## LEHMAN COLLEGE

## The City University of New York

Lehman College Senate Meeting Minutes
Wednesday, March 1, 2023, at 3:45 PM
Carman Hall, B-04
Senators Present: Aisemberg, Gabriel; Akinkuolie-Ibidapo, Oluwatimilehin O.; Alli, Alesha; Amargo, Zef A.; Austin, Laurie; Banks, Ronald; Bettiol, Renato; Bishop, Shirley; Brijmohan, Stefanie; Brown, Kimarea; Brownson, Carl; Burton-Pye, Benjamin; Busby, Aziza; Campeanu, Sandra; Clapp, Joseph; Cooper, Wendell; Dominquez, Victoria; Dozier, Ja-el Lucina; Fera, Joseph; Finger, Richard; Forde, Althea; Fulakeza, Steven; Gil, Marianni M.; Gorokhovich, Yuri; GuerreroBerroa, Elizabeth; Harriram, Priya; Harrison, Elgloria; Heyaime, Jose Pedro; Holtzman, Benjamin; Hurley, Dene; Hyman, David; Kalb Aryeh B.; Kareemuddin, Zainab B.; Kurup, Vasundara; Latchman, Frederice Y.; MacDonna, Patricia M.; Mahon, James; Marmolejos, Frankelly; McKenna, Christine; Mills, Pamela; Moalem, Lisa; Mohorcich, Joseph; Murphy, Brian; Neumayer, Christine; Nwosu, Peter; Oberlin, Douglas; O’Boy, Deirdre; Ongley, John; Palacios, Hillary; Parmar, Rene; Pazos, Kennedy C.; Pillcorema, Kelly A.; Pitts, Wesley; Rashid, Emani Z.; Reynoso, Krystal; Rivera, Steven J.; Rodrigues, Semia; Roldos, Maria Isabel; Rosario, Yvette; Ruiz, Ediltrudys; Samuel, Lalitha; Santiago, Xavier T.; Schlesinger, Kenneth; Seeram, Selina; Sisselman-Borgia, Amanda; Sofianos, Eva; Stein Smith, Sean; Urquiza Riveroll, Ana Rebeca; Wang, Hsien-Tseng; Wright, Jermaine; Yavuz, Devrim; Zhao, Liang.

Senators Absent: Amend, Allison; Baraldi, Carole; Chen-Hayes, Stuart; Contreras, Maria Guadalupe; Delgado, Fernando; Di Raimo, Susan; Fakhouri, Sameh; Farrell, Robert; Ford, Gary; Gerry, Christopher; Khatun, Taslima; MacKillop, Jane; Markens, Susan; Murray, Monique; Ohmer, Sarah; Payan, Juan Jesus; Prince, Penny; Prohaska, Vincent; Ramsundar, Sanjay; Rice, Anne; Rotolo, Rene; Schwittek, David; Smith, Sunyata; Vann, Maurice; Waring, Elin; Wills-Jackson, Celestial;

The meeting was called to order at $3: 50$ p.m. by Chair of the College Senate, Prof. Joseph Fera. President Fernando Delgado was not present due to a meeting upstate.

## 1. Approval of the Minutes

The minutes of the February 1, 2023, College Senate were approved with one correction by unanimous voice vote. One student senator was mistakenly marked absent. The individual was directed to send in their name to amend the minutes.
2. Announcements and Communications
a. Report of the President-

There was none.

## b. Student Legislative Assembly-

Frankelly Marmolejos announced that he is the new Chair of the Student Legislative Assembly and thanked everyone for their support. He announced that there were 14 new Senators who were elected with him, and he congratulated them. There was a successful "Build A Bear" event for Valentine's Day, two successful events for Black History Month and a successful "Club Fair" event. Students can get their taxes done for free; more information was made available via a QR code. He provided the code during the meeting so professors could distribute.

## 3. REPORTS OF STANDING COMMITTEES-

## 1. Graduate Studies

a. Professor Lalitha Samuel presented proposals for the following departments: Early Childhood and Childhood Education; Exercise Sciences and Recreation; Management and Business Innovation and Middle School and High School Education. There were no questions, and the proposals were approved by a unanimous voice vote.
b. An informational item was presented. The CUNY Board of Trustees asked the Graduate Studies committee to review and again endorse charging an annual program fee for the EdD Program in Organizational Leadership, Development, and Change. This fee had been approved by the Graduate Studied Committee and Senate previously, but the Board asked for another review given the amount of time that has passed since Lehman Governance approval.

The next meeting is scheduled for Wednesday, March 29, 2023, at 11:00 a.m. via Zoom.

## 2. Governance Committee

Professor Joseph Fera presented for the Governance Committee.
a) As of March 1, 2023, the solicitation for nominations for the Standing Committee Faculty are being accepted. Solicitations will end on March 15, 2023. The slate of
members for the vacancies will be brought to the May Senate Meeting. All faculty members and staff (full-time and part-time), HEO and CLT, can be elected and selected to serve on any committee. The Governance Committee is the only committee where the members must be members of the Senate.
b) The "Senators at Large" elections are taking place remotely and a "Lime Survey" will be used. At-large Senators serve 2-year terms. There is a nomination round. Full-time faculty can only vote for Senators at Large who are full-time faculty and part-time faculty can only vote for Senators at Large who are part-time faculty. You can only vote for someone in the same title as you.
c) Professor Joseph Fera presented the slate of students nominated to serve as Student Committee members. Three vacancies were available. Professor Fera moved to a vote and all nominees were elected by a unanimous voice vote.

The next meeting is scheduled for Monday, March 6, 2023, at 1:00 pm via Zoom.

## 3. Committee on Admissions, Evaluations, and Academic Standards: Professor Sandra

## Campeanu

Professor Sandra Campeanu presented a resolution for the Department of Health Equity, Administration \& Technology. To be considered for admission to the B.S. in Public Health, an applicant must have a GPA of 2.7 - 2.9. This equates to a "B-". Dean Harrison affirmed that most public health programs believe that those with a GPA in the range of $2.7-2.9$, will have a better opportunity to improve their GPA within the program they are utilizing (in this instance that would be Lehman). The main concern was the "transfer students". Most "Associate Programs" will have a cumulative GPA requirement of 2.7. A master's degree is the entrance to practice.

An amendment was suggested regarding GPA to make the policy clearer. Professor Sandra Campeanu moved to amend page 6 by motion. This motion was seconded and the amendment was accepted by a unanimous voice vote. A typo on the proposal was pointed out by the body. Professor Fera moved for a vote of the proposal with the amendment accepted and typo corrected. It was approved by a unanimous voice vote. See Attachment I.

The next meeting is scheduled for Tuesday, April 4, 2023, at 11:00 pm via Zoom.

## 4. Undergraduate Curriculum: Professor Lynn Rosenberg

Professor Lynn Rosenberg was not present, and Professor Yuri Gorokhovich presented proposals which were approved by the UCC by a unanimous vote. The proposals were from the following departments: Computer Information System; Computer Science; Africana Studies and Chemistry. Prof. Fera moved for a vote for all proposals brought by the UCC. It was all approved by a unanimous voice vote.

The next meeting is scheduled for Wednesday, April 19, 2023, at 1:00 pm via Zoom.

## 5. Academic Freedom: Professor David Manier

There was no report.
The next meeting is scheduled for Friday, March 10, 2023, at 1:30 pm via Zoom.

## 6. Library, Technology, and Telecommunications: Mr. Steven Castellano

Mr. Steven Castellano brought announcements.
a. Students, faculty, and staff may now borrow materials from the library for up to 8 weeks and renew up to 4 times.
b. As pertaining to the Division of Information Technology, people can't reset passwords via email for security reasons. There is an autoreply email where one can request a reset by phone by joining the Lehman virtual queue. Service Now is new and you will be able to submit your own tickets and it will be routed to the appropriate IT area. It is selfservice.
c. Blackboard Ali is available for all the Blackboard courses, and it is a tool for instructors. There will be upcoming training sessions for faculty. A link will be sent out for training.
d. Preparation to teach online will be available twice (from April 7, 2023 - April 30, 2023, and from Aug 7, 2023 - Aug 20, 2023). For questions, please reach out to the Office of Online Education.

The next meeting is scheduled for Wednesday, March 29, 2023, at 11:00 am via Zoom.

## 7. Campus Life and Facilities: Professor John Ongley

Professor John Ongley reported on updates of the committee.
a. Facilities Report:
i. The Apex is undergoing a "Lighting upgrade". Sample lights have been put up for testing.
ii. Carman Lecture Hall is undergoing renovation (B-39 and B-36).
iii. The Nursing Building will be completed by next fall.
iv. Con Edison's excavation is nearing completion.
v. The cafeteria is still accepting bids for food vendors. There is a selection committee. A Senator requested that the committee be informed that we would prefer unionized vendors to avoid exploited workers.

The next meeting is scheduled for Wednesday, March 29, 2023, at 2:00 pm via Zoom.

## 8. Budget and Long-Range Planning: Professor Brian Murphy

Professor Brian Murphy presented on updates. The last meeting was February 15, 2023. There was funding for 14 lecturers and 7 tenure track lines. This will remain intact. The numbers mentioned below are a projection of what we have now and may be subject to change. See Attachment II.
a. Revenue for tuition is down more than expected.
b. The anticipated deficit at year end is $\$ 16,982,000$.
i. The deficit for this year will be funded largely with Federal Stimulus funds.
c. After 7 years of tuition revenue increase, there has been a sharp decline in tuition.
d. Expenses have steadily increased, and enrollment is down.
e. Lehman did not meet the revenue target in FY22.
f. Lehman will not meet the revenue target in FY23.
g. Proposed budget cuts were provided. See Attachment II.
h. Conclusively, by the end of FY24, we will be about 29 million dollars under. As mentioned above, these are projections and subject to change.

Bethania Ortega came up to the podium to take questions. She affirmed that other CUNY schools are experiencing the same problems and are going through the same process. Graduate headcounts are also declining at Lehman. President Delgado will post a live briefing.

The next meeting is scheduled for Wednesday, April 19, 2023, at 1:00 pm in SH-336.

## 9. Assessment: Professor Devrim Yavuz

Professor Devrim Yavuz presented and affirmed there is good progress in terms of student goals and making student outcome visible. There was a workshop on March 7, 2023.

The next meeting will be posted online and will be via Zoom. It may be April 3,2023 or March 27, 2023.
10. Equity, Inclusion, Accessibility, and Anti-Racism: Professor Mary Phillips

Takiyah Ali presented with updates. See Attachment III.
a. There is a pilot for wellbeing hours to build momentum.
b. Food Insecurity- A proposal was submitted to Panera Bread for "Day-End DoughNation".
c. Campus Climate Survey- QR codes were provided to bring awareness to our reporting system.

The next meeting is scheduled for Tuesday, March 7, 2023, at 11:00 am via Zoom.

## 11. University Faculty Senate Report: Professor Dana Fenton

Professor Fenton was not present to give an update.

## Unfinished Business

There was no report.

## New Business

a. Launch of COACHE Satisfaction Survey. It is a 25 -minute survey. The topics people were usually unsatisfied about include mentoring, campus climate and tenure promotion.

## ADJOURNMENT

Professor Fera adjourned the meeting at 5:10 p.m.

Respectfully submitted:

Lalita Hainauth, J.D.

Senate Meeting - March 1, 2023
Proposed Graduate Studies Report

Department of Early Childhood and Childhood Education

- Addition of distance education format: Advanced Certificate, Bilingual Extension Birth-Grade 6

Department of Exercise Sciences and Recreation

- Degree changes: M.S., Human Performance and Fitness
- New course: EXS 620


## Department of Management \& Business Innovation

- Degree changes: M.S., Business Administration
- Course changes: MSB 721, 722 and 723
- New course: MSB 724

Department of Middle and High School Education

- Course change: ESC 511
- New degree program: M.S.Ed., Computer Science Education
- New certificate program: Advanced Certificate, Computer Science Education distance education format only
- Addition of distance education format: M.S.Ed., Computer Science Education
- Addition of distance education format: Advanced Certificate, Bilingual Extension 5-12
- Degree and program title changes: M.A., Spanish Teaching, 7-12
- Degree and program title changes; adding missing program to bulletin: M.A. Spanish Teaching 7-12 (Trans B)


## Informational Items:

On behalf of the Graduate Studies Committee, I also would like to notify senators and other attendees of the following informational item that was approved by the Graduate Studies Committee

A resolution for CUNY's Board to authorize Lehman College to charge an annual program fee for the Ed.D. Program in Organizational Leadership, Development and Change. This program fee was already approved by Lehman governance, by CUNY's Board and by NYSED but Lehman was asked to review the fee again.

Next meeting: March 29, 2023, at 11 a.m.

## LEHMAN COLLEGE OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF EARLY CHILDHOOD \& CHILDHOOD EDUCATION

## CURRICULUM CHANGE

Name of Program and Degree Award: Advanced Certificate Bilingual Extension Birth Grade 6
Hegis Number: 0899.00
Program Code: 42306
Effective Term: Summer 2023

1. Type of Change: Addition of Distance Education Format to Advanced Certificate Bilingual Education Birth - Grade 6.

## 2. From:

Advanced Certificate Program: Bilingual Extension Birth - Grade 6 (12 credits)
This program is designed for Bilingual Teachers who hold New York State Birth-grade 6; who are proficient in English and in a home language other than English; and who seek a bilingual extension to teach their certification area in both languages.

## Admission Requirements:

- A bachelor's degree (or its equivalent) from an accredited college or university.
- An undergraduate or master's degree index of at least 3.0.
- New York State early childhood or childhood teacher certification grades Birth to grade 6.
- One (1) letter of recommendation.
- Demonstrate proficiency in English and in the home language other than

English by completing an interview and career essays in both languages.

- Have successfully completed a course in multicultural perspectives (at least 3 credits). Candidates may take ESC 769 or another course selected in consultation with the adviser to meet this requirement.
- Meet additional Department, College, and State requirements, if any.


## Certificate Requirements

Students must consult with an adviser in the Advanced Certificate: Bilingual Extension Birth-Grade 6 program before beginning their studies. During their first semester, matriculated students are required to plan their graduate program with the adviser. To-successfully complete the program, students must complete the curriculum as outlined below. Gandidates for the bilingual extension Birth - Grade 6 are expected
to pass the Bilingual Education Assessment (BEA) before completing nine (9) program credits or the first two semesters of matriculation.

Curriculum:
Bilingual Extension: Early Childhood/Childhood General Education, Birth - grade 6:
EDC/ EDE 709 (3), EDE/EDC 727 (3), EDE/EDC 738 (3), EDE/EDC 739 (3)
TOTAL: 12 crs.

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Content Courses (12 crs)
EDC 709: Multilingualism in the Classroom Birth-6
OR
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EDE 709: Multilingualism in the Classroom Birth-6. 3 credits
EDE 739 Social Studies Concept Development
in Bilingual/Bicultural Early Childhood Settings grades 1-6_3 credits
OR
EDC 739: Social Studies Concept Development
in Bilingual/Bicultural Early Childhood Settings Birth-2 3credits
EDC 727: Teaching English as a Second Language (Birth-grade 2)
OR 3 credits
EDE 727: Teaching English as a Second Language (Prek-grade 6)
EDC 738: Literacy in Bilingual/Bicultural Early Childhood
Settings, Birth-grade-2
OR 3 credits
EDE 738: Learning and Teaching Literacy in Bilingual/ Bicultural
Childhood Settings, grades 1-6

## TOTALCREDITS FOR-CERTIFICATE: 12

## 3. To:

## Advanced Certificate Advanced Certificate Program: Bilingual Extension Birth Grade 6 (12 credits)

This program is designed for Bilingual Teachers who hold New York State Birth-grade 6; who are proficient in English and in a home language other than English; and who seek a bilingual extension to teach their certification area in both languages.

Candidates wishing to do so may complete the degree program entirely online by taking online courses only.

## Admission Requirements:

- A bachelor's degree (or its equivalent) from an accredited college or university.
- An undergraduate or master's degree index of at least 3.0.
- New York State early childhood or childhood teacher certification grades Birth to grade 6.
- One (1) letter of recommendation.
- Demonstrate proficiency in English and in the home language other than English by completing an interview and career essays in both languages.
- Have successfully completed a course in multicultural perspectives (at least 3 credits).

Candidates may take ESC 769 or another course selected in consultation with the adviser to meet this requirement.

- Meet additional Department, College, and State requirements, if any.


