

To be eligible for the Science Education Master's Program, potential students must fall into one of the following categories:

Sequence 1: For candidates who have, or are eligible for, Initial Certification in subjects other than science and who seek certification as science teachers.

Sequence 2: For candidates who have completed at least 36 credits in biology, chemistry, geology, or physics, but who lack professional education coursework and who seek Initial Certification.

Sequence 3: For candidates who hold a valid Transitional B certificate in biology, chemistry, earth science, general science, or physics, Grades 7-12, from New York State.

Science Education Admission Requirements

- 1. Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
- 2. Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
- 3. Submission of scores on the Content Specialty Test (CST).
- 4. For Sequence 1 admission: An undergraduate science major or the equivalent and a minor in middle and high school education or the equivalent.
- 5. For Sequence 2 and 3 admission: At least 36 credits in biology, chemistry, geology, or physics. Matriculants may be asked to complete undergraduate and/or graduate prerequisite coursework in addition to degree requirements, based on the evaluation of their credentials by an adviser in the Science Education Program.
- 6. Satisfy appropriate voice, speech, and health standards.
- 7. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
- 8. Personal interview.

Science Education Degree Requirements

Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program. Students must complete one of the three sequences outlined below.

Curriculum

The curriculum for each sequence is distributed in four instructional modules as follows:

Sequence 2 (42-48 credits)

Core Education Sequence (18 credits):

ESC 501	Psychological Foundations of Education	3cr.
ESC 502	Historical Foundations of Education: A Multicultural	3cr.
	Perspective	
ESC 519	Teaching Science in Middle and High School	3cr.
ESC 529	Language and Literacies Acquisition in Secondary Education	3cr.
ESC 596	Student Teaching in the Middle and High School Grades	3cr.
ESC 612	Seminar in Secondary Student Teaching	3cr.

Curriculum and Instruction (12 credits):

ESC 506	Special Needs Education in TESOL and Secondary Settings	3cr.
ESC 755	Teaching the Historical Development of Science	3cr.
ESC 767	The Museum as a Resource for Teaching Science	3cr.
ESC 770	Methods of Teaching Science in Secondary Schools:	1cr.
	Selected Topics	

Research and Culmination Projects (6 credits):

ESC 705	Method of Educational Research	3cr.
ESC 706	Project Seminar I	1cr.
ESC 707	Project Seminar II	2cr.
	or	
ESC 705	Method of Educational Research	3cr.
	And	
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in	3cr.
	Specialized Areas	

Graduate Science Content (6-12 credits):

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

Biology

BIO 501	Topics in Genetics.	4cr.
BIO 502	Topics in Economic Botany	4cr.
BIO 618	Problems in Ecology	4cr.

Chemistry

CHE 545	Advanced Inorganic Chemistry	3cr.
CHE 544	Biochemistry	3cr.
CHE 548	Special Topics in Modern Organic Chemistry	3cr.

Geology:

GEO 501	Earth Processes	3cr.
GEO 502	Earth History	3cr.
GEO 503	Geologic Field Methods	3cr.
AST 601	Astronomy of Solar Systems	4cr.

Physics:

PHY 601	Advanced General Physics	3cr.
PHY 605	Physics for Teachers	4cr.
AST 601	Astronomy of Solar Systems	4cr.
AST 602	Stellar Astronomy	4cr.

4. Rationale:

Due to the extra preparation and mentorship that is needed for the edTPA, all science education students in sequence 2 will be required to take ESC 596 - Student Teaching in Middle and High School Grades (3 credits), and ESC 612 -Seminar in Secondary Student Teaching (3 credits) instead of ESC 595 - Internship in Student Teaching, and ESC 611 - Teaching Internship Seminar in Secondary Education (1 credit). This curriculum change will allow students to have additional contact time and support from the instructor.

5. Date of departmental approval: March 1, 2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MIDDLE & HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Masters of Science in Secondary Science Education,

Science Education Sequence 3 (Trans B Sequence)

Hegis Number: 0899.50 Program Code: 25790 Effective Term: Fall 2018

1. Type of Change: Change in Degree Requirements and Change in Credits

2. From:

Science Education M.S.Ed. Program

This program leads to a master's degree in Science Education. Upon completion of additional requirements, candidates will be eligible to receive New York State Initial Certification to teach one or more of the following sciences at the level of adolescent education (Grades 7-12): biology, chemistry, earth science, general science, and physics.

To be eligible for the Science Education Master's Program, potential students must fall into one of the following categories:

Sequence 1: For candidates who have, or are eligible for, Initial Certification in subjects other than science and who seek certification as science teachers.

Sequence 2: For candidates who have completed at least 36 credits in biology, chemistry, geology, or physics, but who lack professional education coursework and who seek Initial Certification.

Sequence 3: For candidates who hold a valid Transitional B certificate in biology, chemistry, earth science, general science, or physics, Grades 7-12, from New York State.

Science Education Admission Requirements

- Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
- Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
- Submission of scores on the Content Specialty Test (CST).
- For Sequence 1 admission: An undergraduate science major or the equivalent and a minor in middle and high school education or the equivalent.

- For Sequence 2 and 3 admission: At least 36 credits in biology, chemistry, geology, or physics. Matriculants may be asked to complete undergraduate and/or graduate prerequisite coursework in addition to degree requirements, based on the evaluation of their credentials by an adviser in the Science Education Program.
- Satisfy appropriate voice, speech, and health standards.
- Submit two letters of recommendation, at least one of which is from a college or university science instructor.
- Personal interview.

Science Education Degree Requirements

Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program. Students must complete one of the three sequences outlined below.

Curriculum

The curriculum for each sequence is distributed in four instructional modules as follows:

Sequence 3 (34-36 credits)

Core Education Sequence (10 credits):

ESC 501	Psychological Foundations of Education	3 cr.
ESC 502	Historical Foundations of Education: A Multicultural	3 cr.
	Perspective	
ESC 519	Teaching Science in Middle and High School	3 cr.
ESC 789	Independent Study in Curriculum Development	1 cr.

Curriculum and Instruction (12 credits):

ESC 506	Special Needs Education in TESOL and Secondary Settings	3 cr.
ESC 536	Teaching Technology Subjects in Middle and High School	3 cr.
ESC 767	The Museum as a Resource for Teaching Science	3 cr.
ESC 770	Methods of Teaching Science in Secondary Schools:	1 cr.
	Selected Topics	

ESC 767 or Equivalent

Research and Culmination Projects (6 credits):

ESC 705	Method of Educational Research	3 cr.
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in	3 cr.
	Specialized Areas	

Graduate Science Content (6-8 credits):

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

Biology

BIO 618	Problems in Ecology	4 cr.
BIO 611	Problems in Microbiology	3 cr.
BIO 612	Plant Growth and Development	4 cr.