## Certificate Requirements:

Students must consult with an adviser in the Advanced Certificate: Bilingual Extension Birth-Grade 6 program before beginning their studies. During their first semester, matriculated students are required to plan their graduate program with the adviser. All candidates must complete the curriculum outlined below. In order to recommend for the Bilingual Extension, candidates must complete the Advanced Certificate: Bilingual Extension Birth - Grade 6 program with a cumulative of 3.0 or better, pass the Bilingual Education Assessment (BEA), and meet any additional New York State requirements.

## Curriculum:

## OPTION ONE: Hybrid/Campus Program

Bilingual Extension: Early Childhood/Childhood General Education, Birth - grade 6: EDC/ EDE 709 (3), EDE/EDC 727 (3), EDE/EDC 738 (3), EDE/EDC 739 (3) TOTAL: 12 crs .

## OPTION TWO: Online Program (Courses offered as asynchronous or synchronous via video instruction)

Bilingual Extension: Early Childhood/Childhood General Education, Birth - grade 6: EDC/ EDE 709 (3), EDE/EDC 727 (3), EDE/EDC 738 (3), EDE/EDC 739 (3) TOTAL: 12 crs .

## 4. Rationale:

The addition of the distance education format for the Advanced Certificate Program: Bilingual Extension Birth-Grade 6 will not affect the course learning objectives of the existing program since the delivery mode of the courses is the only change implemented. The distance learning format will allow students to complete the program by taking all courses online. The department will offer at least one section of each course online.

The description of certification requirements was clarified and the list of courses was simplified to provide more accurate information, but these changes do not affect the program's learning outcomes.
5. Date of departmental approval: 12/14/2022

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF EXERCISE SCIENCES AND RECREATION

## CURRICULUM CHANGE

Name of Program and Degree Award: Human Performance and Fitness, M.S. Hegis Number: 1299.30
Program Code: 39966
Effective Term: Fall 2023

## 1. Type of Change: Degree requirements (adding an elective)

## 2. From: <br> Human Performance and Fitness, M.S. Program

Lehman College's M.S. in Human Performance and Fitness Program aims to equip students with the 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, a graduate degree that ties together the studies of anatomy, kinesiology, physiology, sports nutrition and other related exercise science disciplines, is an excellent way to tap into a plentiful job market whose goal is the promotion of a healthier nation through exercise and fitness interventions. In addition, the program utilizes the Human Performance Laboratory, with its state-of-the-art equipment, and the additional resources of the APEX facility, including its fitness and weight training centers.

The program prepares students for careers in corporate and community fitness programs, health clubs, and similar fitness-related industries. Although the program does not fulfill teacher certification requirements, it is 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 prepares students for doctoral programs in areas related to exercise science and to carry out research that advances the emerging body of literature in human health, fitness and performance.

Admission Requirements
The following admission requirements apply for entry into the program:

- 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. Viable candidates will be required to take leveling courses at the undergraduate level based on their academic background and then admitted conditionally provided they pass these courses.
- 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.

Degree Requirements

## Option 1: Thesis

## Core Courses (18 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 501 | Physical Activity, Exercise and Fitness | 3 |
| EXS 502 | Advanced Exercise Physiology | 3 |
| EXS 503 | Advanced Research Methods in Exercise Science | 3 |
| EXS 504 | Advanced Exercise Testing and Prescription | 3 |
| EXS 505 | Advanced Sports Nutrition | 3 |
| EXS 506 | Applied Training Methodologies | 3 |

## Elective Courses (9 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 615 | Advanced Kinesiology and Biomechanics | 3 |
| EXS 616 | Advanced Motor Learning and Performance | 3 |
| EXS 617 | Advanced Training Methods for Strength and Hypertrophy | 3 |
| EXS 626 | Fitness Management and Marketing | 3 |
| EXS 665 | Psychology of Sport | 3 |
| EXS 670 | Research Practicum in Applied Exercise Science | 3 |
| EXS 675 | Independent Study Project | 3 |
| EXS 680 | Selected Topics in Exercise Science | 3 |
| HEA 600 | Biostatistics | 3 |

## Thesis (6 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 790 | Thesis Workshop 1 | 3 |
| EXS 791 | Thesis Workshop 2 | 3 |

## Option 2: Capstone Project

## Core Courses (18 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 501 | Physical Activity, Exercise and Fitness | 3 |
| EXS 502 | Advanced Exercise Physiology | 3 |
| EXS 503 | Advanced Research Methods in Exercise Science | 3 |
| EXS 504 | Advanced Exercise Testing and Prescription | 3 |
| EXS 505 | Advanced Sports Nutrition | 3 |
| EXS 506 | Applied Training Methodologies | 3 |

## Elective Courses 12 Credits

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 615 | Advanced Kinesiology and Biomechanics | 3 |
| EXS 616 | Advanced Motor Learning and Performance | 3 |
| EXS 617 | Advanced Training Methods for Strength and Hypertrophy | 3 |
| EXS 626 | Fitness Management and Marketing | 3 |
| EXS 665 | Psychology of Sport | 3 |
| EXS 670 | Research Practicum in Applied Exercise Science | 3 |
| EXS 675 | Independent Study Project | 3 |
| EXS 680 | Selected Topics in Exercise Science | 3 |
| HEA 600 | Biostatistics | 3 |

## Capstone Project (3 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 795 | Capstone Project Workshop | 3 |

## 3. To: <br> Human Performance and Fitness, M.S. Program

Lehman College's M.S. in Human Performance and Fitness Program aims to equip students with the 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, a graduate degree that ties together the studies of anatomy, kinesiology, physiology, sports nutrition and other related exercise science disciplines, is an excellent way to tap into a plentiful job market whose goal is the promotion of a healthier nation through exercise and fitness interventions. In addition, the program utilizes the Human Performance Laboratory, with its state-of-the-art equipment, and the additional resources of the APEX facility, including its fitness and weight training centers.

The program prepares students for careers in corporate and community fitness programs, health clubs, and similar fitness-related industries. Although the program
does not fulfill teacher certification requirements, it is 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 prepares students for doctoral programs in areas related to exercise science and to carry out research that advances the emerging body of literature in human health, fitness and performance.

Admission Requirements
The following admission requirements apply for entry into the program:

- 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. Viable candidates will be required to take leveling courses at the undergraduate level based on their academic background and then admitted conditionally provided they pass these courses.
- 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.

Degree Requirements

## Option 1: Thesis

## Core Courses (18 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 501 | Physical Activity, Exercise and Fitness | 3 |
| EXS 502 | Advanced Exercise Physiology | 3 |
| EXS 503 | Advanced Research Methods in Exercise Science | 3 |
| EXS 504 | Advanced Exercise Testing and Prescription | 3 |
| EXS 505 | Advanced Sports Nutrition | 3 |
| EXS 506 | Applied Training Methodologies | 3 |

## Elective Courses (9 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 615 | Advanced Kinesiology and Biomechanics | 3 |
| EXS 616 | Advanced Motor Learning and Performance | 3 |
| EXS 617 | Advanced Training Methods for Strength and Hypertrophy | 3 |
| EXS 620 | Advanced Statistical Methods in Health and Exercise Science | $\underline{3}$ |
| EXS 626 | Fitness Management and Marketing | 3 |
| EXS 665 | Psychology of Sport | 3 |
| EXS 670 | Research Practicum in Applied Exercise Science | 3 |
| EXS 675 | Independent Study Project | 3 |
| EXS 680 | Selected Topics in Exercise Science | 3 |
| HEA 600 | Biostatistics | 3 |

## Thesis (6 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 790 | Thesis Workshop 1 | 3 |
| EXS 791 | Thesis Workshop 2 | 3 |

## Option 2: Capstone Project

## Core Courses (18 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 501 | Physical Activity, Exercise and Fitness | 3 |
| EXS 502 | Advanced Exercise Physiology | 3 |
| EXS 503 | Advanced Research Methods in Exercise Science | 3 |
| EXS 504 | Advanced Exercise Testing and Prescription | 3 |
| EXS 505 | Advanced Sports Nutrition | 3 |
| EXS 506 | Applied Training Methodologies | 3 |

## Elective Courses 12 Credits

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 615 | Advanced Kinesiology and Biomechanics | 3 |
| EXS 616 | Advanced Motor Learning and Performance | 3 |
| EXS 617 | Advanced Training Methods for Strength and Hypertrophy | 3 |
| EXS 620 | Advanced Statistical Methods in Exercise Science | $\underline{3}$ |
| EXS 626 | Fitness Management and Marketing | 3 |
| EXS 665 | Psychology of Sport | 3 |
| EXS 670 | Research Practicum in Applied Exercise Science | 3 |
| EXS 675 | Independent Study Project | 3 |
| EXS 680 | Selected Topics in Exercise Science | 3 |
| HEA 600 | Biostatistics | 3 |

## Capstone Project (3 Credits)

|  |  | Credits |
| :--- | :--- | :--- |
| EXS 795 | Capstone Project Workshop | 3 |

## 4. Rationale:

The master's program in Human Performance and Fitness is in need of additional electives to give students more of a choice in the courses they take outside of core requirements. We are adding an elective in statistics for exercise science that provides students with an opportunity to better understand and apply statistical concepts when conducting and critically appraising research in the field. Thus, the change will enhance the learning experience for students in the program.
5. Date of departmental approval: 11/30/2022

## LEHMAN COLLEGE

OF THE
CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF EXERCISE SCIENCES AND RECREATION

## CURRICULUM CHANGE

## 1. Type of change: New Course

2. 

| Department(s) | Exercise Sciences and Recreation |
| :---: | :---: |
| Career | [ ] Undergraduate [X] Graduate |
| Academic Level | [X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Human Performance and Fitness |
| Course Prefix \& Number | EXS 620 |
| Course Title | Advanced Statistical Methods in Health and Exercise Science |
| Description | Statistical methodology as it relates to the field of exercise science with a focus on estimation- and magnitude-based approaches. |
| Pre/ Co Requisites | Departmental Permission |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) | NA |
| General Education Component | $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> Scientific World |

## 3. Rationale:

The master's program in Human Performance and Fitness is in need of additional electives to give students more of a choice in the courses they take outside of core
requirements. An understanding of statistics as they apply to exercise science is fundamental to both conducting and critically appraising research in the field. Moreover, comprehension of estimation- and magnitude-based statistical approaches is particularly important to appreciate the practical meaningfulness of findings in applied prescription.
4. Learning Outcomes (By the end of the course students will be expected to):

- Understand the underlying basis between various statistical methods
- Select the most appropriate test for a given study design
- Understand Bayesian theory and its application to statistical modeling
- Understand estimation- and magnitude-based approaches (i.e., point estimates, confidence intervals, effect sizes) and their interpretation for applied meaningfulness
- Integrate statistical theory into practical circumstances

5. Date of Departmental Approval: 11/30/2022

# LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK 

# DEPARTMENT OF MANAGEMENT AND BUSINESS INNOVATION 

## CURRICULUM CHANGE

Name of Program and Degree Award: Business Administration, MS
Hegis Number: 0502
Program Code: 32786
Effective Term: Spring 2024

1. Type of Change: Change in titles and course descriptions, and addition of a new course

## 2. From:

## Business Administration, MS

Lehman College has established a graduate program leading to the degree of Master of Science in Business (MSB) with a specialization in finance, human resource management, international business, marketing, or e-business. The objective of this curriculum is to satisfy the growing need in today's business environment for professionals who have developed the necessary expertise, insight, and vision in tackling the technical, interpersonal, and conceptual problems specific to their chosen managerial subfield. The program also constitutes a threshold into higher academic or professional pursuits, such as earning a doctorate in business or law.

Students wishing to do so may complete the degree program entirely online by taking online courses only.

Major Requirements: Admissions
Applicants to the MSB program must have earned their bachelor's degree from an accredited undergraduate institution in the U.S. or abroad. They must have a minimum grade point average of $3.0(B)$ or a minimum GPA of $2.8(B-)$ with at least two years of supervisory or managerial experience in the area of study.

They must have completed:
6 credits in Accounting;
6 credits in Economics; and
6 credits in Statistics

Applicants must submit a statement of career objectives, and two letters of recommendation. GMAT is optional in support of application.

International Students must additionally obtain a minimum total score of 500 or equivalent on the TOEFL and comply with the applicable financial and visa requirements. Those who have earned their baccalaureate from a college or university in which the language of instruction was exclusively English are exempted from the TOEFL requirement. The online-only MS program option is not available to students studying on an F1 Visa as they may take only one online course in a semester to maintain full-time student status. However, international students are eligible to participate in the online-format programs from their home countries.

Major Requirements: Overall
Earn at least 30 credits
Curriculum: The 30 -credit curriculum includes 12 credits in a common professional core, 12 credits in the chosen field of specialization, and 6 credits in two capstone seminar. Full-time students may complete their degree requirements within twelve to eighteen months, through in person and/or online courses.

Academic Excellence Fees for the Master of Science in Business are as follows: $\$ 65.00$ per credit up to a maximum of $\$ 325.00$ per semester.

## Major Requirements: Core Courses

Earn at least 12 credits from the following:
MSB 700 - Organizational Behavior
MSB 701 - Quantitative Analysis for Managers
MSB 702 - Economics Analysis for Managers
MSB 703 - Computer Based Analysis for Managers
Capstone Seminars
Earn at least 6 credits from the following:
MSB 795 - Seminar in Strategic Management
MSB 796 - Seminar in Ethical Issues in Management
Additional Comments:
International Business, Marketing, and E-Business Specializations: No students will be admitted to the International Business, Marketing or E-Business specialization until further notice.

Major Requirements - Finance Specialization
Earn at least 12 credits from the following:
MSB 710 - Investment Analysis
MSB 711 - Capital Budgeting
MSB 712 - Financial Statements Analysis
MSB 713 - International Financial Management

Major Requirements - Human Resources Management Specialization Earn at least 12 credits from the following:<br>MSB 730 - Human Resource Management<br>MSB 731 - Employee Training and Development<br>MSB 734 - International Human Resource Management<br>MSB 735 - Labor Management Relations<br>Major Requirements - International Business Specialization<br>Earn at least 12 credits from the following:<br>MSB 713 - International Financial Management<br>MSB 720 - Managing in a Global Environment<br>MSB 722 - International Marketing Management:-Culture, Law, and Politics<br>MSB 734 - International Human Resource Management<br>Major Requirements - Marketing Specialization<br>Earn at least 12 credits from the following:<br>MSB 720 - Managing in a Global Environment<br>MSB 721 - Applied Marketing Research<br>MSB 722 - International Marketing Management:-Culture, Law, and Politics<br>MSB 723 - Contemporary Issues in Marketing<br>Major Requirements - E-Business Specialization<br>Earn at least 6 credits from the following:<br>MSB 720 - Managing in a Global Environment<br>MSB 722 - International Marketing Management:-Culture, Law, and Politics<br>\section*{3. To:<br><br>Business Administration, MS}

Lehman College has established a graduate program leading to the degree of Master of Science in Business (MSB) with a specialization in finance, human resource management, international business, marketing, or e-business. The objective of this curriculum is to satisfy the growing need in today's business environment for professionals who have developed the necessary expertise, insight, and vision in tackling the technical, interpersonal, and conceptual problems specific to their chosen managerial subfield. The program also constitutes a threshold into higher academic or professional pursuits, such as earning a doctorate in business or law.

Students in most of our specializations may complete the degree program entirely online by taking online courses only.

Major Requirements: Admissions
Applicants to the MSB program must have earned their bachelor's degree from an accredited undergraduate institution in the U.S. or abroad. They must have a minimum grade point average of $3.0(B)$ or a minimum GPA of 2.8 (B-) with at least two years of supervisory or managerial experience in the area of study.

They must have completed:
6 credits in Accounting;
6 credits in Economics; and

## 6 credits in Statistics

Applicants must submit a statement of career objectives, and two letters of recommendation. GMAT is optional in support of application.

International Students must additionally obtain a minimum total score of 500 or equivalent on the TOEFL and comply with the applicable financial and visa requirements. Those who have earned their baccalaureate from a college or university in which the language of instruction was exclusively English are exempted from the TOEFL requirement. The online-only MS program option is not available to students studying on an F1 Visa as they may take only one online course in a semester to maintain full-time student status. However, international students are eligible to participate in the online-format programs from their home countries.

Major Requirements: Overall

## Earn at least 30 credits

Curriculum: The 30-credit curriculum includes 12 credits in a common professional core, 12 credits in the chosen field of specialization, and 6 credits in two capstone seminar. Full-time students may complete their degree requirements within twelve to eighteen months, through in person and/or online courses.

Academic Excellence Fees for the Master of Science in Business are as follows: \$65.00 per credit up to a maximum of $\$ 325.00$ per semester.