Chemistry

CHE 545	Advanced Inorganic Chemistry	3 cr.
CHE 544	Biochemistry	3 cr.
CHE 548	Special Topics in Modern Organic Chemistry	3 cr.

Geology:

GEO 501	Earth Processes	3 cr.
GEO 502	Earth History	3 cr.
GEO 503	Geologic Field Methods	3 cr.
Division		

Physics:

PHY 601	Advanced General Physics	3 cr.
AST 601	Astronomy of Solar Systems	4 cr.
AST 602	Stellar Astronomy	4 cr.

General Science:

BIO 618	Problems in Ecology	4 cr.
CHE 542	Advanced Inorganic Chemistry	3 cr.
GEO 501	Earth Processes	3 cr.
PHY 601	Advanced General Physics	3 cr.

3. **To**:

Science Education M.S.Ed. Program

This program leads to a master's degree in Science Education. Upon completion of additional requirements, candidates will be eligible to receive New York State Initial Certification to teach one or more of the following sciences at the level of adolescent education (Grades 7-12): biology, chemistry, earth science, general science, and physics.

To be eligible for the Science Education Master's Program, potential students must fall into one of the following categories:

Sequence 1: For candidates who have, or are eligible for, Initial Certification in subjects other than science and who seek certification as science teachers.

Sequence 2: For candidates who have completed at least 36 credits in biology, chemistry, geology, or physics, but who lack professional education coursework and who seek Initial Certification.

Sequence 3: For candidates who hold a valid Transitional B certificate in biology, chemistry, earth science, general science, or physics, Grades 7-12, from New York State.

Science Education Admission Requirements

- 9. Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
- 10. Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
- 11. Submission of scores on the Content Specialty Test (CST).
- 12. For Sequence 1 admission: An undergraduate science major or the equivalent and a minor in middle and high school education or the equivalent.
- 13. For Sequence 2 and 3 admission: At least 36 credits in biology, chemistry, geology, or physics. Matriculants may be asked to complete undergraduate and/or graduate prerequisite coursework in addition to degree requirements, based on the evaluation of their credentials by an adviser in the Science Education Program.
- 14. Satisfy appropriate voice, speech, and health standards.
- 15. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
- 16. Personal interview.

Science Education Degree Requirements

Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program. Students must complete one of the three sequences outlined below.

Curriculum

The curriculum for each sequence is distributed in four instructional modules as follows:

Sequence 3 (34-36 credits)

Core Education Sequence (13 credits):

ESC 501 ESC 502	Psychological Foundations of Education Historical Foundations of Education: A Multicultural Perspective	3 cr. 3 cr.
ESC 519 ESC 789 ESC 612	Teaching Science in Middle and High School Independent Study in Curriculum Development Seminar in Secondary Student Teaching	3 cr. 1 cr. <u>3 cr.</u>

Curriculum and Instruction (12 credits):

ESC 506	Special Needs Education in TESOL and Secondary Settings	3 cr.
ESC 536	Teaching Technology Subjects in Middle and High School	3 cr.
ESC 767	The Museum as a Resource for Teaching Science	3 cr.
ESC 770	Methods of Teaching Science in Secondary Schools:	1 cr.
	Selected Topics	

ESC 767 or Equivalent

Research and Culmination Projects (3 credits):

ESC 705 Method of Educational Research 3 cr.

Graduate Science Content (6-8 credits):

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

Biology

BIO 618 Problems in Ecology 4 cr.

BIO 618	Problems in Ecology	4 cr.
CHE 542	Advanced Inorganic Chemistry	3 cr.
GEO 501	Earth Processes	3 cr.
PHY 601	Advanced General Physics	3 cr.

4. Rationale:

Due to the extra preparation and mentorship that is needed for the edTPA, all science education students in sequence 3 will be required to take ESC 612 -Seminar in Secondary Student Teaching (3 credits) instead of ESC 708 Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas. This curriculum change will allow students to have additional contact time and support from the instructor.

5. Date of departmental approval: March 1, 2018

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MUSIC, MULTIMEDIA, THEATRE, AND DANCE

CURRICULUM CHANGE

1. **Type of change:** Experimental Course

2.

Department(s)	Music, Multimedia, Theatre, and Dance
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental []
Level	Remedial
Subject Area	Dance
Course Prefix	DNC 750
& Number	
Course Title	Topics in Dance
Description	Study of various topics in Dance. (For specific topics and
	sections each semester, consult the Department.) (May be
	repeated for a maximum of six credits.)
Pre/ Co	Departmental Approval
Requisites	
Credits	3 (maximum 6 credits)
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V Not Applicable
General	X Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

This course can be used by students in the MA program in Liberal Studies (MALS) as an equivalent to graduate-level courses in Dance taken by epermit at other CUNY campuses. The Dance program anticipates opening small sections of this course to meet with some upper-level courses, which will enable MALS students to learn from the Lehman instructor in the course and perform additional work in order to meet the standards of a 700-level course. Such courses may include DNC 345 (Choreography and Improvisation), and DNC 420 (History and Applied Principles of Contemporary Dance).

4. <u>Learning Outcomes</u> (By the end of the course students will be expected to):

- Demonstrate critical thinking about dance from historical, global, and diverse perspectives
- Analyze dance in its historical and global context through written work and presentations
- Produce examples of professional writing
- 5. Date of Departmental Approval: 04/11/18

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MUSIC, MULTIMEDIA, THEATRE, AND DANCE

CURRICULUM CHANGE

1. **Type of change:** Experimental Course

2.

Department(s)	Music, Multimedia, Theatre, and Dance
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental []
Level	Remedial
Subject Area	Theatre
Course Prefix	THE 750
& Number	
Course Title	Topics in Theatre
Description	Study of various topics in Theatre. (For specific topics and
	sections each semester, consult the Department.) (May be
D / O	repeated for a maximum of six credits.)
Pre/ Co	Departmental Approval
Requisites	
Credits	3 (maximum 6 credits)
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V N (A P II
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

This course can be used by students in the MA program in Liberal Studies (MALS) as an equivalent to graduate-level courses in Theatre taken by epermit at other CUNY campuses. The Theatre program anticipates opening small sections of this course to meet with some 300-level courses, which will enable MALS students to learn from the Lehman instructor in the course and perform additional work in order to meet the standards of a 700-level course. Such courses include THE 308 (Playwriting), and THE 326 and 327 (History of the Theatre I and II) THE 435 Advanced Acting: Shakespeare and Company.

4. <u>Learning Outcomes</u> (By the end of the course students will be expected to):

- Demonstrate critical thinking about theatrical text and production from historical, global, and diverse perspectives
- Indicate through writing and visual presentations an understanding of the development of drama and theatre in human societies and cultures
- Analyze in writing play scripts from different periods, genres, and styles for theatrical production
- 5. <u>Date of Departmental Approval</u>: 04/11/18

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF SPEECH-LANGUAGE-HEARING SCIENCES

CURRICULUM CHANGE

1. Type of Change: Course hours

2. **From**:

Department(s)	Speech-Language-Hearing Sciences
Career	[] Undergraduate [X] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Speech Language Pathology
Course Prefix	
& Number	SPE 719
Course Title	Audiology for the Speech-Language Pathologist
Description	Audiological assessment and (re)habilitation of children and adults with hearing loss for the speechlanguage pathologist. Course content includes auditory skills development, communication and listening skills impacted by hearing loss, auditory processing disorders, hearing screening across the lifespan and sound enhancement systems. Students will learn to conduct hearing screenings.
Pre/ Co	NA
Requisites	
Credits	4
Hours	4
Liberal Arts	[] Yes [X] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General	X_ Not Applicable
Education Component	Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

3. **To:**

Department(s)	Speech-Language-Hearing Sciences
Career	[] Undergraduate [X] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Speech-Language Pathology
Course Prefix	SPE 719
& Number	
Course Title	Audiology for the Speech-Language Pathologist
Description	Audiological assessment and (re)habilitation of children and adults with hearing loss for the speechlanguage pathologist. Course content includes auditory skills development, communication and listening skills impacted by hearing loss, auditory processing disorders, hearing screening across the lifespan and sound enhancement systems. Students will learn to conduct hearing screenings.
Pre/ Co	NA
Requisites	
Credits	4
Hours	<u>5</u>
Liberal Arts	[] Yes [X] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	Norld Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. Rationale:

The change in the number of hours will enhance training of graduate students in hearing screenings and hearing conservation and will provide adequate time for students to have hands-on experience with hearing screenings, hearing testing, and aural

rehabilitation in the Bronx schools, in-house clinic, and medical facilities associated with Lehman. These enhanced clinical experiences will also contribute towards their 400 clinical hours required for certification with the American-Speech-Language-Hearing Association, as well as state license.

5. Date of departmental approval: 2/9/2018

Senate Meeting - May 9, 2018

Undergraduate Curriculum Committee (UCC) Report

The following proposals were approved unanimously by the UCC, with a quorum present on April 18, 2018 (7 of 10 members in attendance):

A quorum was present (7 of 10 members present). All votes taken were unanimous.

- 1. Art
- Change pre- co-req ART/CGI 221
- New course ART/CGI 331
- New course ART/CGI 332
- 2. Mathematics
 - New course MAT 103
 - Change title MAT 171
 - Change pre-req MAT 175
- 3. Music, Multimedia, Theatre & Dance
 - Change title, desc, pre-req, cl THE 309
 - Change title, desc, pre-req, cl THE 409

Informational Item:

- 1. Latin American and Caribbean Studies
 - Experimental course LAC (LTS) 270

Next meeting: May 9, 2018, 1 p.m., SC 1405A

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF ART

CURRICULUM CHANGE

1. Type of Change: Change in pre-requisite and elimination of co-requisite

2. **From**:

Department(s)	Art
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	ART / CGI
Course Prefix	ART 221 / CGI 221
& Number	
Course Title	Applied Imaging and Applications to the World Wide Web 1
Description	Concepts and techniques underlying the World Wide Web. Image processing and two dimensional graphics as methods to produce material for the World Wide Web. Emphasis on the artistic, mathematical and computer science underpinnings of these topics.
Pre/ Co	PREREQ: An introductory hands-on microcomputer course.
Requisites	COREQ: ART 108
Credits	3
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity Creative Expression
	Creative Expression Individual and Society
	Scientific World

3. **To**:

Department(s)	Art
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	ART / CGI
Course Prefix	ART 221 / CGI 221
& Number	
Course Title	Applied Imaging and Applications to the World Wide Web 1
Description	Concepts and techniques underlying the World Wide Web. Image processing and two dimensional graphics as methods to produce material for the World Wide Web. Emphasis on the artistic,
	mathematical and computer science underpinnings of these topics.
Pre/ Co	PREREQ: ART 112
Requisites	· · · · · · · · · · · · · · · · · · ·
Credits	3
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V NI / A P II
General	X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World
1	

4. Rationale:

Prior to the ubiquity of computers, images were generated using photography. It is no longer necessary to generate images solely or mainly by photography in order to produce web-based content. Having students enroll simultaneously in ART 108 Introduction to Photography while taking ART221 is an unnecessary co-requisite

because of the changed nature of web-based image making. Formalizing the prerequisite to include the Art Dept foundation class (ART112: Introduction to Digital Imaging) will ensure that students are equipped for the class.

5. Date of departmental approval: March 14, 2018

DEPARTMENT OF ART

CURRICULUM CHANGE

1. Type of change: New Course

2.

Department(s)	Art
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	ART/CGI
Course Prefix	ART 331 / CGI 331
& Number	
Course Title	Digital Media Production: Theory and Practice
Description	Concepts and techniques underlying the theory of transmedia
	storytelling. Hands-on development of the core technical skills related
	to the creation and distribution of digital content.
Pre/ Co	
Requisites	
Credits	3 (may be repeated twice)
Hours	4 (2 lecture, 2 lab)
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	Nice Acceptable
General	x_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

Over the past several years, this course has been running as ART/CGI 350 (Variable Topics in Studio Art), with students consistently drawn from Lehman and Macaulay Honors College. This course update would assign a unique number to the class and would make enrollment possible for students who have already taken another section of ART/CGI 350.

Like the current version of the class, this updated course would provide the opportunity for real-world, experiential learning. Students would learn the fundamentals of creating transmedia stories: the art and theory of advancing narratives on a variety of media platforms. These skills could be applied to marketing campaigns for products, businesses, social causes, cultural outreach, fine art projects or personal entrepreneurship. Seminars would focus on key topics in digital content creation (including branding, marketing, analytics), and guest speakers would include creative leaders from relevant disciplines. In addition to the seminars, hands-on workshops would cover core technical skills related to the creation of interactive digital content (print and web design, video and audio production, creative writing, immersive media). For the final project, students would create an original campaign (on several media platforms) that would include a detailed proposal for developing the brand and building the community of a real-world organization.