Major Requirements: Core Courses

## Earn at least 12 credits from the following:

MSB 700 - Organizational Behavior
MSB 701 - Quantitative Analysis for Managers
MSB 702 - Economics Analysis for Managers
MSB 703 - Computer Based Analysis for Managers
Capstone Seminars
Earn at least 6 credits from the following:
MSB 795 - Seminar in Strategic Management
MSB 796 - Seminar in Ethical Issues in Management
Additional Comments:

E-Business Specializations: No students will be admitted to the E-Business specialization until further notice.<br>Major Requirements - Finance Specialization Earn at least 12 credits from the following:<br>MSB 710 - Investment Analysis<br>MSB 711 - Capital Budgeting<br>MSB 712 - Financial Statements Analysis<br>MSB 713 - International Financial Management<br>Major Requirements - Human Resources Management Specialization<br>Earn at least 12 credits from the following:<br>MSB 730 - Human Resource Management<br>MSB 731 - Employee Training and Development<br>MSB 734 - International Human Resource Management<br>MSB 735 - Labor Management Relations<br>Major Requirements - International Business Specialization<br>Earn at least 12 credits from the following:<br>MSB 713 - International Financial Management<br>MSB 720 - Managing in a Global Environment<br>MSB 722 - International Marketing Management<br>MSB 734 - International Human Resource Management<br>Major Requirements - Marketing Specialization<br>Earn at least 12 credits from the following:<br>MSB 721 - Marketing Analytics<br>MSB 722 - International Marketing Management<br>MSB 723 - Strategic Marketing Management<br>MSB 724 - Social Media Marketing<br>Major Requirements - E-Business Specialization<br>Earn at least 6 credits from the following:<br>MSB 720 - Managing in a Global Environment<br>MSB 722 - International Marketing Management

## 4. Rationale:

The MSB program needs to update the concentration to reflect the changes and trends in the marketing field, and to equip our graduates better to get employment upon graduation.
5. Date of departmental approval: January 25, 2023

LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF MANAGEMENT AND BUSINESS INNOVATION

## CURRICULUM CHANGE

## 1. Type of Change: Title and the course description

2. From:

| Department(s) | Management and Business Innovation |
| :---: | :---: |
| Career | [ ] Undergraduate [ X ] Graduate |
| Academic Level | [ X]Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Business |
| Course Prefix \& Number | MSB 721 |
| Course Title | Applied Marketing Research |
| Description | Provides students with a complete understanding of the methods and techniques involved in marketing research. Students will become familiar with all stages of the market research process from initial problem definition through the presentation of final results. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not ApplicableRequiredEnglish CompositionMathematicsScience$\quad$Flexible <br> World Cultures <br> US Experience in its Diversity <br> Creative Expression <br> Individual and Society <br> Scientific World |

3. To:

| Department(s) | Management and Business Innovation |
| :---: | :---: |
| Career | [ ] Undergraduate [ X ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Business |
| Course Prefix \& Number | MSB 721 |
| Course Title | Marketing Analytics |
| Description | Marketing analytics to predict outcomes and systematically allocate resources in all stages of the market research process, from initial problem definition through the presentation of final results with data and analytics. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable Required English Composition Mathematics Science Flexible World Cultures US Experience in its Diversity Creative Expression Individual and Society Scientific World |

## 4. Rationale:

Organizations are inundated with data about consumer choices. But that wealth of information does not always translate into better decisions. Knowing how to interpret data is becoming more of a challenge as organizations become more reliant on "big data", and marketers in particular are increasingly expected to use analytics to inform and justify their decisions. Our analytics focus will give students the tools to measure brand and customer assets, understand regression analysis, and design experiments as a way to evaluate and optimize marketing campaigns. This course will also provide an
opportunity to improve students' statistical and analytical skills as well as build proficiency with statistical software applications.
5. Date of departmental approval: January 25, 2023

LEHMAN COLLEGE OF THE
CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF MANAGEMENT AND BUSINESS INNOVATION

## CURRICULUM CHANGE

## 1. Type of Change: Title and course description

2. From:

| Department(s) | Management and Business Innovation |
| :---: | :---: |
| Career | [ ] Undergraduate [ X] Graduate |
| Academic Level | [ X]Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Business |
| Course Prefix \& Number | MSB 722 |
| Course Title | International Marketing Management:- Culture, Law, and Politics |
| Description | Key concepts of international marketing; emerging marketing opportunities and threats; entry mode strategies of international marketing; global strategies for products, brands, pricing, distribution, logistics, and communication; policy framework for international trade; international trade finance and risk management; institutional infrastructure for export promotion; international marketing research, export procedures, and documentation; and the World Trade Organization and its implications on international marketing. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component |  |


$\qquad$ Scientific World
3. To:

| Department(s) | Management and Business Innovation |
| :---: | :---: |
| Career | [ ] Undergraduate [ X ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Business |
| Course Prefix \& Number | MSB 722 |
| Course Title | International Marketing Management |
| Description | Includes all aspects of international marketing, from emerging marketing opportunities and threats to global strategies for products, brands, pricing, distribution, logistics, and communication. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ]Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component |  |

## 4. Rationale:

International Marketing Management includes many aspects of global marketing such as brand management, customer analysis, product planning, etc. "Culture, Law, and Politics" is removed as these issues go beyond aspects of international marketing that this course is able to cover effectively.
5. Date of departmental approval: January 25, 2023

LEHMAN COLLEGE
OF THE
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## DEPARTMENT OF MANAGEMENT AND BUSINESS INNOVATION

## CURRICULUM CHANGE

## 1. Type of Change: Title and the course description

2. From:

| Department(s) | Management and Business Innovation |
| :---: | :---: |
| Career | [ ] Undergraduate [ X ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Business |
| Course Prefix \& Number | MSB 723 |
| Course Title | Contemporary Issues in-Marketing |
| Description | Procedures utilized in creating a commercially viable product market, from the initial needs analysis through marketing the product in local and international economy. The promotional process will be particularly emphasized, including its advertising, sales and trade promotion, personal selling, and communication components. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component |  |

3. To:

| Department(s) | Management and Business Innovation |
| :---: | :---: |
| Career | ] Undergraduate [ X ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Business |
| Course Prefix \& Number | MSB 723 |
| Course Title | Strategic Marketing Management |
| Description | Strategies in marketing management, from developing marketresponsive products to branding and effective communication, including scanning the market environment, measuring market demand and customer satisfaction, and understanding the consumer buying behavior. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X]No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) |  |
| General Education Component | $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale:

This course covers strategic aspects of marketing management, addressing the importance of understanding more than just traditional marketing principles. It is designed to help explain how to design effective, long-range marketing strategies that meet the demands of today's dynamic consumer environment.
5. Date of departmental approval: January 25, 2023

## LEHMAN COLLEGE

OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF MANAGEMENT AND BUSINESS INNOVATION

## CURRICULUM CHANGE

## 1. Type of change: New Course

2. 

| Department(s) | Management and Business Innovation |
| :---: | :---: |
| Career | [ ] Undergraduate [ X ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ]Remedial |
| Subject Area | Business |
| Course Prefix \& Number | MSB 724 |
| Course Title | Social Media Marketing |
| Description | Basics of social media training and use of tools and platforms in social media marketing. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> Scientific World |

## 3. Rationale:

Social media marketing is a rapidly developing area. According to Statista, as of April 2022, there were more than five billion internet users worldwide, which is 63.1 percent
of the global population. Of this total, 4.7 billion or 59 percent of the world's population were social media users, which makes it an unmissable way for brands to communicate with customers. For that reason alone, those who study social media marketing can expect to enter a career that's in high (and growing) demand.

Given that social media marketing is the common and popular way of conducting promotion and marketing, marketing students need to understand and become familiar with social media marketing tools and platforms which are used to reach, engage with, and convert potential buyers in ways that are more cost-effective than print or television media marketing. The objective of this course is to provide students with both knowledge and applied skills in using all major social media platforms like Facebook, Instagram, YouTube, TikTok etc.
4. Learning Outcomes (By the end of the course students will be expected to):

By the end of this course, students will be able to

- Define, explain and analyze the communication strategies, tools and platforms that are available in conducting social media marketing.
- Identify and use the appropriate social media platforms for conducting marketing campaigns
- Explain the advantages and limitations of each tool and platform for types of marketing campaigns.
- Develop a social media strategy and choose the appropriate tool(s)
- Develop and implement a social media content strategy that includes goals and measurable results.
- Discuss the measures employed and the impact of all social media efforts in conducting marketing campaigns

5. Date of Departmental Approval: January 25, 2023

## LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

## CURRICULUM CHANGE

1. Type of change: Remove experimental course attribute and convert to new course
2. From

| Department(s) | Middle and High School Education |
| :---: | :---: |
| Career | [ ] Undergraduate [ X ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | ESC |
| Course Prefix \& Number | ESC 511 |
| Course Title | Explorations and Practices in Academic Discourse Communities in Middle and High School Education |
| Description | Study of academic discourse communities, namely the arts, natural and social sciences, humanities, and education. Special emphasis on reading and writing across academic disciplines; quantitative and qualitative analyses; interpretation of academic content, and applications in educational settings. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) | Experimental |
| General Education Component | _X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society |

3. To:

| Department(s) | Middle and High School Education |
| :---: | :---: |
| Career | [ ] Undergraduate [ X ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | ESC |
| Course Prefix \& Number | ESC 511 |
| Course Title | Explorations and Practices in Academic Discourse Communities in Middle and High School Education |
| Description | Study of academic discourse communities, namely the arts, natural and social sciences, humanities, and education. Special emphasis on reading and writing across academic disciplines; quantitative and qualitative analyses; interpretation of academic content, and applications in educational settings. |
| Pre/ Co Requisites |  |
| Credits | 3 |
| Hours | 3 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale:

We are removing the experimental attribute for this course because it is being proposed as a required course for a new sequence of the MA in Spanish Teaching.
5. Date of Departmental Approval: December 8, 2022

## LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

## CURRICULUM CHANGE

Name of Program and Degree Award: Computer Science Education (MSED) Hegis Number: 0701.01 Computer \& Information Sciences, General, Teacher Program Code: TBD
Effective Term: Fall 2024

1. Type of Change: Change in graduate bulletin - addition of new MSED: Computer Science Education
2. From:

N/A
3. To:

Computer Science (All Grades) (35-36 credits)

## Computer Science Program Overview

This Master's degree will prepare candidates to teach Computer Science Education at all grade levels. Courses will be offered in an online or hybrid format. Candidates will complete a minimum of 105 clock hours of field work prior to student teaching and a fulltime student teaching experience.

## Program Plan

This Master's degree will prepare candidates to teach Computer Science Education at all grade levels. Courses will be offered in an online or hybrid format. Candidates will complete a minimum of 105 clock hours of field work prior to student teaching and a fulltime student teaching experience. Field hours and/or student teaching will include a combination of field experiences and student teaching in pre-kindergarten through grade 6 and grades 7 through 12. Course descriptions (below) are identical for the online and hybrid options. Course sequences for the two options are provided after the course descriptions.

Foundations ( 12 credits; 55 clock hours of field experience):
ESC 501(3) Psychological Foundations of Education
Course Description: (Closed to students who have taken ESC 301 or equivalent.) Cognitive and emotional development from childhood through adolescence; learning
theories; measurement and evaluation; inclusion of special student populations, and uses of relevant technology and software. Theories and research findings discussed in relation to classroom observations. Students will be responsible for assigned readings, lectures, class discussions, and field experiences.

ESC 502 (3) Historical Foundations of Education: A Multicultural Perspective
Course Description: Study of the historical development of education and schools within the context of various communities and families. Emphasis on the school as a sociocultural institution: issues of equity and bias, and the contributions of the major racial and ethnic groups, especially in New York City schools. Presentation of relevant technology and software.

ESC 506 (3) Special Needs Education in TESOL and Secondary Settings
Course Description: Identification, instruction, and assessment of culturally and linguistically diverse students with disabilities. Laws and regulations pertaining to students with disabilities; information on categories of disability; working with individualized education plans (IEPs); positive behavioral supports and interventions; individualized and differentiated instruction; effective co-teaching and collaboration. Fieldwork required.

ESC 529 (3) Language and Literacies Acquisition in Middle \& HS Education
Course Description: The teaching and acquisition of language and literacies through middle and high school content areas, including media literacy, with students of diverse linguistic backgrounds and language abilities. Curriculum development; current standards; inclusion of students with disabilities; and assessment.

Computer Science Education (6 credits; 50 clock hours of field experience)
ESC 537 (3) Principles of Computer Science Education I
Course Description: Introduction of teaching methodologies (including micro teaching), curriculum design, assessment and research issues in computer science education. Examination of current best practices in computer science pedagogy. Students will be responsible for assigned readings, lectures, class discussions and field experiences. Field work should include experiences in PreK-Grade 12 classrooms settings. Requires 25 hours of fieldwork.

ESC 538 (3) Principles of Computer Science Education II Course Description: Consideration of teaching approaches to human computer interaction, problem solving, web design, programming, data analysis, and robotics in secondary education settings. Includes best practices in teaching ways to analyze and translate creative solutions and artifacts in a project-based learning environment. Students will be responsible for
assigned readings, lectures, class discussions and field experiences. Field work should include experiences in PreK-Grade 12 classrooms settings.
Requires 25 hours of fieldwork.
Computer Science Content (12 credits)
CMP 566 (3) Computer Thinking for Educators
Course Description: A discussion of various computer science topics such as hamming codes, image representation, number systems, data representation, algorithms, artificial intelligence, cryptography, gates, flip-flops, adders. No previous programming experience is required. Prerequisite: MAT 172 or Department of Computer Science permission.

CMP 567 (3) Programming Methods I for Educators
Course Description: Structured computer programming using modern high-level programming languages. Includes console I/O, data types, variables, control structures, including iteration, arrays, function definitions and calls, parameterpassing, functional decomposition, and an introduction to objects. Debugging. Prerequisite: MAT 172 or Department of Computer Science permission.

CMP 568 (3) Programming Methods II for Educators
Course Description: Continuation of parameter passing with a focus on devising function definitions and tracing recursive calls. Object Oriented Programming techniques. Arrays. Sorting and searching algorithms as well as a comparison of their performance. Exceptions and Exception Handling. Text File I/O. GUI programming. Lab exercises include designing, writing and debugging programs using commercial IDEs. Prerequisite: CMP 567 or Departmental permission.

CMP 569 (3) Data Structures and Algorithms for Educators
Course Description: Abstract characterizations as well as the design and implementation of data structures such as arrays, stacks, queues, linked lists, binary search trees, heaps, hash tables and graphs along with algorithms that make use of such structures including algorithms for sorting, searching, will be studied. Algorithms will be analyzed for their asymptotic behavior in terms of time and space complexity. Implementation issues will be considered, and students will write programs that embody these data structures and algorithms. Prerequisite: CMP 568 or Department of Computer Science permission.

Clinical Capstone (4-6) credits; Full-Time Participation in School Setting
ESC 612 (3 credits) Seminar in Secondary and TESOL Student Teaching

Course Description: Analysis of problems or practices in secondary school teaching with an emphasis on the teaching and acquisition of language and literacies. Weekly seminar and assigned in-school activities required. Required state teacher certification assessments supported through the course. PREREQ: Departmental permission.

ESC 595 ( $1-3$ credits) Internship in Classroom Teaching
Course Description: (May be re-elected once, with advisor's permission). Designed for graduate students who teach full-time, the course provides on-site supervisory visits. Assigned in-school activities are required. PREREQ: An average grade of B or better in the Content Area Teaching Methods course(s); an overall index of at least 3.0; Departmental permission; and approval from the Professional Development Coordinator.

Students will be required to enroll in the ESC 595 2-credit option.
OR
ESC 596 (3 credits): Student Teaching in the Middle and High School Grades
Course Description: Student teaching in the middle and high school grades with on-site supervisory visits. Assigned in-school activities are required. PREREQ: An average grade of B or better in the Content Area Teaching Methods course(s); an overall GPA index of at least 3.0; Departmental permission; and approval from the Professional Development Coordinator.

Delivery Options
Option One: Standard (Hybrid) Sequence
Note: Online courses are designated as such (OL). Other courses will be offered in a hybrid format.

Fall 1
ESC 501
ESC 537 (OL)
ESC 506
Spring 1
CMP 567 (OL)
ESC 502
Fall 2
CMP 568 (OL)
ESC 529
ESC 538

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Spring 2
CMP }569\mathrm{ (OL)
CMP 566 (OL)
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## Fall 3

ESC 595/596
ESC 612
Option Two: Distance Format
Note: While all course meetings will be held in an online format, field/clinical hours must be completed in an educational setting.