This course would also become part of a sequence that would serve to create dynamic connections between Lehman students, Macaulay students, Hostos students, and the larger CUNY community. The course would be the third class in a proposed digital storytelling course sequence that's outlined in the CUNY 2020 grant proposal. In the beginning of the sequence, Lehman, Hostos, and Macaulay students would meet as a cohort and learn the fundamentals of digital design and video production. One goal of the sequence is to create a pipeline that encourages Hostos students to move on to Lehman: Hostos students could take the first two semesters of the sequence, enroll at Lehman, and then take the third and fourth semesters as Lehman students. Graduates of the course sequence would also become eligible to participate in the Hostos incubator and would have access to career-related resources through Macaulay.

The course would also be an opportunity for students to forge connections with professionals in a variety of fields, leading to a greater familiarity with these fields, access to internships, and possible career opportunities.

Note: The course would have a new group of visiting speakers each semester, and repeating students would be exposed to a whole new range of perspectives on branding, marketing, analytics, and media production. Also, the core class project (a creative branding campaign) would have a new theme and direction each semester, and repeating students would have the opportunity to work with a whole new set of ideas and creative challenges.

4. <u>Learning Outcomes (By the end of the course students will be expected to)</u>: Students will:

- Learn the practices, techniques, history and aesthetic elements of transmedia storytelling and marketing through a series of lectures, demonstrations, assignments, selected readings, writings and critiques
- Build an in depth understanding of branding for corporations, institutions, people and social concerns and articulate the differences of each approach
- Compare and contrast contemporary campaigns with their historical antecedents
- Develop skills in project conceptualization and community building
- Develop a creative and unconventional approach to step-by-step problem-solving
- Use formal and conceptual strategies to develop projects that demonstrate innovative ideas and creative thinking
- Select media appropriate to concepts and forms
- Apply elements of design to the creation of digital content (video, web, apps) and content for print (posters)
- Develop storytelling, writing, and presentation skills
- Use tools and materials effectively/develop skills in shooting video, interviewing subjects, editing, and documentary technique
- Learn how social media and web sites can be used to tell or enhance a story
- Analyze projects within a personal and historical context
- Defend projects through individual and group critiques
- Develop the skills to work creatively in a collaborative context
- Develop relationships with professionals in the creative fields of art, technology, production and design
- 5. Date of Departmental Approval: March 14, 2018

DEPARTMENT OF ART

CURRICULUM CHANGE

1. Type of change: New Course

2.

Department(s)	Art
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	ART / CGI
Course Prefix	ART 332 / CGI 332
& Number	
Course Title	Digital Media Production: Advancing the Narrative
Description	Project-driven course focused on production, marketing and brand building. Content creation and development of technical skills in video, creative writing and graphics for print, web and social media platforms.
Pre/ Co	
Requisites	
Credits	3 (may be repeated twice)
Hours	4 (2 lecture, 2 lab)
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	N A P I.
General	x_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

Over the past several years, this course has been running as ART/CGI 451 (Topics in Computer Imaging), with students consistently drawn from Lehman and Macaulay Honors College. This course update would assign a unique number to the class and would make enrollment possible for students who have already taken another section of ART/CGI 451.

Like the current version of the class, this updated course would serve as a link between academic study (theory and technical skill) and real-world experience and career opportunities. Students would have the chance to test out all that they have learned while working on behalf of a real-world client. Students would produce all aspects of a marketing, branding and production campaign, and responsibilities would include mastering a variety of technical skills including graphic design, creative writing, filming, editing, web design, and animation. Students would gain a significant amount of handson experience as they work closely with others and see how their projects directly impact a wide audience. Students would also have the opportunity to actively learn from these experiences in the context of a supportive academic framework.

This course would also become part of a sequence that would serve to create dynamic connections between Lehman students, Macaulay students, Hostos students, and the larger CUNY community. The course would be the fourth class in a proposed digital storytelling course sequence that's outlined in the CUNY 2020 grant proposal. In the beginning of the sequence, Lehman, Hostos, and Macaulay students would meet as a cohort and learn the fundamentals of digital design and video production. One goal of the sequence is to create a pipeline that encourages Hostos students to move on to Lehman: Hostos students could take the first two semesters of the sequence, enroll at Lehman, and then take the third and fourth semesters as Lehman students. Graduates of the course sequence would also become eligible to participate in the Hostos incubator and would have access to career-related resources through Macaulay.

The course would also be an opportunity for students to forge connections with professionals in a variety of fields, leading to a greater familiarity with these fields, access to internships, and possible career opportunities in video and media production, journalism, animation, print and web design, marketing, and advertising.

To give an example of the possible class structure, in three prior iterations of the course (as ART/CGI 451), students produced all aspects of the CUNY Film Festival. Each semester, this included working closely with festival filmmakers, judges, and presenters, organizing the screening days and Gala Awards Evening, creating a new thematic branding identity for the festival, developing marketing strategies and social media campaigns, creating related video projects, and building a CUNY-wide community. This hands-on, project-based format enabled students from across CUNY campuses to work together across disciplines while developing skills and gaining practical job experience.

Note: The course would focus on a completely new production campaign each year, so repeating students would have the opportunity to work with a whole new set of ideas

and themes, and would develop a new range of creative problem-solving skills. Comparing the similarities, differences and specific challenges of unique campaigns would allow repeating students to gain a deeper understanding of the real-world applications of branding, marketing, analytics, and hands-on media production.

4. <u>Learning Outcomes (By the end of the course students will be expected to)</u>: Students will:

- Develop fluency in transmedia storytelling and marketing through assignments, readings, critiques and hands-on real-world experience.
- Develop skills in project conceptualization and community building
- Develop writing, and presentation skills
- · Develop a creative and unconventional approach to step-by-step problem-solving
- Select media appropriate to concepts and forms
- Apply elements of design to the creation of digital content for web, apps, and print
- Use tools and materials effectively/develop skills in video production, documentary filmmaking and interview technique
- Use formal and conceptual strategies to develop projects that demonstrate innovative ideas and creative thinking
- Develop storytelling fluency for web/social media formats
- Analyze projects within a personal and historical context
- Defend projects through individual and group critiques
- Develop the skills to work creatively in a collaborative context
- Learn how the above skills can be effectively applied in a hands-on real-world setting
- Learn how a professional creative production team functions on a day-to-day level
- Develop relationships with professionals in the creative fields of art, technology, production and design

5. Date of Departmental Approval: March 14, 2018

DEPARTMENT OF LATIN AMERICAN, LATINO AND PUERTO RICAN STUDIES

CURRICULUM CHANGE

1. Type of change: New Experimental Course with Cross-listing

Department(s)	LATIN AMERICAN, LATINO AND PUERTO RICAN STUDIES
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental []
Level	Remedial
Subject Area	Latin American and Caribbean Studies
Course Prefix	LAC (LTS) 270
& Number	
Course Title	Global Citizenship, Community Engagement, and Service in Latin America and the Caribbean
Description	Supervised service learning or volunteer experiences in any country in Latin America or the Caribbean.
Pre/ Co	NA
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
Conoral	V Nat Applicable
General Education	X Not Applicable
Component	Required English Composition
Component	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

Over the last academic year, we have had discussions regarding the inclusion of global citizenship, community engagement and service in our curriculum. This is inline with the conversations that have occurred at the college level, as the college attempts to expand internationalization efforts at home and abroad. increase the availability of experiential learning opportunities, and encourage the real world professional skill building that will distinguish our students in the global, interconnected marketplace. In our department, we are additionally interested in strengthening the ties between our community in the Bronx and the countries of Latin America and the Caribbean, where many of our students have familial origins and/or relationships. This course will allow us to do all of the above by providing an experiential learning opportunity combined with appropriate academic content, but flexible in its design to allow our interdisciplinary faculty to tailor to their particular discipline. Service-learning courses, such as this one, will offer students opportunities to link theory and practice through structured engaged learning and research activities in collaboration with local communities, and thus gain further understanding and appreciation of Latin American and Caribbean Studies, while achieving an enhanced sense of civic responsibility.

4. Learning Outcomes (By the end of the course students will be expected to):

- 1) <u>Institutional Learning Goals.</u> Lehman students are engaged as citizens who contribute to their local, national and global communities using reason, integrity, empathy, accuracy, humility, and civility. Specifically, at the end of this course, students will:
 - a. Demonstrate multicultural, global and ethical awareness of diverse peoples and communities: Students respect individual differences and demonstrate empathy towards diverse viewpoints, values and experiences.
 - b. **Demonstrate the ability to work collaboratively as part of a team**: Students contribute as team members to building consensus and share their skills and knowledge.
 - c. **Demonstrate the potential for leadership**: Students assume leadership roles to build capacity in their communities.
- 2) Global Citizenship and Community Engagement Goals.
 - a. **Global learning**: A critical analysis of and an engagement with complex, interdependent global systems and legacies (such as natural, physical, social, cultural, economic, and political) and their implications for people's lives and the earth's sustainability.
 - b. **Intercultural knowledge and competence**: A set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts.

Major or program-specific learning outcomes to be addressed through this course:

Latin American and Caribbean Studies (LAC)

Goal I: Understand Latin American and Caribbean cultures through an appreciation for the extraordinary diversity of the region.

Outcome B: Explain the forces impacting the region's economic, political, and cultural development from the colonial period to the present using interdisciplinary approaches.

Latino Studies (LTS)

Goal I. Understand Puerto Rican history, culture, and society through the island's development as part of Latin America and the Caribbean from the pre-Colombian epoch through the Spanish colonial period, and its subsequent annexation and changing relationship to the United States after 1898.

Outcome A: Explain and analyze the social, economic, political, and cultural forces which have shaped the development of Puerto Rico from the pre-Colombian period through the present.

Outcome C: Examine the extraordinary importance of Puerto Rico's annexation to the United States after 1898 and how this impacted the evolution of all aspects of Puerto Rican historical and cultural development.

5. <u>Date of Departmental Approval</u>: April 27, 2018.

DEPARTMENT OF MATHEMATICS

CURRICULUM CHANGE

1. Type of change: New Course

2.

Department(s)	Mathematics
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Mathematics
Course Prefix	MAT 103
& Number	
Course Title	Trigonometry
Description	Unit Circle Trigonometry, Radians, Graphing Trigonometric Functions, Inverse Trigonometric functions, Trigonometric Identities, Laws of Sines and Cosines, and Applications
Pre/ Co	Placement by the Department of Mathematics
Requisites	
Credits	2
Hours	2
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V NI (A P II
General	X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. Rationale:

The Department of Mathematics currently has no course offering students a thorough and rigorous treatment of trigonometry. MAT 103 fills this need.

4. Learning Outcomes (By the end of the course students will be expected to):

- 1. Use the unit circle to determine the values of trigonometric functions
- 2. Evaluate and Graph all six Trigonometric Functions
- 3. Work with Inverse Trigonometric functions: Arcsin, Arccos, Arctan
- 4. State and apply trigonometric identities
- 5. Apply the Law of Sines and the Law of Cosines
- 6. Solve real-world problems using Trigonometry
- 5. Date of Departmental Approval: March 22, 2018

DEPARTMENT OF MATHEMATICS

CURRICULUM CHANGE

1. Type of Change: Change of Title

2. From :	
Department(s)	Mathematics
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Mathematics
Course Prefix	MAT 171
& Number	
Course Title	Problem Solving for Management, Economics, and Life Sciences
Description	The use of functions, graphs, and matrices to solve various applied problems. Geometry of linear, quadratic, logarithmic, and exponential functions.
Pre/ Co	A grade of C (or better) in MAT 104 or placement by the Department of
Requisites	Mathematics and Computer Science.
	Notes
	(1) MAT 171 is a prerequisite for MAT 174. Students planning on taking MAT 175 should take MAT 172 instead of MAT 171. (2) Students may
	not receive credit for both MAT 171 and MAT 172.
Credits	4
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	Not Applicable
Education	Required
Component	English Composition
	X_ Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity

Creative Expression Individual and Society Scientific World

3. <u>To</u>:

Department(s)	Mathematics
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Mathematics
Course Prefix	MAT 171
& Number	
Course Title	Elements of Precalculus
Description	The use of functions, graphs, and matrices to solve various applied problems. Geometry of linear, quadratic, logarithmic, and exponential functions.
Pre/ Co	A grade of C (or better) in MAT 104 or placement by the Department of
Requisites	Mathematics.
	Notes
	(1) MAT 171 is a prerequisite for MAT 174. Students planning on taking
	MAT 175 should take both MAT 171 and MAT 103. (2) Students may not receive credit for both MAT 171 and MAT 172.
Credits	4
Hours	4
Liberal Arts	[X] Yes [] No
Course	
	INA
	NA
Attribute (e.g.	NA
	NA
Attribute (e.g. Writing	NA NA
Attribute (e.g. Writing Intensive,	Not Applicable
Attribute (e.g. Writing Intensive, WAC, etc)	
Attribute (e.g. Writing Intensive, WAC, etc) General	Not Applicable Required English Composition
Attribute (e.g. Writing Intensive, WAC, etc) General Education	Not Applicable Required English CompositionX_ Mathematics
Attribute (e.g. Writing Intensive, WAC, etc) General Education	Not Applicable Required English Composition
Attribute (e.g. Writing Intensive, WAC, etc) General Education	Not Applicable Required English CompositionX Mathematics Science
Attribute (e.g. Writing Intensive, WAC, etc) General Education	Not Applicable Required English Composition X_ Mathematics Science Flexible
Attribute (e.g. Writing Intensive, WAC, etc) General Education	Not Applicable Required English Composition X_ Mathematics Science Flexible World Cultures
Attribute (e.g. Writing Intensive, WAC, etc) General Education	Not Applicable Required English CompositionX_ Mathematics Science Flexible World Cultures US Experience in its Diversity
Attribute (e.g. Writing Intensive, WAC, etc) General Education	Not Applicable Required English Composition X_ Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression
Attribute (e.g. Writing Intensive, WAC, etc) General Education	Not Applicable Required English CompositionX_ Mathematics Science Flexible World Cultures US Experience in its Diversity