Fall 1
ESC 501
ESC 537
ESC 506
Spring 1
CMP 567
ESC 502
Fall 2
CMP 568
ESC 529
ESC 538
Spring 2
CMP 569
CMP 566

Fall 3
ESC 595/596
ESC 612

## Program Admission Requirements:

1. An undergraduate degree from an accredited college or university.
2. A minimum $3.0(B)$ undergraduate GPA
a. B or better in pre-calculus
3. Two letters of recommendation
a. College or university instructor (required)
b. Second recommendation can be obtained from another instructor or

## supervisor in a work setting

4. A 500-word essay focused on career goals.
5. A current resume
6. Applicants who satisfy the preliminary admission requirements will be invited to an individual interview with the program coordinator. If a candidate does not meet preliminary admission requirements, they can request a meeting to discuss conditional admission.

## 4. Rationale:

The City University of New York, Office of the University Dean for Education compiled the following national and local statistics that underscore the need for teacher certification programs:

## National

-Just over half of high schools in the US offer a single computer science course and growth of CS offerings has slowed in recent years.
-Code.org names implementing clear certification pathways for CS teachers (over 300 high school CS teachers trained in NYC alone) and creating preservice programs in CS in their top policies to expand CS education -Less than half of New York high schools offer CS with 30 states offering more CS
Hispanic/Latina/Latino/Latinx high school students are 1.5 times less likely than their white and Asian peers to enroll in foundational computer science, even when they attend a school that offers it.
-Despite a national average participation rate of just $32 \%$ by young women in high school foundational computer science, three states (MD, MS, and SC) have above $40 \%$ participation in foundational computer science courses.
-Computing occupations are now the \#1 source of new wages in America
Local
-In 2022, New York averaged 28,623 open computing jobs each month
-These jobs have an average salary of $\$ 105,768$
-Only 6,861 graduates in Computer Science in 2019

CS for All, a major initiative of NYC Schools, established a target of ensuring that "every NYC student receives a meaningful unit of computer science education by 2025" (see Blueprint ). The biggest barrier to realizing this ambitious goal is staffing (https://ozobot.com/blog/cs4all-and-the-state-of-cs-in-new-york). According to a national demographic survey (https://www.zippia.com/computer-science-teacherjobs/demographics/) posted on Zippia.com, there are fewer than 5,000 certified/licensed computer science teachers in the US. NYC Schools serve one
million students; to provide all children in the district with high quality, computer science education is a daunting task.

In 2018, the New York State Board of Regents approved the creation of the Computer Science certificate. Currently, only one other CUNY institution is offering a course of study that leads to a MSED in Computer Science Education. As the senior college in the Bronx, we have the opportunity to address staffing shortages in this certification area in the most challenged borough in NYC.

The Computer Science Education program is a new program and should be added to the bulletin.
5. Date of departmental approval: October 19, 2022

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK <br> DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

## Request for Registration of a New Advanced Certificate Program

Name of Program and Degree Award: Computer Science Education Advanced Certificate

Proposed Hegis Number: 0701.01 Computer \& Information Sciences, General, Teacher Program Code: TBD
Effective Term: Fall 2024

1. Type of Change: New Advanced Certificate Program (Online)

## 2. From:

N/A
3. To:

## Advanced Certification Program in Computer Science Education

This Advanced Certificate will prepare candidates to teach Computer Science Education at all grade levels. Courses will be offered in an online format. Candidates will complete 7 courses and a minimum of 100 clock hours of field/clinical experience.

## Admissions Requirements:

1. Valid Initial/Provisional or Professional Teaching Certificate
2. Grades of B or better in a Pre-Calculus Course
3. Two letters of recommendation
a. College or university instructor (required)
b. Second recommendation can be obtained from another instructor or supervisor in a work setting
4. A 500 -word essay focused on career goals
5. A current resume
6. Applicants who satisfy the preliminary admission requirements will be invited to an individual interview with the program coordinator. If a candidate does not meet preliminary admission requirements, they can request a meeting to discuss conditional admission.

Program of Study:

The program of study consists of 21 credits ( 7 core courses). Program completion qualifies a teacher who currently holds a valid teaching certificate to add computer science to the base certificate.

Computer Science Education (9 credits; 100 clock hours of field experience)
ESC 537 (3) Principles of Computer Science Education I
Course Description: Introduction of teaching methodologies (including micro teaching), curriculum design, assessment and research issues in computer science education. Examination of current best practices in computer science pedagogy. Students will be responsible for assigned readings, lectures, class discussions and field experiences. Field work should include experiences in PreK-Grade 12 classrooms settings. Requires 25 hours of fieldwork.

ESC 538 (3) Principles of Computer Science Education II
Course Description: Consideration of teaching approaches to human computer interaction, problem solving, web design, programming, data analysis, and robotics in secondary education settings. Includes best practices in teaching ways to analyze and translate creative solutions and artifacts in a project-based learning environment. Students will be responsible for assigned readings, lectures, class discussions and field experiences. Field work should include experiences in PreKGrade 12 classrooms settings. Requires 25 hours of fieldwork.

## ESC 539 (3) Fieldwork in Computer Science Education

Course Description: Practicum focused on the design and implementation of assessments for performance tasks associated with computational thinking in PreKGrade 12 classrooms as well as the use of developmentally appropriate curriculum and instruction that requires an iterative process similar to the methods computer scientists and engineers use to bring ideas to life in a project-based environment. Requires 50 hours of fieldwork.

Computer Science Content (12 credits)
CMP 566 (3) Computer Thinking for Educators
Course Description: A discussion of various computer science topics such as hamming codes, image representation, number systems, data representation, algorithms, artificial intelligence, cryptography, gates, flip-flops, adders. No previous programming experience is required. Prerequisite: MAT 172 or Department of Computer Science permission.

CMP 567 (3) Programming Methods I for Educators

Course Description: Structured computer programming using modern high-level programming languages. Includes console I/O, data types, variables, control structures, including iteration, arrays, function definitions and calls, parameterpassing, functional decomposition, and an introduction to objects. Debugging. Prerequisite: MAT 172 or Department of Computer Science permission.

CMP 568 (3) Programming Methods II for Educators
Course Description: Continuation of parameter passing with a focus on devising function definitions and tracing recursive calls. Object Oriented Programming techniques. Arrays. Sorting and searching algorithms as well as a comparison of their performance. Exceptions and Exception Handling. Text File I/O. GUI programming. Lab exercises include designing, writing and debugging programs using commercial IDEs.Prerequisite: CMP 567 or Departmental permission.

CMP 569 (3) Data Structures and Algorithms for Educators
Course Description: Abstract characterizations as well as the design and implementation of data structures such as arrays, stacks, queues, linked lists, binary search trees, heaps, hash tables and graphs along with algorithms that make use of such structures including algorithms for sorting, searching, will be studied. Algorithms will be analyzed for their asymptotic behavior in terms of time and space complexity. Implementation issues will be considered, and students will write programs that embody these data structures and algorithms. Prerequisite: CMP 568 or Department of Computer Science permission.

## Course Sequence:

Fall 1
ESC 537: Principles of Computer Science Education I
CMP 567: Programming Methods I for Educators
Spring 1
ESC 538: Principles of Computer Science Education II
CMP 568: Programming Methods II for Educators
Fall 2
CMP 566: Computer Thinking for Educators
CMP 569: Data Structures and Algorithms for Educators
Spring 2
ESC 539: Principles of Project Design and Evaluation in Computer Science Education

## 4. Rationale:

National
-Just over half of high schools in the US offer a single computer science course and growth of CS offerings has slowed in recent years.
-Code.org names implementing clear certification pathways for CS teachers (over 300 high school CS teachers trained in NYC alone) and creating preservice programs in CS in their top policies to expand CS education -Less than half of New York high schools offer CS with 30 states offering more CS
Hispanic/Latina/Latino/Latinx high school students are 1.5 times less likely than their white and Asian peers to enroll in foundational computer science, even when they attend a school that offers it.
-Despite a national average participation rate of just 32\% by young women in high school foundational computer science, three states (MD, MS, and SC) have above $40 \%$ participation in foundational computer science courses.
-Computing occupations are now the \#1 source of new wages in America
Local
-In 2022, New York averaged 28,623 open computing jobs each month
-These jobs have an average salary of \$105,768
-Only 6,861 graduates in Computer Science in 2019
CS for All, a major initiative of NYC Schools, established a target of ensuring that "every NYC student receives a meaningful unit of computer science education by 2025" (see Blueprint ). The biggest barrier to realizing this ambitious goal is staffing (https://ozobot.com/blog/cs4all-and-the-state-of-cs-in-new-york). According to a national demographic survey (https://www.zippia.com/computer-science-teacherjobs/demographics/) posted on Zippia.com, there are fewer than 5,000 certified/licensed computer science teachers in the US. NYC Schools serve one million students; to provide all children in the district with high quality, computer science education is a daunting task.

In 2018, the New York State Board of Regents approved the creation of the Computer Science certificate. Currently, only one other CUNY institution is offering a course of study that leads to a MSED in Computer Science Education. As the senior college in the Bronx, we have the opportunity to address staffing shortages in this certification area in the most challenged borough in NYC.

The advanced certificate program will provide individuals, typically in-service teachers who hold a NYSED teacher certification, access to a pathway to earn an additional certification in computer science education. Teachers with dual teacher certification typically use both specialty areas to enhance their pedagogy and to increase their job options.
5. Date of Department Approval: October 19, 2022

# LEHMAN COLLEGE OF THE <br> CITY UNIVERSITY OF NEW YORK 

## DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

## CURRICULUM CHANGE

Name of Program and Degree Award: Advanced Certificate: Bilingual Extension grades 5-12
Hegis Number: 0899.00
Program Code: 42305
Effective Term: Summer 2023

1. Type of Change: Addition of Distance Education Format; Admission Requirements; Certification Requirements

## 2. From: <br> Advanced Certificate: Bilingual Extension grades 5-12 (12 credits)

This program is designed for teachers who hold New York State secondary teacher certification grades 5-12; who are proficient in English and in a home language other than English; and who seek a bilingual extension to teach their certification area in both languages.

## Admission Requirements

1. A bachelor's degree (or its equivalent) from an accredited college or university.
2. An undergraduate or master's degree index of at least 3.0.
3. New York State secondary teacher certification grades 5-12.
4. One (1) letter of recommendation
5. Demonstrate proficiency in English and in the home language other than English by completing an interview and career essays in both languages.
6. Have successfully completed a course in multicultural or cultural perspectives (at least 3 credits). Candidates may take ESC 769 or another course selected in consultation with the adviser to meet this requirement.
7. Meet additional Department, College, and State requirements, if any.

## Certificate Requirements

Students must consult with an adviser in the Bilingual Extension grades 5-12 program before beginning their studies. During their first semester, matriculated students are required to plan their graduate program with the adviser. To successfully complete the program, students must complete the curriculum outlined below. Candidates for the Bilingual Extension grades $5-12$ are expected to pass the Bilingual Education

Assessment (BEA) before completing nine (9) program credits or the first two semesters of matriculation.

## Curriculum

Bilingual Extension: Middle and High School Education, Grades 5-12 ESC 757 (3), ESC 759 (3), ESC 761 (3), ESC 763 (3) TOTAL: 12 crs.

## 3. To: <br> Advanced Certificate: Bilingual Extension grades 5-12 (12 credits)

This program is designed for teachers who hold New York State secondary teacher certification grades 5-12; who are proficient in English and in a home language other than English; and who seek a bilingual extension to teach their certification area in both languages.

Candidates wishing to do so may complete the degree program entirely online by taking online courses only.

## Admission Requirements

1. A bachelor's degree (or its equivalent) from an accredited college or university. 2. An undergraduate or master's degree index of at least 3.0.
2. New York State secondary teacher certification grades 5-12 (except ESOL or World Languages).
3. One (1) letter of recommendation
4. Demonstrate proficiency in English and in the home language other than English by completing an interview and career essays in both languages.
5. Have successfully completed a course in multicultural or cultural perspectives (at least 3 credits). Candidates may take ESC 769 or another course selected in consultation with the adviser to meet this requirement.
6. Meet additional Department, College, and State requirements, if any.

## Certificate Requirements

Students must consult with an adviser in the Bilingual Extension grades 5-12 program before beginning their studies. During their first semester, matriculated students are required to plan their graduate program with the adviser. All candidates must complete the curriculum outlined below. In order to be recommended for the Bilingual Extension, candidates must complete the Advanced Certificate: Bilingual Extension 5-12 program with a cumulative index of 3.0 or better, pass the Bilingual Education Assessment (BEA), and meet any additional New York State requirements.

## Curriculum

OPTION ONE: Hybrid/Campus Program

Bilingual Extension: Middle and High School Education, Grades 5-12: ESC 757 (3), ESC 759 (3), ESC 761 (3), ESC 763 (3) TOTAL: 12 crs.

## OPTION TWO: Online Program (Courses offered as asynchronous or synchronous via video instruction)

Bilingual Extension: Middle and High School Education, Grades 5-12: ESC 757 (3), ESC 759 (3), ESC 761 (3), ESC 763 (3) TOTAL: 12 crs.

## 4. Rationale:

The addition of the distance education format for the Advanced Certificate will not affect learning objectives of the existing program since the delivery mode of the courses is the only change implemented. The distance learning format will allow students to complete the program by taking all courses online. The department will offer at least one section of each course online.

The NYS Bilingual Extension cannot extend ESOL or World Languages certifications, so these exceptions have been included in the admission requirements. This change does not affect learning outcomes, but it does clarify who is eligible for the program.

The description of certification requirements was clarified to provide more accurate information, but these changes do not affect the program's learning outcomes.
5. Date of departmental approval: December 8, 2022

## LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

## CURRICULUM CHANGE

Name of Program and Degree Award: Spanish M.A.
Hegis Number: 1105.00
Program Code: 33999
Effective Term: Fall 2023

1. Type of Change: Program title; degree requirements

## 2. From:

Teaching Spanish 7-12 M.A.
This program is designed for candidates seeking a Master's degree in Teaching Spanish. Graduates of this program are eligible for New York State Gertification in Feaching Spanish grades 7-12 upon completion of additional New York State Education Requirements. Applicants will apply to one of the 2 following sequences based on their qualifications:

Sequence 1 ( $36-39$ credits). Candidates who seek initial New York State certification in Feaching Spanish grades 7-12

Sequence 2 ( 36 credits). Transitional B candidates who seek initial New York State certification in Teaching Spanish grades 7-12

Subplan Sequence 3 (erroneously listed on CUNYfirst)
Subplan TE7TH12 (erroneously listed on CUNYfirst)

## Admission Requirements

1. A bachelor's degree from an accredited college or university with a Spanish major (or its equivalent) and an overall index of 3.0 or higher. In order to be recommended by Lehman College for certification in Teaching Spanish, candidates must have completed a core of liberal arts/sciences courses in addition to their major (see adviser for details).
2. Demonstrate the ability to successfully pursue graduate study by earning a B or better in Spanish coursework.
3. Have completed 24 credits in advanced (300-level and above) undergraduate Spanish courses (including a minimum of 12 advanced credits in literature courses conducted in Spanish). If these requirements are not met, additional undergraduate
courses must be completed before admission to the program and after consultation with the Department of Languages and Literatures.
4. Submit scores from the Spanish Content Specialty Test (CST).
5. If conditionally admitted, meet conditions starting in the first semester and finishing in no more than three consecutive semesters.
6. For Sequence 2, be eligible for a valid New York State Transitional B certificate in Teaching Spanish grades 7-12.
7. Two letters of recommendation.
8. Report to the Department of Languages and Literatures for consultation with adviser and assessment of Spanish language skills prior to matriculation.
9. Oral proficiency at the Advanced Low level on the American Council on Teaching Foreign Languages (ACTFL) Advanced Level Check Oral Proficiency Interview (OPI). Candidates who do not score Advanced Low are accepted conditionally and must redo and pass the interview before completion of 18 credits.
10. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing.

## Degree Requirements

Students must consult with an adviser in the M.A.Teaching Spanish program before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser. All students must complete the curriculum corresponding to one of the sequences below.