4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

This new title more accurately describes the course content. The department has added a new course in Trigonometry, MAT 103. Students completing both MAT 171 and MAT 103 will be prepared for MAT 175.

5. Date of departmental approval: March 22, 2018

DEPARTMENT OF MATHEMATICS

CURRICULUM CHANGE

1. Type of Change: Change in Prerequisite

2. **From**:

Department(s)	Mathematics
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Mathematics
Course Prefix	MAT 175
& Number	
Course Title	Calculus I
Description	Differentiation of functions of one variable; applications to motion
	problems, maximum-minimum problems, curve sketching, and mean-
	value theorems.
Pre/ Co	Prerequisite
Requisites	A grade of C (or better) in MAT 172 or placement by the Department of
	Mathematics and Computer Science.
	Co-requisite MAT 155
Credits	4
Hours	4
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	Not Applicable
Education	Required
Component	English Composition
	_X Mathematics
	Science
	Flovible
	Flexible
	World Cultures
	US Experience in its Diversity Creative Expression
	Creative Expression Individual and Society
	Individual and Society

Scientific World

3. **To**:

Department(s)	Mathematics
Career	[X] Undergraduate [] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Mathematics
Course Prefix & Number	MAT 175
Course Title	Calculus I
Description	Differentiation of functions of one variable; applications to motion problems, maximum-minimum problems, curve sketching, and mean-value theorems.
Pre/ Co Requisites	Prerequisite A grade of C (or better) in MAT 172 or a grade of C (or better) in both MAT 103 and MAT 171 or placement by the Department of Mathematics. Co-requisite MAT 155
Credits	4
Hours	4
Liberal Arts	[X] Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	X_ Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World

4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The department just created a new course in trigonometry, MAT 103. Students taking both MAT 103 and Mat 171 will be prepared for MAT 175.

5. Date of departmental approval: March 22, 2018

<u>DEPARTMENT OF MUSIC, MULTIMEDIA, THEATRE, AND DANCE</u> <u>DEPARTMENT OF ENGLISH</u>

CURRICULUM CHANGE

1. Type of Change: Prerequisite, Description and Name Change for crosslisted course

2. **From:**

Department(s)	Music, Multimedia, Theatre, and Dance
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Theatre
Course Prefix	THE (ENW) 309
& Number	
Course Title	Screenwriting
Description	A practical approach to screenwriting for theatre, film and television,
	from conception to finished script of the screenplay.
Pre/ Co	Departmental permission
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World
	Goldming World

3. **To**:

Department(s)	Music, Multimedia, Theatre, and Dance
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Theatre
Course Prefix	THE 309
& Number	
Course Title	<u>Digital Storytelling</u>
Description	Techniques in digital storytelling including internet platforms, devised
	performance through language, images, and sound for new forms of
D / O	storytelling.
Pre/ Co	Permission of Instructor
Requisites	
Credits	3
Hours	3
Liberal Arts	[X]Yes []No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc) General	V. Nat Appliaghla
Education	X_ Not Applicable Required
Component	English Composition
Component	English Composition Mathematics
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

In order to fulfill our mission in the BFA MMPA Theatre track and get our students ready for 21st Century initiatives in digital performing arts, our former screenwriting class will now be called digital storytelling in order to accommodate storytelling techniques that include internet platforms, as well as devised performance through language, images, and sound for a new forms of storytelling that are not language specific but include other tools for storytelling. We are removing the crosslist with ENW 309: Screenwriting. English would like to keep the current name since it is more applicable to their

curriculum. This change will allow us the flexibility to run the courses separately or as "meets with" when appropriate.

5. <u>Date of Music, Multimedia, Theatre, and Dance departmental approval</u>: January 25, 2018

Date of English Department approval: February 27, 2018

<u>DEPARTMENT OF MUSIC, MULTIMEDIA, THEATRE, AND DANCE</u> <u>DEPARTMENT OF ENGLISH</u>

CURRICULUM CHANGE

1. Type of Change: Prerequisite, Description and Name Change for crosslisted course

2. **From**:

Department(s)	Music, Multimedia, Theatre, and Dance
Career	[X] Undergraduate [] Graduate
Academic Level	[X] Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Theatre
Course Prefix	THE (ENW) 409
& Number	
Course Title	Advanced Screenwriting
Description	Completion of one full-length screen play or two shorter films, analysis
	of one's own and other's written work, experimentation with new genres
	and technologies, and work with a director to shoot one's own scenes.
Pre/ Co	THE 309 or MMS 309 or ENW 309
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V. Nice Accident
General	X_ Not Applicable
Education	Required
Component	English Composition Mathematics
	Science
	Science
	Flexible
	World Cultures
	US Experience in its Diversity
	Creative Expression
	Individual and Society
	Scientific World

3. <u>**To**:</u>

Department(s)	Music, Multimedia, Theatre, and Dance
Career	[X] Undergraduate [] Graduate
Academic	[X] Regular [] Compensatory [] Developmental [] Remedial
Level	
Subject Area	Theatre
Course Prefix	THE 409
& Number	
Course Title	Advanced <u>Digital Storytelling</u>
Description	Advanced Digital Storytelling is a continuation of Digital Storytelling and
	focuses on digital storytelling techniques in addition to screenwriting
	including internet platforms, devised performance through language,
	images, and sound for new forms of storytelling.
Pre/ Co	THE 309
Requisites	
Credits	3
Hours	3
Liberal Arts	[X] Yes [] No
Course	NA
Attribute (e.g.	
Writing	
Intensive,	
WAC, etc)	V. Niet A. d'est i
General	X_ Not Applicable
Education	Required
Component	English Composition
	Mathematics Science
	Science
	Flexible
	I I IGNIDIG
	World Cultures
	World Cultures US Experience in its Diversity
	World Cultures US Experience in its Diversity Creative Expression
	World Cultures US Experience in its Diversity

4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

In order to fulfill our mission in the BFA MMPA Theatre track and get our students ready for 21st Century initiatives in digital performing arts, our former screenwriting class will now be called digital storytelling in order to accommodate storytelling techniques that include internet platforms, as well as devised performance through language, images, and sound for a new forms of storytelling that are not language specific but include other tools for storytelling. We are removing the crosslist with ENW 409: Advanced Screenwriting. English would like to keep the current name since it is more applicable to

their curriculum. This change will allow us the flexibility to run the courses separately or as "meets with" when appropriate.

5. <u>Date of Music, Multimedia, Theatre, and Dance departmental approval</u>: January 25, 2018

Date of English Department approval: February 27, 2018

Recognizing that members of the Lehman community may sometimes make statements or publish opinions that others may find controversial, and that inquiries about such statements/opinions may be submitted to college offices such as the Department of Media Relations & Publications, the Lehman College Academic Freedom Committee and the Lehman College Senate assert that official College responses to such inquiries should be guided by the Lehman College Statement on Academic Freedom (available on the Lehman College website), and by the following wording:

Lehman College is deeply committed to upholding the values of Academic Freedom, and does not attempt to control the personal opinions, or the public expression of the opinions, of any member of the Lehman community. Public colleges have an important role in society as institutions where novel and even controversial ideas can be proposed, tested, and debated by members of the community. [Name] does not speak for Lehman College, however the College will continue to assert vigorously the rights of all members of the Lehman community to publish and discuss their ideas freely, within the law.



Library Technology and Telecommunications Senate Committee Meeting

Meeting Date: May 2, 2018 Meeting Location: CUNY on The Concourse

Attendance: Ronald Bergmann, Stephen Castellano, Sherry Deckman, Jennifer McCabe, Kenneth Schlesinger,

Student Senator Representatives: No Student Senators Present at Meeting of 05/02/2018

Excused: Ron Bergmann, Sherry Deckman, Anna Luerssen

Library Report:

- Library announces 24-Hour Study Hall for Final Exams from **May 10-24** in cooperation with Public Safety and Student Government.
- Library announces an *Amnesty* period: May 14th-31st. Use this opportunity to return overdue books without penalty. Fines will be waived during the *Amnesty* period. The *Amnesty* period is for BOOKS only and does not include Recall Fines, lost or damaged books or pending fines for reserve items such as electronics, Study Room Keys and Reserve Books.
- Library held a Reading and Discussion this past Thursday with Professor David Hyman of the English Department. The program was titled: *Revision and The Superhero Genre*

Division of Information Technology:

- Our committee meeting was held at the VR/AR Lab at CUNY on The Concourses at Fordham Road. Members of the committee were treated to a VR/AR Experience. Discussion surrounded how this technology may be used in the classroom.
- We encourage the use of the Lehman Lightning crowdsourcing platform to generate, vote and comment on ideas for mutual interest. You will find the platform on Lehman One Access.
- We are pleased to announce that the Micro-Credential/Badging pilot was off to a great start this semester. The initial two badges were issued to Fall 2017 Presidential Scholars and Dean's List recipients. More than 1,000 students or 45% of the recipients claimed their badges. The Library also issued two badges for: Human Library and Bloomberg Terminal Certification

Blackboard Report

- The Bronx Ed Tech Showcase took place on April 27th at Hostos Community College. This year's showcase theme was: **Igniting Innovation: Literacy, Access and Learning.** All presentations were recorded Google: Bronx Ed Tech Showcase to view the presentations.
- It is never too early to mention the upcoming Blackboard Upgrade. The Upgrade is coming this December and will include some new features: Attendance, Cloud Storage Integration, and the ability to Create an Audio Recording for student Feedback.

Respectfully submitted,

Stephen Castellano Chair, Library Technology and Telecommunications Committee

Lehman Senate Budget Committee Report

Based on committee meeting on 5/2/2018

Membership and attendance of Joint committee of Senate and FP&B Budget and Long-Range Planning

SenatorsFP&B membersAdministrationStudentsHaiping ChengJames MahonVincent ClarkSaac Atif

Amod Choudharv Abigail McNamee Harriet Fayne Shaffiou Assoumanou

Thomas Conroy Brian Murphy Bethania Ortega

Gul Sonmez Dene Hurley Guest

Sheila Blachman Ryan Raaum

Daniel Kabat Marie Marianetti

The Budget committee meeting was called to order at 1:40 pm by Haiping Cheng on May 2, 2018, in Shuster 336.

>VP Rotolo: Long-term capital budget supported projects:

Immediate: Performance Center Front renovation, Bookstore, teaching labs and classroom,

upcoming (in bidding): Library basement renovation, etc

longer term (designed): old gym swimming pool area to meet-up place

> VP Embersole: meet and greet, Institutional advancement combined with mediate relation and alumni office

Provost report: travel fund: \$9-10K left in each of the 4 schools

membership for accreditation and non-accreditation: \$44K

Faculty search (completed and on going) 25 for starting Fall 2018; 18 approved for starting Fall 2019

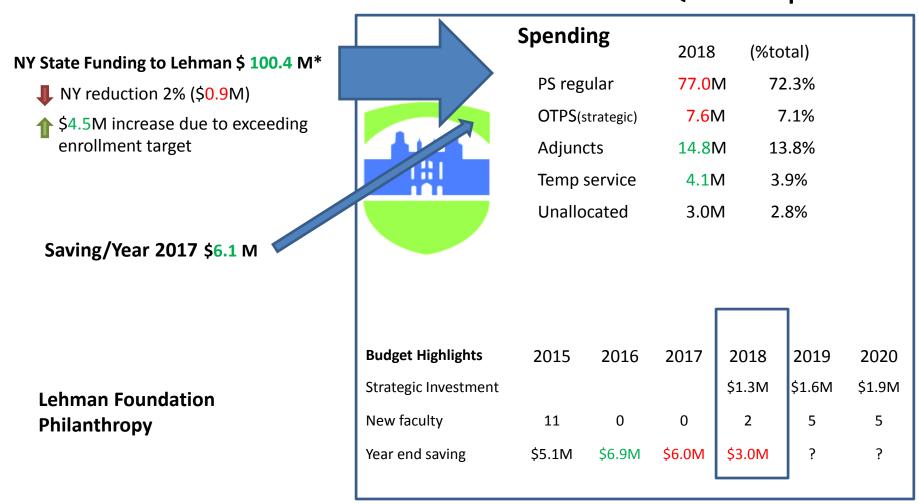
>Lehman College budget update, VP Clark

next page

Lehman Budget Committee Report

Based on VP Clark's budget report on May 2, 2018

FY2018 3rd Quarter Report



^{*:&}quot;projected resources" minus "other funds"

^{**}Green: increase from prior year, Red: reduction from prior year.