Sequence 1 (36-39 crs.). Candidates who seek initial New York State certification in Spanish grades 7-12

## Educational Foundations (12 crs.)

Credits
ESC 501 Psychological Foundations of Education
ESC 502 Historical Foundations of Education: A Multicultural Perspective

Language and Literacies Acquisition in Secondary Education

Special Needs Education in TESOL and Secondary Settings

Methods of Teaching Spanish (6 crs.)
Credits
Teaching Foreign Language in Middle and High School
ESC 562 EnglishTeaching Language Arts in Languages Other than3
Spanish Language, Literature, and Culture (15 crs.)
Credits
SPA 601 Hispanic Linguistics ..... 3
SPA 618 Spanish Dialectology and Sociolinguistics ..... 3
SPA 619 Hispanic Culture ..... 3
Electives ..... 6
Electives: 6 credits of electives to be determined in consultation with the adviser fromthe Department of Languages and Literatures.
Student Teaching or Teaching Internship and Seminar (3-6 crs.)
Teaching Internship for full-time Spanish teachers:
Credits
ESC 595 Internship in Classroom Teaching ..... 1-3
ESC611 Teaching Internship Seminar in Secondary Education ..... 4
Or Student Teaching in Spanish:
Credits
ESC 596 Student Teaching in the Middle and High School Grades ..... 3
ESC 612 Seminar in Secondary Student Teaching. ..... 3
Sequence 2 ( 36 crs.) Transitional B candidates who seek initial New York State certification in Spanish grades 7-12
Educational Foundations (12 crs.)
Credits
ESC 504 Psychological Foundations of Education ..... 3
Historical Foundations of Education: A Multicultural Perspective ..... 3
ESC 529 Language and Literacies Acquisition in Secondary Education ..... 3
Special Needs Education in TESOL and Secondary Settings
ESC 506 ..... 3
Methods of Teaching Spanish (6-crs.)
Credits
ESC 524 Teaching Foreign Language in Middle and High School ..... 3
Teaching Language Arts in Languages Other than English ..... 3
ESC 562
Spanish Language, Literature, and Culture (15-crs.)
Gredits
SPA 601 Hispanic Linguistics ..... 3
SPA 618 Spanish Dialectology and Sociolinguistics ..... 3
SPA 619 Hispanic Culture ..... 3
Electives ..... 6
Electives: 6 credits of electives to be determined in consultation with the adviser fromthe Department of Languages and Literatures.
Teaching Internship
Credits
ESC 595 Internship in Classroom Teaching ..... 1-3
ESC 611 Teaching Internship Seminar in Secondary Education ..... 4
In addition to successful completion of coursework with an overall GPA of 3.0, all candidates must pass a comprehensive Spanish examination with the Department of Languages and Literatures in order to graduate.

## Additional Requirements for Certification in Teaching-Spanish 7-12:

In order to be recommended for łnitial Gertification in teaching Spanish 7-12, candidates must (a) have a bachelor's degree that meets New York State requirements for a core in the liberal arts and sciences (please see adviser for details); (b) for candidates seeking
initial certification, present passing scores on the following New York State examinations: EAS,edTPA and Spanish Content Specialty Test; for candidates certified prior to April 30, 2014, present passing scores only on the Spanish Content Specially Fest; and (c) meet any additional New York State requirements.

In order to qualify for Professional Certification in teaching Spanish 7-12, candidates must successfully complete the master's program, must have completed three years of full-time teaching in a public or private school which serves grades 7-12, and must meet any additional Now York State requirements.

Qualified Teaching Spanish 7 -12 candidates may also apply to the Advanced Gertificate: Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL-certified upon successful completion of that program of study.

## Nonmatriculants

Nonmatriculants must meet with an adviser from the Department of Middle and High School Education and must have their skills assessed by an adviser from the Department of Languages and Literatures prior to registration.

## 3. To:

## M.A. Spanish Teaching 7-12

This program is designed for candidates seeking a Master's degree in Spanish Teaching 7-12. Graduates of this program are eligible for New York State certification in Spanish 7-12 upon completion of additional New York State Education Requirements. Applicants will apply to one of the 2 following sequences based on their qualifications:

Sequence 1: Spanish Major (38-39 credits). Candidates who seek initial New York State certification in Spanish 7-12

Sequence 2: Undergraduate Education Minor (32-33 credits). Candidates with an MHSE minor (or equivalent) who seek initial New York State certification in Spanish 712

## Admission Requirements

1. A bachelor's degree from an accredited college or university with a Spanish major (or its equivalent) and an overall index of 3.0 or higher.
2. Demonstrate the ability to successfully pursue graduate study by earning a B or better in Spanish coursework.
3. Have completed 24 credits in advanced (300-level and above) undergraduate Spanish courses (including a minimum of 12 advanced credits in literature courses conducted in Spanish). If these requirements are not met, additional undergraduate courses must be completed before admission to the program and after consultation with the Department of Languages and Literatures.
4. Two letters of recommendation.
5. Report to the Department of Languages and Literatures for consultation with adviser and assessment of Spanish language skills prior to matriculation.
6. Oral proficiency at the Advanced Low level on the American Council on Teaching Foreign Languages (ACTFL) Advanced Level Check Oral Proficiency Interview (OPI). Candidates who do not score Advanced Low are accepted conditionally and must redo and pass the interview before completion of 18 credits.
7. For Sequence 2, have completed 12 credits (education minor) in the Department of Middle and High School. Education with a minimum grade point average of 3.0.
8. Meet with the MHSE/MA Spanish Teaching adviser to discuss conditions for sequence eligibility.

## Degree Requirements

Students must consult with an adviser in the M.A. Spanish Teaching 7-12 program before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser. All students must complete the curriculum corresponding to one of the 2 sequences below.

## Sequence 1: Spanish Major ( $\mathbf{3 8}-39$ crs.). Candidates who seek initial New York State certification in Spanish 7-12

Educational Foundations (12 crs.)
Credits
ESC 501 Psychological Foundations of Education
Historical Foundations of Education: A Multicultural Perspective

Language and Literacies Acquisition in Secondary Education

ESC 506 Teaching Students with Disabilities

Methods of Teaching Spanish (6 crs.)
Credits
ESC 524 Teaching Foreign Language in Middle and High School

Teaching Language Arts in Languages Other than English

Spanish Language, Literature, and Culture (15 crs.)
SPA 601 Hispanic Linguistics ..... 3
SPA 618 Spanish Dialectology and Sociolinguistics ..... 3
SPA 619 Hispanic Culture ..... 3
Electives ..... 6
Note on Electives: The 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.
Student Teaching or Teaching Internship and Seminar (⿹-6 crs.)
Teaching Internship for full-time Spanish teachers:Credits
ESC 595 Internship in Classroom Teaching ..... 1-3*
ESC 612 Seminar in Secondary Student Teaching ..... 3
*Candidates enroll in ESC 595 for 2 credits.
Or Student Teaching in Spanish:
ESC 596 Student Teaching in the Middle and High School Grades ..... 3
ESC 612 Seminar in Secondary Student Teaching. ..... 3
Sequence 2: Undergraduate Education Minor (32-33 crs.). Candidates with aneducation minor who seek initial New York State certification in Spanish 7-12Methods of Teaching Spanish (9 crs.)Credits
ESC 524 Teaching Foreign Language in Middle and High School ..... 3
ESC 562 Teaching Language Arts in Languages Other than
English ..... 3
ESC 760 Second Language Learning and Teaching ..... 3
Writing / Literacy (3 crs.)
ESC 511 Explorations and Practices in Academic Discourse Communities

Spanish Language, Literature, and Culture (15 crs.)

## Credits

SPA 601 Hispanic Linguistics $\underline{3}$
SPA 618 Spanish Dialectology and Sociolinguistics $\underline{3}$
SPA 619 Hispanic Culture $\underline{3}$
Electives $\underline{6}$
Note on Electives: The 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

## Student Teaching or Teaching Internship and Seminar (5-6 crs.)

## Teaching Internship for full-time Spanish teachers:

|  |  | Credits |
| :--- | :--- | ---: |
| ESC 595 | Internship in Classroom Teaching | $1-3^{*}$ |
| ESC 612 | Seminar in Secondary Student Teaching | $\underline{3}$ |
| ${ }^{*}$ Candidates enroll in ESC 595 for 2 credits. |  |  |

Or Student Teaching in Spanish:

ESC 596

Student Teaching in the Middle and High School
Grades
ESC 612 Seminar in Secondary Student Teaching. ..... 3

In addition to successful completion of coursework with an overall GPA of 3.0, all candidates must pass a comprehensive Spanish examination with the Department of Languages and Literatures in order to graduate.

## Additional Requirements for Certification in Spanish Teaching 7-12:

In order to be recommended for initial certification in Spanish 7-12, candidates must present passing scores on the following New York State-examinations: EAS and Spanish Content Specialty Test and meet any additional New York State requirements.

Nonmatriculants

Nonmatriculants must meet with an adviser from the Department of Middle and High School Education and must have their skills assessed by an adviser from the Department of Languages and Literatures prior to registration.

## 4. Rationale:

1. The State Program title is being changed from "Spanish" to "Spanish Teaching 7-12" to distinguish it from the Spanish Literature program.
2. The correct State certification title "Spanish 7-12" has been included throughout.
3. When the Transitional B program was created and approved in 2007, it was incorrectly listed in the bulletin as Sequence 2 of the regular certification MA
Spanish Teaching 7-12. However, the Transitional B program has a separate New York State program code, so we are removing the Transitional B from the MA Spanish Teaching 7-12 and listing it instead as a separate program, the MA Spanish Teaching 7-12 (Trans B). This change will not affect learning outcomes, but it does align the bulletin information with the State-approved program registration.
4. To correct an administrative oversight, we are deleting two other incorrect subplans that appear in CUNYfirst: Sequence 3 is redundant to our current proposal while the fourth subplan ("TE7TH12") is an obsolete legacy subplan. Neither of these subplans is relevant or impacts any learning outcomes or students since no one is enrolled.
5. The new Sequence 2 allows for a seamless transition from undergraduate to graduate study and eliminates redundant course content.
6. For clarity, we propose labeling our remaining subplans as follows: Sequence 1: Spanish Major; and Sequence 2: Undergraduate Education Minor.
7. ESC 612 ( 3 crs ) is now required in lieu of ESC 611 (1 cr) for all prospective Spanish teachers to ensure they have adequate mentoring and support. This raises the total credits for Sequence 1 from 36-39 to 38-39.
8. A footnote was added to clarify that full-time teachers of Spanish must enroll in ESC 595 for 2 credits only, but this does not affect learning outcomes.
9. The course title for ESC 506 was revised and approved prior, and we are simply updating this information.
10. Obsolete requirements have been removed in accordance with guidance from the New York State Department of Education:

- Admissions: liberal arts/ sciences core courses; GRE exam
- Certification requirement: the EdTPA Exam

5. Date of departmental approval: January 18, 2023

# LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK <br> DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION <br> CURRICULUM CHANGE 

Name of Program and Degree Award: Alt Cert: Spanish Education (Trans B) MA Hegis Number: 0899.50
Program Code: 31655
Effective Term: Fall 2023

1. Type of Change: Program title; degree requirements; adding missing program to the graduate bulletin
2. From:

Sequence 2 ( 36 crs.) Transitional B candidates who seek initial New York State certification in Spanish grades 7-12

Additional Subplans "Sequence 1 and Sequence 2" (erroneously listed on CUNYfirst)
Educational Foundations (12 crs.)
Credits
ESC 501 Psychological Foundations of Education 3

ESC 502
Historical Foundations of Education: A Multicultural Perspective

Language and Literacies Acquisition in Secondary Education3

ESC 506

Special Needs Education in TESOL and Secondary
Settings

Methods of Teaching Spanish (6 crs.)

Credits
ESC 524 Teaching Foreign Language in Middle and High School

Teaching Language Arts in Languages Other than English

Spanish Language, Literature, and Culture (15 crs.)
SPA 601 Hispanic Linguistics ..... 3
SPA 618 Spanish Dialectology and Sociolinguistics ..... 3
SPA 619 Hispanic Culture ..... 3
Electives ..... 6

Electives: 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

Teaching Internship

## Credits

ESC 595 Internship in Classroom Teaching 1-3

ESC 611 Teaching Internship Seminar in Secondary Education

In addition to successful completion of coursework with an overall GPA of 3.0, all candidates must pass a comprehensive Spanish examination with the Department of Languages and Literatures in order to graduate.

## Additional Requirements for Certification in Teaching-Spanish 7-12:

In order to be recommended for Initial Certification in teaching Spanish 7-12, candidates must (a) have a bachelor's degree that meets New York State requirements for a core in the liberal arts and sciences (please see adviser for details); (b) for candidates seeking initial certification, present passing scores on the following New York State examinations: EAS,edTPA and Spanish Content Specialty Test, for candidates certified prior to April 30, 2014, present passing scores only on the Spanish Content Specialty Test; and (c) meet any additional New York State requirements.

In order to qualify for Professional Certification in teaching Spanish 7-12, candidates must successfully complete the master's program, must have completed three 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 Teaching Spanish 7-12 candidates may also apply to the Advanced Gertificate: Teaching English to Speakers of Other Languages (TESOLP-12), and become ESOL-certified upon successful completion of that program of study.

## Nonmatriculants

Nonmatriculants must meet with an adviser from the Department of Middle and High School Education and must have their skills assessed by an adviser from the Department of Languages and Literatures prior to registration.
3. To:
M.A. Spanish Teaching 7-12 (Trans B)

This program is designed for Transitional B / alternative certification candidates seeking a Master's degree in Spanish Teaching 7-12. Graduates of this program are eligible for New York State certification in Spanish 7-12 upon completion of additional New York State Education Requirements.

## Admission Requirements

1. A bachelor's degree from an accredited college or university with a Spanish major (or its equivalent) and an overall index of 3.0 or higher.
2. Demonstrate the ability to successfully pursue graduate study by earning a B or better in Spanish coursework.
3. Have completed 24 credits in advanced (300-level and above) undergraduate Spanish courses (including a minimum of 12 advanced credits in literature courses conducted in Spanish). If these requirements are not met, additional undergraduate courses must be completed before admission to the program and after consultation with the Department of Languages and Literatures.
4. Be eligible for a valid New York State Transitional B certificate in Spanish 7-12.
5. Two letters of recommendation.
6. Report to the Department of Languages and Literatures for consultation with adviser and assessment of Spanish language skills prior to matriculation.
7. Oral proficiency at the Advanced Low level on the American Council on Teaching Foreign Languages (ACTFL) Advanced Level Check Oral Proficiency Interview (OPI). Candidates who do not score Advanced Low are accepted conditionally and must redo and pass the interview before completion of 18 credits.

## Degree Requirements

Students must consult with an adviser in the M.A. Spanish Teaching 7-12 (Trans B) program before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser. All students must complete the curriculum below.

## M.A. Spanish Teaching 7-12: (Trans B) Curriculum (38 crs.)

## Educational Foundations (12 crs.)

Credits
ESC 501 Psychological Foundations of Education

ESC 502
Historical Foundations of Education: A Multicultural Perspective

## 3

3
ESC 529 Language and Literacies Acquisition in Secondary ..... 3 Education
ESC 506 Teaching Students with Disabilities ..... 3
Methods of Teaching Spanish (6 crs.)
Credits
ESC 524 Teaching Foreign Language in Middle and High School
Teaching Language Arts in Languages Other than English
Credits
SPA 601 Hispanic Linguistics ..... 3
SPA 618 Spanish Dialectology and Sociolinguistics ..... 3
SPA 619 Hispanic Culture ..... 3
Electives ..... 6
6 credits of electives to be determined in consultation with the adviser from theDepartment of Languages and Literatures.
Teaching Internship
Credits
ESC 595 Internship in Classroom Teaching ..... 1-3*
ESC 612 Seminar in Secondary Student Teaching ..... 3
*Candidates enroll in ESC 595 for 2 credits.
In addition to successful completion of coursework with an overall GPA of 3.0, allcandidates must pass a comprehensive Spanish examination with the Department ofLanguages and Literatures in order to graduate.

## Additional Requirements for Certification in Spanish Teaching 7-12:

In order to be recommended for initial certification in Spanish 7-12, candidates must present passing scores on the following New York State examinations: EAS and Spanish Content Specialty Test and meet any additional New York State requirements. Nonmatriculants

Nonmatriculants must meet with an adviser from the Department of Middle and High School Education and must have their skills assessed by an adviser from the Department of Languages and Literatures prior to registration.