Report to the Lehman College Senate from UFS Plenary

The University Faculty Senate of CUNY met on Tuesday April 24 at CUNY Central office.

I. Update on Pathways Assessment

David Crook, University Associate Provost for Academic Affairs, Lucinda Zoe, University Dean for Undergraduate Studies, Martin J. Burke, Professor and At-Large Member of the UFS, Executive Committee

A detailed presentation of data from the four year review of Pathways. Main points were these:

- Graduation rates are up across CUNY, but it is not clear that is may be attributed to Pathways or other initiatives across the university
- No significant change in the subject areas that students took in their first year
- Fall 2017 saw a significant increase in the number of students transferring *with* an Associate's degree
- The main impetus for Pathways originally was to help students graduate with a reasonable credit accumulation and prevent credit duplication across the system. No data was presented that address credit accumulation and number of credits earned by graduating students.

http://www2.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/undergraduate-studies/pathways/YEAR-FOUR-updates-2018-04-17-revised.pdf

Next Steps:

- The Office of Academic Affairs will publish annual data tables
- OAA intends to evaluate the following in the coming years:
 - college option, especially, how many students are transferring across senior college
 - Major Gateway courses
 - o Overlays such as WI or Diversity that exist at many colleges
 - o SUNY/CUNY articulation across our Gen Ed.
- Six Year Review takes place 2019-20

II. Budget Committee

John Verani, chair of the budget committee summarized the Budget Workshop that was offered to a sold-out audience of faculty and students on April 13 which went over the various CUNY Budget elements such as state, tax levy and non-tax levy and funding differences between the 2-year and 4-year colleges. He also reminded faculty at CUNY By-law 8.7c requires that President's budget submission should show evidence of consultation with elected faculty and student representation.

III. Academic Affairs Committee

Martin Burke reported that the NYSDOE has put a halt to all joint degree programs. No programs will be rescinded, but no new joint degree programs will be entertained. DOE objects to students being enrolled in 2 programs, potentially at 2 different institutions at the same time. A dual degree program should mean that a student is enrolled in a single program and that both degrees are awarded at the same time at the end, not in succession.

OAA will also be tracking the AP course acceptance rates in the disciplines to see if there are discrepancies between or outliers in acceptance levels.

IV. Status of the Faculty

Ben Franz reported on proposed changes that his committee is working on regarding CUNY ByLaw 9.6c (Draft resolution circulated before May 15 meeting) and there was discussion of the COACHE survey: the committee voted to press the university to include adjuncts in the next survey and they would like to see the action items that came from the last survey before starting another one.

V. Student Affairs

Kimora reports that their committee is seeking more information about FIRE (Foundation for Individual Rights in Education); Alerted us to proposed changes to the policy on Sexual Misconduct and they put forward a resolution that was passed by the UFS body calling for the Board of Trustees to table the proposed motion to change CUNY policy on student activity fees when it is brought to them in June.

VI. Enrolment Management

Kathleen Barker reports that the new extended 21 day reporting period for Verification of Enrolment will continue next year.

VII. Chair's Report

Kay Conway reports that there will be a meeting with campus safety representatives to learn the process of security on our campuses; the proposed CUNY Policy on cloud computing received 160 responses and a committee has been formed to look at and rewrite the draft policy with faculty representatives.

New Items since the meeting:

Draft resolution to be presented at the next plenary from the committee on Higher Education in the Prisons regarding directive 4911a:

http://www1.cuny.edu/sites/cunyufs/2018/05/08/for-your-consideration-a-resolution-from-the-ufs-committee-on-higher-education-in-the-prisons/

Next meeting: May 15, 6:30pm CUNY Graduate Center

Respectfully submitted Janette Tilley Associate Professor, Music, Multimedia, Theatre, and Dance

Informational Item:

FORTHCOMING CHANGES TO THE POLICY ON SEXUAL MISCONDUCT April 13, 2018

The current Policy on Sexual Misconduct was adopted by the Board of Trustees in October of 2015. Since that time, there has been a New York State audit by the State Office of Campus Safety of CUNY's compliance with the State "Enough is Enough" statute ("EIE audit") and also changes in federal requirements, specifically the Clery Act and Title IX guidance from the Office for Civil Rights of the U.S. Department of Education ("OCR"). These developments require changes to the current Policy. The Office of General Counsel is finalizing a draft and will begin the consultative process the week of April 9, so that a revised Policy will be presented to Board Committee on Student Affairs and Special programs, Committee on Faculty, Staff and Administration (for information) and the full Board at their respective June meetings. Because these revisions do not involve Board Bylaw changes, the Board can update the Policy in a single meeting.

Explanation: The great majority of changes in the forthcoming draft are necessitated by OCR guidance changes and EIE audit findings, or strongly urged by the State. Many of those are changes in definitions and wording to conform more precisely to EIE and the Clery Act, or to clarify rights of complainants and respondents. This includes changes to the definition of affirmative consent, the Student Bill of Rights, and the listing of possible interim and supportive measures. The EIE Audit findings also mandated:

- a requirement that all incoming students complete training on sexual misconduct, including CUNY's policy and how to report allegations, as well as many other topics;
- an appeals process for interim measures for both respondents and complainants;
- an appeals process when either the respondent or complainant believes that there is a conflict in either the investigation or the adjudication process;
- a written policy specifying the factors to be considered when a complainant does
 not want to participate in an investigation, including determining whether a
 respondent is a continuing threat to the safety of the campus; and
- that student disciplinary hearing procedures, which are found in the Board of Trustees Bylaws Article XV, or other separate documents, be copied and included within the Policy.

The revised draft includes two non-mandatory changes in response to revisions in OCR guidance to align CUNY with practices at other institutions and to facilitate additional resolution options as well as thorough investigations and reports. The first is to provide a clear informal resolution process for cases other than sexual assault, when all parties consent and the campus approves. The other is to change the time frame for completion of investigation and report of complaints from 60 days to 90 days.

There will be a robust consultation process, notwithstanding that the revisions to the current Policy are necessitated or strongly urged by the State EIE Audit or federal law and guidance, beginning the week of April 9, to allow for consideration of a revised Policy in June. The draft revised Policy will be provided to the State Office of Campus Safety for their comments, and will be widely disseminated to campus constituencies,

including student and faculty governance bodies, campus presidents and administrators, and the PSC.