## 4. Rationale:

1. We propose changing the State Program Title from "ALT CERT:SPANISH EDUCATION (TRANS B)" to M.A. Spanish Teaching 7-12 (Trans B) to make it consistent with the proposed new title of the regular certification program, the M.A. Spanish Teaching 7-12.
2. The correct State certification title "Spanish 7-12" has been included throughout.
3. When the Transitional B program was created and approved in 2007, it was incorrectly listed in the bulletin as Sequence 2 of the regular certification MA Spanish Teaching 7-12. However, the Transitional B program has a separate New York State program code, so we are removing the Transitional B from the MA Spanish Teaching 7-12 and and listing it instead as a separate program, the MA Spanish Teaching 7-12 (Trans B). This change will not affect learning outcomes, but it does align the bulletin information with the State-approved program registration.
4. In addition, there are currently two subplans attached to this program. We propose deleting these subplans, which appear to have been an administrative oversight. These subplans are not relevant and will not impact any learning outcomes or students since no one is enrolled.
5. ESC $612(3 \mathrm{crs})$ is replacing ESC 611 ( 1 cr ) for all prospective Trans B Spanish teachers to ensure they have adequate mentoring and support.
6. A footnote was added to clarify that candidates must enroll in ESC 595 for 2 credits only, but this does not affect learning outcomes.
7. The course title for ESC 506 was revised and approved prior, and we are simply updating this information.
8. Obsolete requirements have been removed in accordance with guidance from the New York State Department of Education:

- Admissions: liberal arts/ sciences core courses; GRE exam
- Certification requirement: the EdTPA Exam

5. Date of departmental approval: October 19, 2022

# INFORMATIONAL ITEM <br> Review of Resolution for CUNY Board 



## Board of Trustees of The City University of New York

# RESOLUTION TO <br> Authorize Lehman College Ed.D. Program in Organizational Leadership, Development and Change to Charge an Annual Program Fee 

March/2023

WHEREAS, Lehman College ("Lehman") provides undergraduate and graduate studies in liberal arts and sciences and professional education within a dynamic research environment; and

WHEREAS, In February of 2020, the Lehman Department of Counseling, Leadership, Literacy and Special Education in the School of Education's proposed Doctor of Education ("Ed.D.") in Organizational Leadership, Development and Change ("EDOLDC") was approved by the department's faculty; and

WHEREAS, In March of 2020, the Lehman Senate Committee on Graduate Studies, comprised of faculty and student leaders, approved the Ed.D. program and in May of 2020, the Ed.D. program was approved by the Lehman Senate; and

WHEREAS, In December of 2020, the CUNY Board of Trustees approved the Ed.D. program and authorized the CUNY Executive Vice Chancellor and University Provost to submit the Ed.D. program to the New York State Department of Education ("NYSED"); and in July of 2022, NYSED and the Office of Governor Kathy Hochul approved Lehman's Ed.D. in EDOLDC.

WHEREAS, The Lehman Ed.D. program is one of only three Ed.D. degrees offered at CUNY, and is the first online, interdisciplinary doctoral program of its kind offered by a CUNY institution. The first Lehman Ed.D. cohort will begin in fall 2023; and

WHEREAS, The Ed.D. program is primarily held online, but there are three (3) mandatory in-person, on-site intensive residencies that must be completed. Each residency is a full-
day and on-campus immersive set of workshops that focus on research and academic support. This learning model promises both local and regional impact by making a highquality, affordable advanced leadership degree accessible to working professionals in nearby Bronx and Westchester counties, New York City, the Tri-State Area, and nearby states like Pennsylvania; and

WHEREAS, The Ed.D. annual in-person, on-campus intensive weekend residency requirement requires an annual program fee to cover the costs of instructional materials/books, leadership assessment tools and staff for the programs and workshops associated with the weekend residency; and

WHEREAS, The fee required to cover the costs of the annual in-person, on-campus intensive weekend residency was included in the tuition and fee schedule in the approved proposal,

## NOW, THEREFORE, BE IT

RESOLVED, That the Board of Trustees of The City University of New York authorizes Lehman College to charge students registered for the Ed.D. in EDOLDC an annual program fee of $\$ 225$ once per year to cover the costs associated with the annual inperson, campus-based intensive weekend residency component of the program.

EXPLANATION: The annual $\$ 225$ program fee will be charged at the start of each academic year. Each student enrolled in the program would pay this once-per-year program fee each year of the three-year program. The fee will only be charged to students in the fall semester and will be used to fund costs associated with the once-per-year inperson, one-day on-site intensive weekend residency, which includes instructional materials/books, staff to present programs and run workshops, leadership assessments, and meals.

## RATIONALE:

This program fee was already approved by the following bodies:

- Department of Counseling, Leadership, Literacy and Special Education: February 10, 2020
- Graduate Studies Committee: March 4, 2020
- Lehman College Senate: May 6, 2020
- CUNY's Board of Trustees: December 14, 2020
- New York State Education Department: Summer 2022

Given the length of time that has passed, before adding the resolution to CUNY's Board calendar, the chancellery asked that an updated review be done to ensure that no changes are needed. Graduate Studies has reviewed the program fee, its proposed use and its appropriateness and has approved of it as is.

GRADUATE STUDIES COMMITTEE APPROVAL: February 1, 2023

# Governance Committee Report March 1 ${ }^{\text {st }}, 2023$ 

1. Standing Committee Faculty Nominations
a. Nomination Solicitation Sent March 1st
b. Nominations Due March 15th
2. Senator At-Large Elections
a. Every 2 Years Senator At-Large Terms Expire (Odd Years)
b. Governance Committee Oversees the Election Process
c. All Done Using LimeSurvey
d. Weighted Nomination Round: March $29^{\text {th }}-$ April 17 ${ }^{\text {th }}$
e. Weighted Election Round: May $1^{\text {st }}-$ May $15^{\text {th }}$
3. Student Committee Members
a. Replacements Nominated By Students, Endorsed By Governance
b. Any Additional Nominations
c. Move To A Vote
4. Next Governance Committee Meeting: Monday, March $6^{\text {th }}$ at 1 pm via Zoom.

# Senate Nominations March 

Governance Committee

1. Aryeh Kalb
2. Alesha Alli
3. Frankelly Marmolejos - FRANKELLY.MARMOLEJOS@lc.cuny.edu

Admission Evaluations and Academic Standards

1. Taslima Khatua
2. Hillary Palacios
3. Zef Amargo - ZEF.AMARGO@LC.CUNY.EDU

Undergraduate Curriculum Committee

1. Marianni M. Gil
2. Jose Pedro Heyaime
3. Kimarea Brown - KIMAREA.BROWN@LC.CUNY.EDU

Graduate Studies Committee

1. Patricia MacDonna
2. Selina Seeram
3. Monique Murray - monique.murray1@lc.cuny.edu

Academic Freedom Committee

1. Oluwatimilehin O. Akinkuolie-Ibidapo
2. Mika Serrantes
3. Stefanie Brijmohan - stefanie.brijmohan@lc.cuny.edu

Library, Technology, and Telecommunications Committee

1. Julietta Moin
2. Benedicta Osei
3. Semia Rodrigues - semia.rodrigues@lc.cuny.edu
4. Aziza N. Busby
5. Vasundara Kurup
6. Maria Contreras - MARIA.CONTRERAS1@LC.CUNY.EDU

Budget and Long-Range Planning Committee

1. Xavier T. Santiago
2. Nusrat Alam
3. Steven Rivera - Steven.rivera3@lc.cuny.edu

Assessment Committee

1. Keisha Ramirez
2. Maimouna Sakho
3. Joseph Clapp - joseph.clapp@lc.cuny.edu

Committee on Admissions, Evaluations and Academic Standards (CAEAS) Report
Senate Meeting: March 1, 2023
The CAEAS committee met on Wednesday, February 8, 2023, at 4-5pm. A quorum was present.

The committee heard a proposal to reintroduce the Bachelor of Science in Public Health program at Lehman, using a minimum 2.7-2.9 GPA matriculation requirement. The committee voted unanimously to approve the proposal and now brings it to the Senate floor for a vote.

# LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK 

# DEPARTMENT OF HEALTH EQUITY, ADMINISTRATION \& TECHNOLOGY 

## CURRICULUM CHANGE

Name of Program and Degree Award: Public Health, BS
Hegis Number: 1214.00
Program Code: 37993.00
Effective Term: Spring 2024

1. Type of Change: Degree Requirements, Distance Education

## 2. From:

## Public Health, B.S.(48-Credit Major)

The Bachelors of Science in Public Health (BSPH) program prepares students for the professional practice, service and advance training like graduate school. The program trains students in core methods, theories and concepts so that they may apply these to improve health access and equity. The program has a particular emphasis on the health needs of global-communities, and through international collaborations at Lehman Gollege, students may add a global experience to their training.

Students complete a core course series, program track courses, and an internship experience to apply their knowledge in a local- or global setting. Also, students take a eapstone seminar as a culminating learning experience for the program.

The program is designed to prepare students for careers in public health such as: Peace Corps, city health agencies, nonprofit organizations, internationalorganizations, and higher educational institutions. After completing the program, students will be able to develop, manage, and evaluate public health programs while working with communities in diverse settings. Additionally, the program provides foundational training to prepare students for graduate school including law school and masters and doctoral programs in public health.
The basic distribution of credits for this major appears in Table 1, followed by course lists.

## Table 1: Distribution of credits for the Public Health major.


GEP 310 Geography of Urban Health ..... 3
6 credits in GIS Specialization Electives selected from the following:
Gredits
GEH 240 Urban Geography ..... 3
GEH 232 Medical Geography ..... 3
GEP 321 Introduction to Remote Sensing ..... 4
GEP 330 Spatial Statistics and Advanced Quantitative Methods in Geography
GEP 360 Geovisualization and Analytic Cartography ..... 4
GEP 350 Special Projects in Geographic Information Systems ..... 4
One semester, 2, 3,or 4 credits (may be
GEH 490 Honors in Geographyrepeated for amaximum of 6credits).
18-Credits in Global Health Specialization
12 Credits in Required Specialization Courses
Credits
PHE 305 Community-based Participatory Research Methods ..... 3
PHE 306 Global Burden of Communicable and Non- Communicable Disease
PHE 307 Emergency Preparedness at the Community Level ..... 3
PHE 360 Special Topics in Public Health ..... 3
6-Credits in Global Health-Specialization-Electives-selected from
Credits
HEA 302 Women and Health ..... 3
HEA 211 Perspectives on AIDS ..... 3
POL 343 International and Regional Organizations ..... 3
HEA 348 Latino Health ..... 3
PHE $340 \quad$ Global Nutrition and Disease ..... 3
GEH 232 Medical Geography ..... 3
6. Credits in Required Fieldwork and Capstone for both Specializations
Credits
PHE $470 \quad$ Public Health Field Experience ..... 3
PHE 472 Public Health Capstone ..... 3

## Admission Requirements

To be considered for admission to the B.S. in Public Health, an application must:

1. Have a minimum GPA of 3.0 .

## To: Public Health B.S. 57-61 credits (credits in the major)

The 57-61 credit Bachelor of Science (BS) in Public Health will focus on environmental and global health. The emphasis on these two critical areas is in line with Lehman College's mission, vision, and strategic plan "Lehman 2025, Road Map to the Future," (5) which focuses on environmental and social justice issues. The proposal builds on the most effective components of the 2016 major, which was approved and implemented. The proposal highlights innovations that are key to educating the next generation of public health professional.

Table 1: Distribution of credits for the Public Health major.
Component

Credits
Core Courses 35
Clinical Public Health Concentration OR $\underline{20}$
Environmental/Global Health Concentration ..... 16
Fieldwork and Capstone ..... 6
Total Credits57-61
57-61 credits in Required Core Foundation and Advanced Courses Credits
Public Health Major Degree Map
Public Health Core Classes (20 credits)
Core Foundational Courses ..... Credit Hours
MAT 132 Introduction to Statistics ..... 4
BIO 181 Anatomy and Physiology I ..... 4
HSD 266 US Health Care System ..... 3
PSY 166 General Psychology ..... 3
PHE 302 Social and Environmental Determinants of Health ..... 3
PHE 304 Fundamentals of Global Health ..... 3
Advanced Core Courses (15 credits)
HSD 269 Fundamentals of Biostatistics for Health Professions ..... 3
HSD 306 Epidemiology ..... 3
PHE 303 Approaches to Public Health Research ..... 3
PHE 306 Global Burden of Communicable and Non-Communicable Disease ..... 3
PSY 335 Health Psychology ..... 3
Public Health Capstone and Field Experiences (6 credits)
PHE 470 Public Health Field Experiences ..... 3
PHE 472 Public Health Capstone ..... 3
**********Choose one of the following concentrations*
Clinical Public Health Concentration Courses: (20 credits)
BIO 182 Anatomy and Physiology II ..... 4
BIO 230 Microbiology ..... 4
CHEM 114/115 General Chemistry Lecturer and Lab I ..... 4.5
CHEM 120/121 General Chemistry Lecturer and Lab II ..... 4.5
HIN 268 Growth \& Development ..... 3
Environmental \& Global Health (16 credits):
ENV 235 Conservation of the Environment ..... 3
ENV 270 Environmental Pollution ..... 4
ENV 326 Environmental Policy ..... 3
HEA 301 Environmental Health ..... 3
PHE 340 Global Nutrition \& Disease ..... 3

Program Electives: Students may need 15 to 30 credits or more of electives to meet the 120 credit hours. Choose any 300-600 PHE or ENV course electives which can be the focus of a minor or a pre-health pre-requisite.

HEA 348 Latino Health
HEA 400 Program Planning and Evaluation
PHI 336 Disability, Ethics \& Body
SOC 309 Social Inequality
HEA 307 Human Sexuality
ENW 307 Health and Science Writing

PHE 307 Emergency Preparedness at the Community Level
PHE 360 Special Topics in Public Health
PUBH 610 Public Health Leadership \& Management
PUBH 611 Health Equity, Communication, and Advocacy
PUBH 612 Designing and Evaluating Public Health Interventions
PUBH 613 Designs, Concepts, and Methods in Public Health Research

## Admission Requirements

To be considered for admission to the B.S. in Public Health, an application must:

1. GPA standard at "B-" (minimum 2.7 to 2.9 including all prior courses) for admission into the major. Approved by CAEAS on 2/8/2023
2. At least $50 \%$ of this program can be completed online; however, the public health internship is a required component which cannot be done online. Internship has a face-to-face requirement.

## 4. Rationale: Re-introduction of the BS in Public Health Major:

The Bachelor of Science in Public Health (BSPH) intends to prepare graduates with skills and competencies needed to advance population health in the New York City (NYC) region and to meet both national and global demands of current and emerging public health trends (1). A shortage of properly trained public health workers has been recognized for some time now, relative to the growing and aging U.S. population. Meanwhile, the health and health care sectors are the largest employers in the Bronx. As such, there is an ever-growing need to prepare students who live locally to enter this workforce. In partnership with CUNY School of Public Health, Lehman College can fulfill this role since the majority of Lehman's undergraduate students are from the Bronx and surrounding areas.

This re-introduction of the undergraduate degree program in public health will align with the Associate degree programs at our community colleges and be a direct feeder to the CUNY SPH 4+1 partnership, where students can begin their public health education at the community college and complete an MPH within 5 years. Entry to practice in public health requires a Master's in Public Health. The degree program will be housed within the Lehman College Department of Health Equity, Administration \& Technology within the School of Health Sciences, Human Services and Nursing. The revised curriculum focuses on environmental and global health, two worldwide public health priorities.

In March 2020, the Lehman College community experienced the effects of COVID-19, a pandemic affecting citizens in nearly every corner of the world ( 2,3 ). During this time, New York City was considered the epi-center of this pandemic reporting the highest morbidity and mortality rates in the country (4). Government agencies at all levels recognized that the department of health agencies at all levels recognized that health
agencies were not prepared to manage a crisis of this magnitude. The pandemic highlighted the dire need for trained public health professionals who could direct policy, devise strategies, and deliver interventions that would decrease COVID-19 incidence rates. Public Health became a national imperative, especially for government agencies who were motivated to invest in public health education at many levels. While the decision in 2019 to terminate the BS in Public Health was made under different circumstances, it is our goal to re-introduce the undergraduate public health major at Lehman College in the Department of Health Equity, Administration \& Technology (HEAT), a new created department with the School of Health Sciences, Human Services, and Nursing (HS2N). The re-introduction of this major is both timely, relevant, and in line with the mandate to train more public health practitioners.

The 57-61 credit Bachelor of Science (BS) in Public Health will focus on environmental and global health. The emphasis on these two critical areas is in line with Lehman College's mission, vision, and strategic plan "Lehman 2025, Road Map to the Future," (5) which focuses on environmental and social justice issues. The proposal builds on the most effective components of the 2016 major, which was approved and implemented. The proposal highlights innovations that are key to educating the next generation of public health professional.

The Lehman College Department of Health Equity, Administration \& Technology (HEAT) is re-introducing the Bachelor of Science in Public Health (BSPH) at a critical time locally, nationally, and globally. Satisfying this major will require 44 general education/pathway/college option credits and 57-61 core credits, 3 credits of fieldwork and 3 credits capstone, and 15 to 30 or more elective credits to meet the 120 credits. The degree will provide students with key competencies and technical skills for entrylevel professional positions in public health, or continued graduate studies, particularly in a Masters of Public Health program. This public health degree option is also a pathway into nursing by completing all of the nursing pre-requisite courses. A student interested in nursing can complete the nursing pre-requisite courses in the first four (4) semesters, make application to the nursing program and take the required nursing entrance examination as a part of the nursing admission processes. Students who want to complete the public health undergraduate degree will remain on track to a BS in Public Health after which they may proceed to an MPH program or apply to an accelerated nursing program. Students must meet the admission criteria for either program chosen.

## Educational goals:

Expanding on the existing public health minor in the Department of Health Science, the BSPH will prepare students for either 1) entry-level jobs in the public health field, or 2) acceptance into an accredited MPH program, which are entry to practice public health 3) acceptance into an accelerated nursing program and/or 4) acceptance into a DirectEntry Master of Nursing program. Students in this undergraduate degree have multiple pathways to professional careers in public health and nursing. The Bureau of Labor Statistics (BLS) has indicated a need for trained professionals in both of these areas. Specific learning goals are based on the mastery of the following core competencies, which are derived from recommendations by the Association of Schools and Programs
of Public Health (ASPPH) and the mission of the CUNY School of Public Health (SPH). Upon completion of the

Lehman College BS in PUBLIC HEALTH, student will be able to:

1. Define the history and philosophy of public health as well as its core values, concepts, and functions across the globe and in society.
2. Identify the underlying science of human health and disease including opportunities for promoting and protecting health across the life course.
3. Address the socio-economic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities.
4. Describe the fundamental characteristics and organizational structures of the U.S. health system as well as the differences in systems in other countries.
5. Describe the basic concepts, methods, and tools of public health data collection, use, and analysis; and why evidence-based approaches are an essential part of public health practice.
6. Implement the basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology.
7. Apply the fundamental concepts and features of project implementation, including planning, assessment, and evaluation.
8. Recognize the concepts of population health, and the basic processes, approaches, and interventions that identify and address the major health-related needs and concerns of populations

## Brief Rationale for Program:

1. Public health and related health care fields are among the fastest growing employment sectors in the New York City region, where the New York State Department of Labor has projected employment rate increases across all health-related occupations as "very favorable" (6).
2. Nationally, the ASPPH estimates that 250,000 new public health workers will be needed by 2024. More than $25 \%$ of public health workers have retired in the past decade and only $20 \%$ of the current workforce has formal training in public health (7).
3.National and international organizations are increasingly turning to public health initiatives and interventions to address recurrent natural and anthropogenic disasters, which require responses by well-trained and skilled public health professionals (8).
3. The City University of New York has the potential to meet these educational and workforce needs. Currently, seven public health programs at four campuses are affiliated with the CUNY Graduate School of Public Health and Health Policy (SPH). The proposed BSPH will help to link Lehman College undergraduates to this expanding network and to contribute to the workforce needs to address population health issues. In a statement from the White House, the Biden-Harris administration supported plans to invest 7.4 billion dollars to train more public health workers and provide grants to state and local health departments to hire more public health staff to contain the COVID-19 pandemic crisis (9).

## Distance Education

BS in Public Health had previous been a traditional face-to-face course; however, this proposal will formally add the distance format per New York State Department of Education requirements that $\mathbf{> 5 0 \%}$ or more of course sections are offered in synchronous online modality that can be completed through distance education.

## Dual Credit Option

Public Health majors interested in pursuing an MPH in Health Management \& Policy at the School of Public Health (SPH) through an articulation agreement can earn 12 credits to be used for both undergraduate and graduate program of study. Students interested in this pathway, must be conditionally accepted as matriculating students in the SPH graduate program.

Undergraduate students majoring in Public Health with 60 or more credits and a minimum of a (3.2) cumulative grade point average may be permitted to enroll in up to 12 credits of graduate coursework at CUNY Graduate School of Public Health. The student must speak with the faculty advisor to determine elective courses that will satisfy the undergraduate and graduate degree requirement:

The student conditionally admitted to the School of Public Health, must commit to the program once admitted, and must graduate from Lehman College with Bachelor degree to be fully admitted as a Graduate Student. The student must also receive permission from the program and/or dean's office prior to registration.

[^0]Senate Meeting - 3/01/23

## Undergraduate Curriculum Committee (UCC) Report

The following proposals were approved unanimously by the UCC, with a quorum present on (6/7 members in attendance)

1. African Studies Department

- BA-Add distance format

2. Chemistry Department

- CHE 166-Hours
- CHE 168-Hours

3. Computer Science Department

- Computer Information Systems-Degree requirements
- Computer Science B.S.-Degree requirements
- CIS 213-New course
- CMP 157-New course
- CMP 269-New course
- CMP 333-New course
- CMP 340-New course
- CMP 343-New course
- CMP 415-New course
- CMP 431-New course
- CMP 432-New course
- CMP 447-New course
- CMP 475-New course
- CMP 476-New course
- CIS 212-Credits, prerequisite
- CIS 234-Prerequisite, title, description
- CIS 242-Prerequisite
- CIS 244-Prerequisite
- CIS 247-Credits, prerequisite
- CIS 266-Prerequisite
- CIS 329-Prerequisite
- CIS 331-Prerequisite
- CIS 341-Prerequisite
- CIS 344-Prerequisite
- CIS 345-Prerequisite
- CIS 346-Prerequisite, credits
- CIS 349-Prerequisite
- CMP 167-Credits, prerequisite, description
- CMP 168-Corequisite, description, general education component
- CMP 232-Title, prerequisite, corequisite
- CMP 338-Title, description
- CMP 405-Credits
- CMP 410-Title, description
- CMP 428-Prerequisite, corequisite
- Course withdrawals-CIS 166, 211, 228, 246

4. Social Work Department

- Aging Interdisciplinary Minor-Degree requirements


## Informational Items

Next meeting: 4/19/23

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK <br> DEPARTMENT OF AFRICANA STUDIES

## CURRICULUM CHANGE

Name of Program and Degree Award: Africana Studies, BA
Hegis Number: 2211.00
Program Code: 34007
Effective Term: Fall 2023

1. Type of Change: Add Distance Format
2. From:

Africana Studies B.A. (36 Credit Major)
The required courses and credits are distributed as follows:
Credits (36)
21 credits in required courses as follows:

|  |  | Credits |
| :--- | :--- | :--- |
| AAS 166 | Introduction to African and <br> African American Studies | 3 |
|  |  |  |
| AAS 232 | African Civilizations | 3 |
|  | Or |  |
| AAS 248 | African History | 3 |
|  |  | 3 |
| AAS 235 | Caribbean Societies |  |
|  |  | 3 |
| AAS 241 |  <br> Francophone Caribbean | 3 |
|  | Or | 3 |
| AAS 242 | African Literature |  |
|  | Or |  |


| AAS 267 | African-American Literature | 3 |
| :--- | :--- | :--- |
|  |  |  |
| AAS 245 | History of African <br> Americans | 3 |
|  | The Civil Rights Movement | 3 |
| AAS 330 | Or |  |
|  | African-Americans in the <br> Political System | 3 |
| AAS 342 | And | 3 |
| AAS 390 | Research Methods |  |
|  | Or | 3 |
| AAS 470 | Fieldwork in the African <br> American Community |  |

*NOTE: Students in the Early Childhood and Childhood teaching certification sequence may substitute the courses in the ECCE certification, ECE 480 and ECE 483, which are student teaching and the accompanying seminar (6 credits) for AAS 470: Fieldwork in the African American Community.

15 credits in elective AAS courses at $\mathbf{3 0 0}$ or $\mathbf{4 0 0}$ level
3. To:

Africana Studies B.A. (36 Credit Major)
The required courses and credits are distributed as follows:

Credits (36)
21 credits in required courses as follows:

|  |  | Credits |
| :--- | :--- | :--- |
| AAS 166 | Introduction to African and <br> African American Studies | 3 |
|  |  |  |
| AAS 232 | African Civilizations | 3 |
|  | Or |  |
| AAS 248 | African History | 3 |
|  |  |  |
| AAS 235 | Caribbean Societies | 3 |


|  |  |  |
| :--- | :--- | :--- |
| AAS 241 |  <br> Francophone Caribbean | 3 |
|  | Or |  |
| AAS 242 | African Literature | 3 |
|  | Or |  |
| AAS 267 | African-American Literature | 3 |
|  |  | 3 |
| AAS 245 | History of African <br> Americans |  |
| AAS 330 | The Civil Rights Movement | 3 |
|  | Or |  |
| AAS 342 | African-Americans in the <br> Political System | 3 |
|  | And |  |
| AAS 390 | Research Methods | 3 |
|  | Or |  |
| AAS 470 | Fieldwork in the African <br> American Community | 3 |

*NOTE: Students in the Early Childhood and Childhood teaching certification sequence may substitute the courses in the ECCE certification, ECE 480 and ECE 483, which are student teaching and the accompanying seminar (6 credits) for AAS 470: Fieldwork in the African American Community.

15 credits in elective AAS courses at $\mathbf{3 0 0}$ or $\mathbf{4 0 0}$ level
$100 \%$ of the courses to complete the major may be taken online.
4. Rationale (Explain how this change will impact learning outcomes of the department and Major/Program):
Formally add distance format.
5. Date of departmental approval: November 9, 2022.

LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF CHEMISTRY

CURRICULUM CHANGE

1. Type of Change: hours
2. From:

| Department(s) | Chemistry |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Chemistry |
| Course Prefix <br> \& Number | CHE 166 |
| Course Title | General Chemistry I |
| Description | Fundamental laws and theories of chemistry |
| Pre/ Co Requisites | PRE OR COREQ: MAT 171 or MAT 172 or satisfaction of requirements for placement into calculus I (MAT 175). |
| Credits | 4 |
| Hours | -4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | $\qquad$ Not Applicable $\qquad$ X_Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 3. To:

| Department(s) | Chemistry |
| :--- | :--- |


| Career | [ X] Undergraduate [ ] Graduate |
| :---: | :---: |
| Academic Level | [ X ] Regular [ ]Compensatory [ ] Developmental [ ]Remedial |
| Subject Area | Chemistry |
| Course Prefix \& Number | CHE 166 |
| Course Title | General Chemistry I |
| Description | Fundamental laws and theories of chemistry |
| Pre/ Co Requisites | PRE OR COREQ: MAT 171 or MAT 172 or satisfaction of requirements for placement into calculus I (MAT 175). |
| Credits | 4 |
| Hours | 5 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component |  |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

One of the more successful techniques that have been used across the country to engage students is the inclusion of an additional course hour during which students engage in problem solving through peer instruction and/or group workshops. These problem-solving sessions provide a structured opportunity for students to solve typically difficult problems, in a collaborative setting. (There is tremendous research evidence to demonstrate the effectiveness of collaborative settings on student learning.)

The Chemistry department proposes to change from a three-hour traditional lecture with one-hour of recitation to a five-hour classroom model (three hours of lecture plus two hours of recitation) that incorporates video lecture, peer instruction and group workshops into an integrated and seamless pedagogical approach. In this new approach we will add one hour of small group recitation to our current model. Students will learn basic course content through the video lectures (at home) and then come to
class to extend this basic knowledge to new (and often difficult) levels through structured problem-solving exercises for four hours of peer instruction (three lecture and one recitation) and one new hour of group workshops. The course is currently comprised of four in-class hours (three lecture and one recitation) during which the 200+ students work to learn content and solve problems under the guidance of a single course instructor. While this has proved much more effective than a traditional lecture, we have realized that students need more individual support as they learn to solve the more conceptual and often difficult integrated problems. In the new model the additional (fifth) hour will be used to break the class into smaller sections where they can work on focused group-based problem solving with more individual instructor attention.
5. Date of departmental approval: May 12, 2022

LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF CHEMISTRY

CURRICULUM CHANGE

1. Type of Change: hours
2. From:

| Department(s) | Chemistry |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ]Remedial |
| Subject Area | Chemistry |
| Course Prefix \& Number | CHE 168 |
| Course Title | General Chemistry II |
| Description | In-depth introduction to thermodynamics, redox reactions, electrochemistry and chemical equilibrium. |
| Pre/ Co Requisites | PREREQ: CHE 166 and MAT 171 or MAT 172 or satisfaction of requirements for placement into calculus I (MAT 175). |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 3. To:

| Department(s) | Chemistry |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Chemistry |
| Course Prefix \& Number | CHE 168 |
| Course Title | General Chemistry II |
| Description | In-depth introduction to thermodynamics, redox reactions, electrochemistry and chemical equilibrium. |
| Pre/ Co Requisites | PREREQ: CHE 166 and MAT 171 or MAT 172 or satisfaction of requirements for placement into calculus I (MAT 175). |
| Credits | 4 |
| Hours | 5 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

One of the more successful techniques that have been used across the country to engage students is the inclusion of an additional course hour during which students engage in problem solving through peer instruction and/or group workshops. These problem-solving sessions provide a structured opportunity for students to solve typically difficult problems, in a collaborative setting. (There is tremendous research evidence to demonstrate the effectiveness of collaborative settings on student learning.)

The Chemistry department proposes to change from a three-hour traditional lecture with one-hour of recitation to a five-hour classroom model (three hours of lecture plus two hours of recitation) that incorporates video lecture, peer instruction and group
workshops into an integrated and seamless pedagogical approach. In this new approach we will add one hour of small group recitation to our current model. Students will learn basic course content through the video lectures (at home) and then come to class to extend this basic knowledge to new (and often difficult) levels through structured problem-solving exercises for four hours of peer instruction (three lecture and one recitation) and one new hour of group workshops. The course is currently comprised of four in-class hours (three lecture and one recitation) during which the 200+ students work to learn content and solve problems under the guidance of a single course instructor. While this has proved much more effective than a traditional lecture, we have realized that students need more individual support as they learn to solve the more conceptual and often difficult integrated problems. In the new model the additional (fifth) hour will be used to break the class into smaller sections where they can work on focused group-based problem solving with more individual instructor attention.
5. Date of departmental approval: May 12, 2022

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

Name of Program and Degree Award: Computer Information Systems (CIS)
Hegis Number: 0702
Program Code: 83120 / MHC 60201
Effective Term: Fall 2023

1. Type of Change: Change in degree requirements.
2. From: Strikethrough the changes

Computer Information Systems, B.S. (55-57 Credit Major)

## Required Courses ( 19 credits):

CIS 166 Computer Programming for Information Processing 1 3
CIS 211 Computer Information Systems 4
CIS 212 Microcomputer Architecture 3
CIS 244 Introduction to Database Management 3
CIS 331 Network Introduction 3
CIS 344 Database Design and Programming 3
Elective Courses (6-8 credits):
Two additional courses chosen from the 200-level (or higher) CIS courses or from:
GGI 221 Applied Imaging and Applications to the World Wide Webl 3
GGI321 Computer Modeling and Design I 3
GGI 421 Computer Animation I 3
GMP 168 Programming Methods II 4
One of the courses must be a 300-(or 400-) level CIS course.
In Mathematics: Required Courses ( 15 credits):
MAT 132 Introduction to Statistics 4
MAT 174 Elements of Calculus 4
MAT 301 Applied Statistics and Computer Analysis for Social Scientists 3
MAT 348 Mathematical Methods for Management 4
MAT 174: Students considering graduate work should take MAT 175, MAT 176 instead of MAT 174.
In Economics: Required Courses ( 9 credits):
ECO 166 Introduction to Macroeconomics 3
ECO 167 Introduction to Microeconomics 3
ACC 171 Introduction to Accounting for Non-Accounting Majors 3
or
ACC 185 Principles of Accounting 3
Further Electives (6-credits):Students must choose two courses from the following:One 200-level CIS course: Or higher, for 3 credits.AND
At least one of PHI 221 and POL 299 must be chosen.
PHI 221 Ethical Issues in Computing and Technology ..... 3
POL 299 Law, Computers, and the Internet: The Politics of Information Technolegy ..... 3
3. To: Underline the changes
Computer Information Systems, B.S. (60-68 Credit Major)
Courses Required For All CIS Majors:
CMP 128 - Programming Through Web Development ..... 3
CMP 157 - Programming Methods I Lab ..... 1
CMP 167 - Programming Methods I ..... 4
CIS 212 - Microcomputer Architecture ..... 4
CIS 213 - Microcomputer Architecture Lab ..... 1
CIS 234 - Introduction to Spreadsheet Analysis ..... 3
CIS 244 - Introduction to Database Management ..... 3
CIS 247 - Practical UNIX:Programming \& System Administration ..... 4
CIS 331 - Network Introduction ..... 3
CIS 344 - Database Design and Programming ..... 3
CIS 345 - Introduction to Operating Systems ..... 4
PHI 221 or POL 299 ..... 3
MAT 132 - Introduction to Statistics ..... 4
MAT 174 - Elements of Calculus ..... 4
MAT 301 - Applied Statistics and Computer Analysis for Social Scientists ..... 3
MAT 348 - Mathematical Methods for Management ..... 4
Students considering graduate work should take MAT 175, MAT 176 instead of MAT 174.
At least 1 Elective Track is Required for All CIS Majors: REQUIRED Track 9-17 credits
Elective Tracks for CIS Majors:
Web Development Track
CMP 158 - Programming Methods II Lab ..... 1
CMP 168 - Programming Methods II ..... 4
CMP 343 - Web Development ..... 4
CIS 346 - E-Commerce ..... 4
Programming Track
CMP 158 - Programming Methods II Lab ..... 1
CMP 168 - Programming Methods II ..... 4
CMP 232 - Discrete Mathematics ..... 4
CMP 269 - Programming Methods III ..... 4
CMP 338 - Data Structures ..... 4
Total 17 credits
Hardware Track
CIS 341 - Computer System Fundamentals (can be substituted by A+ Certificate) ..... 3
CMP 232 - Discrete Mathematics ..... 4
CMP 334 - Computer Organization ..... 4
Total 11 credits
Business Track
ECO 166 Microeconomics ..... 3
ECO 167 Macroeconomics ..... 3
ACC 171 or 185 Intro to Accounting ..... 3
Total 9 credits
CGI Track
ART 112 Introduction to Digital Imaging ..... 3
CGI 221 Applied Imaging and Applications to the World Wide Web I ..... 3
CGI 321 Computer Modeling and Design I ..... 3
CGI 421 Computer Animation I ..... 3
Total 12 credits
4. Rationale (Explain how this change will impact learning outcomes of the department andMajor/Program):

In the rapidly changing field of Computer Information Systems, the current major is no longer serving our students' needs.

The new major is now divided into core requirements that all CIS majors must complete. These requirements provide our students with the foundation they will need to complete their undergraduate studies and will prepare them for possible graduate studies going forward.

In addition, the major now includes multiple specialization tracks which students can choose from. Students need only complete one track in order to complete the major. However, they may choose to add additional track(s) if they wish.
5. Date of departmental approval: March 01, 2022

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

Name of Program and Degree Award: Computer Science, B.S.
Hegis Number: 0701
Program Code: 60202 / MHC 60203
Effective Term: Fall 2023

1. Type of Change: Change in degree requirements
2. From: Strikethrough the changes

Computer Science, B.S. (57-61 Credit Major)
Credits
MAT 175 Calculus I 4
MAT 176 Calculus II 4
MAT 313 Elements of Linear Algebra 4
CMP 167 Programming Methods I 3
CMP 168 Programming Methods II 4
GMP 232 Elementary Discrete Structures \& - 4 Applications to Computer Science
CMP 334 Computer Organization 4
CMP 338 Data Structures and Algorithms I 4
CMP 405 Introduction to Networks 3
CMP 420 Database Systems 4
GMP 426 Operating Systems 4
Electives:
Four Advanced CMP courses ( 300 or 400 Level)
MAT 226 or PHY-305 can be substituted for one of these courses
One Advanced MAT course (300 or 400 Level) not including 3-4 MAT 300, MAT 301, MAT 348, CMP 332 or CMP 416
3. To: Underline the changes

Computer Science, B.S. (78-80 Credit Major)
MAT 175 Calculus I 4
MAT 176 Calculus II 4
MAT 226 Vector Calculus 4
MAT 313 Elements of Linear Algebra 4
Total Required MAT 16
CMP 157 Programming Methods I Lab ..... 1
CMP 158 Programming Methods II Lab ..... 1
CMP 167 Programming Methods I ..... 4
CMP 168 Programming Methods II ..... 4
CMP 232 Discrete Mathematics ..... 4
CMP 269 Programming Methods III ..... 4
CMP 334 Computer Organization ..... 4
CMP 338 Data Structures ..... 4
CMP 340 Introduction to Probability for Computer Science ..... 4
CMP 410 Design and Analysis of Algorithms ..... 4
Total Required CMP ..... 34
Electives: Four Advanced CMP courses (300 or 400 Level) ..... 16
PHY-305 can be substituted for one of these courses
Tracks: Three Advanced CMP courses in a single track (see below) ..... 12
Tracks should be selected in consultation with the department advisor.
Systems Track
CMP 426 Operating Systems ..... 4
CMP 405 Introduction to Networks ..... 4
CMP 420 Database Systems ..... 4
Total For Systems Track ..... 12
Web Development Track
CMP 405 Introduction to Networks ..... 4
CMP 342 Internet Programming ..... 4
CMP 343 Full Stack Web Development ..... 4
Total For Web Development Track ..... 12
Software Engineering Track
CMP 346 Object Oriented Techniques ..... 4
CMP 428 Video Game Programming ..... 4
CMP 408 Software Engineering ..... 4
Total For Software Engineering Track ..... 12
Mobile Programming Track
CMP 346 Object Oriented Techniques ..... 4
CMP 431 Mobile Programming for Android ..... 4
CMP 432 Mobile Programming for iOS ..... 4
Total For Mobile Programming Track ..... 12
Artificial Intelligence Track
CMP 414 Artificial Intelligence ..... 4
CMP 333 Data Management and Analysis ..... 4
CMP 415 Machine Learning ..... 4

## Total For Artificial Intelligence Track

## 4. Rationale (Explain how this change will impact learning outcomes of the department and Major/Program):

In the rapidly changing field of Computer Science, the current major is no longer serving our students' needs.

The new major is now divided into core requirements that all CMP majors must complete. These requirements provide our students with the foundation they will need to complete their undergraduate studies and will prepare them for possible graduate studies going forward.

In addition, the major now includes multiple specialization tracks which students can choose from. Students need only complete one track in order to complete the major. However, they may choose to add additional track(s) if they wish.
5. Date of departmental approval: March 01, 2022

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New course
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 213 |
| Course Title | Microcomputer Architecture Lab |
| Description | Practical application of concepts learned in CIS212 - Architecture of microcomputer systems. |
| Pre/ Co Requisites | Corequisite: CIS 212. |
| Credits | 1 |
| Hours | 1 |
| Liberal Arts | [ ]Yes [X]No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) |  |
| General Education Component | X Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> Scientific World |

## 3. Rationale:

This course will serve as a one hour lab per week, where practical application of Microcomputer Architecture concepts learned in the co-requisite course CIS 212 will occur.

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

By the end of the course students will be expected to demonstrate their understanding of concepts learned in CIS212 - Architecture of microcomputer systems, by applying their learned knowledge on a variety of physical and virtual devices.

1. Define systems architecture and related terms
2. Define and identify the components and functions of computer networks
3. Describe numbering systems and their use in data representation
4. Describe CPU instruction and execution cycles
5. Describe the distinguishing characteristics of primary and secondary storage
6. Demonstrate how the CPU and bus interact with peripheral devices
7. Describe basic concepts of text and image representation and display
8. Explain communication protocols
9. Describe logical and physical network topologies
10. Describe the application development process and the role of methodologies, models, and tools
11. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK <br> DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of change: New Course

2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X]Regular [ ] Compensatory [ ] Developmental [ ]Remedial |
| Subject Area | Computer Science |
| Course Prefix <br> \& Number | CMP 157 |
| Course Title | Programming Methods I Lab |
| Description | Application of concepts learned in CMP 167 to develop programming solutions to problems as lab assignments. Code will be written in an Integrated Developer Environment. |
| Pre/ Co Requisites | Prerequisite: MAT 104 or higher Corequisite: CMP 167 |
| Credits | 1 |
| Hours | 2 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing Intensive, WAC, etc) |  |
| General Education Component | _ X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> Scientific World |

## 3. Rationale:

This course will serve as the co-requisite for the first programming course CMP 167. Students will apply the concepts learned to develop their programming skills.
4. Learning Outcomes (By the end of the course students will be expected to):

1. Independently design, create, debug simple applications
2. Define and use variables of various data types
3. Define and use methods
4. Demonstrate the use of parameters and information passing in programs
5. Use existing libraries and their methods
6. Manipulate strings
7. Manipulate 1 dimensional arrays
8. Use control structures such as decision branching \& iteration
9. Create classes to represent objects
10. Date of Departmental Approval: March 01, 2022

## LEHMAN COLLEGE

OF THE
CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [] Graduate |
| Academic Level | [x] Regular [] Compensatory [ ] Developmental [ R Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 269 |
| Course Title | Programming Methods III |
| Description | An In-depth exploration of Object Oriented programming with emphasis on inheritance, interfaces, multi-threading, I/O, GUI, recursion and unit testing. Programming projects to be implemented in different languages. |
| Pre / Co Requisites | Prerequisites: CMP 158 and CMP 168 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X]Yes []No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component | _X $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science <br> Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> Scientific World |

## 3. Rationale:

The existing introductory programming sequence consists of two programming courses and covers the programming concepts required to develop basic functional applications in Java. The addition of this third course as part of the introductory programming sequence will offer more in-depth exploration of Object Oriented programming as well as exposure to different programming languages needed to succeed in subsequent courses. The addition of this third course as part of the introductory programming sequence will enable students to solidify their programming skills and broaden their knowledge of techniques and languages before moving on to more advanced courses.
4. Learning Outcomes (By the end of the course students will be expected to):

By the end of the course students should be able to read and write code in multiple programming languages and do the following:

1. Demonstrate OOP through proper use of encapsulation, polymorphism and multi-level inheritance hierarchies.
2. Implement multiple Interfaces as well as inheriting from classes that have implemented Interfaces
3. Implement generics and their use in object declarations
4. Demonstrate understanding and usage of Collections in each of the assigned programming languages
5. Demonstrate understanding and usage of Enumerations
6. Synchronize Threads using Semaphores in applications
7. Design and Develop fully functional applications in the assigned programming languages
8. Perform Serialization and Streaming of Objects
9. Use File I/O for both text and object storage/retrieval in applications
10. Development of GUI
11. Make use of Debugging Techniques and Tools
12. Make use of Testing Techniques and Tools (Unit testing and Integration testing)
13. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [x] Graduate |
| Academic Level | [x] Regular [] Compensatory [] Developmental [] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 333 |
| Course Title | Data Management and Analysis |
| Description | Introduction of Data handling tools and techniques, extracting and presenting information about data, and computational thinking processes. |
| Pre / Co Requisites | Prerequisites: CMP 158, CMP 168, CMP 232 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X] Yes [] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component |  |

## 3. Rationale:

Data is the foundation of the digital age. Many industries generate massive datasets on a daily basis, and thus are in urgent need of professionals who can explore the dataset using data processing software and present relevant characteristics of the datasets in an explicit and understandable way. Mastering modern data analysis software and techniques is crucial for Computer Science students to meet the requirements of the fast-growing data science and analytics job market.

In a data science project, the data usually needs to be extracted from multiple files, databases, webpages, or PDFs. They can be in the form of numbers, measurements, words, labels, etc. Very often researchers need to convert the data into a cleaner and tidier form through several steps of the data wrangling process such as string processing, HTML parsing, working with dates and times, and imputing missing values. It is a crucial skill to communicate information about datasets clearly and efficiently through data description and visualization tools, such as statistical graphs, charts, plots, and information graphics. Effective description of data makes complex data more accessible and understandable, and helps researchers reason about data more easily. Adding this course to the Computer Science curriculum would help our graduates remain competitive in highly sought-after data science positions.
4. Learning Outcomes (By the end of the course students will be expected to):

1. Import data into Python from files in different formats.
2. Scrape data from websites and databases.
3. Process text, images, and date and times.
4. Create data aggregation using pivot tables.
5. Apply formulas to extract statistical information.
6. Visualize the dataset and make inferences.
7. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [] Graduate |
| Academic Level | [x] Regular [] Compensatory [] Developmental [ Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 340 |
| Course Title | Introduction to Probability for Computer Science |
| Description | Introductory probability theory with applications to computer science. Axioms of probability, conditional probability, discrete and continuous random variables, expectation, variance and covariance, law of large numbers, central limit theorem. |
| Pre / Co Requisites | Prerequisites: MAT 226 and CMP 338 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component |  |

## 3. Rationale:

Probability theory is of fundamental importance in computer science. Its role in computer science is rapidly growing in recent years, partially due to the rise in interest in machine learning and, more generally, in data science. Knowledge of basic probability theory is important for students who would
like to develop careers in machine learning/data science. It also serves them well in almost any other area of computer science, including data structures and algorithms, optimization, cryptography, simulation, and more. It is therefore our belief that a working knowledge of basic probability theory is necessary for every computer science student. The course will have many similarities to MAT 330, but will have more examples of applications of probability theory to computer science. We should also point out that the mathematics department has indicated that it is unable to offer MAT 330 to all computer science major, and so it becomes necessary for us to offer a local CS variant of the course.
4. Learning Outcomes (By the end of the course students will be expected to):

1. Understand and apply basic probability theory, including random variables, distributions, and expectation.
2. Understand and apply the law of large numbers and central limit theorem.
3. Be prepared for learning advanced topics in Computer Science that rely on probability theory.
4. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 343 |
| Course Title | Full Stack Web Development |
| Description | Full stack web development through experiential project-based learning using apis, protocols, and popular frameworks. |
| Pre/ Co Requisites | Prerequisites: CMP 158, CMP 168 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> Scientific World |

## 3. Rationale:

In a world increasingly connected by the Internet, the World Wide Web has emerged as a nearly ubiquitous platform for personal communication, business operations, and global information sharing.

Students of computer science will benefit from understanding the web and creating applications.
4. Learning Outcomes (By the end of the course students will be expected to):

1. Explain the concepts, implement the syntax, and know the benefits of using JavaScript frameworks on the client-side as well as server-side.
2. Develop aesthetically pleasing web applications that include back-end constructs such as databases and application servers.
3. Describe the benefits of:
a. various architectures
b. design patterns
c. elements of production-readiness
d. historical revisions and version adoption by browsers
4. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [] Graduate |
| Academic Level | [x] Regular [ ] Compensatory [ ] Developmental [] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 415 |
| Course Title | Machine Learning |
| Description | Introduction to applied machine learning models and algorithms using a high level programming language and relevant scientific libraries. |
| Pre / Co Requisites | Prerequisites: CMP 158, CMP 168, MAT 313 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component |  |

## 3. Rationale:

Machine learning is a method of data analysis that automates analytical model building. Such systems can learn from data, identify patterns, and make decisions with minimal human intervention. With the growing volumes and varieties of datasets in recent decades, there is a large job market for experts who can analyze the massive datasets and make data-driven decisions by utilizing machine learning models.

This course will prepare Computer Science students with the essential programming tools and machine learning techniques applicable to various data analysis tasks. Moreover, it will help students practice the application of quantitative analysis and interpretation skills to draw conclusions based on real-world information. Both skills are crucial for students who want to succeed in a data science career.

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

1. Prepare data sets for training machine learning models.
2. Apply the concepts and procedures for popular machine learning algorithms.
3. Select proper methods to build and train machine learning models.
4. Tune a machine learning model to improve its performance.
5. Evaluate the performance of the machine learning model using the test dataset.
6. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [] Graduate |
| Academic Level | [x] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 431 |
| Course Title | Mobile Programming for Android Devices |
| Description | Introduction to Android Mobile Programming. Developing applications for devices running the Android Operating System using the Android Studio IDE to develop their Android Applications. |
| Pre / Co Requisites | Prerequisite: CMP 338 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component | _X $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science <br> Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 3. Rationale:

The pre-existing course code CMP 430 has been used for Mobile Development courses with students permitted to take CMP 430 up to 2 times to earn a total of 8 credits ( 4 for Android Mobile Development, and 4 for iOS Mobile Development). The UCC requested we keep CMP430 without offering it or requiring it for the major, but create 2 new course codes CMP 431 and CMP 432 that will
be used to distinguish which Operating System the Mobile Development course focused on thus eliminating the need/ability to take the same course code of CMP430 for credit twice.
4. Learning Outcomes (By the end of the course students will be expected to):

1. Develop Android mobile applications.
2. Develop applications that properly handle the Android application lifecycle.
3. Create user interfaces, activities and handle events.
4. Pass data between activities.
5. Use themes, layouts and styles.
6. Work with menus, tabs, preferences, and settings.
7. Work with threads and files on Android mobile devices.
8. Use intents, services, notifications, alarms, and broadcast receivers.
9. Store data using SQLite database
10. (If time permits) Work with Content Providers
11. Date of Departmental Approval: March 01, 2022

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [] Graduate |
| Academic Level | [x] Regular [] Compensatory [] Developmental [] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 432 |
| Course Title | Mobile Programming for iOS |
| Description | Introduction to IOS programming using Apple's new language Swift. Developing applications for Apple's iPhones and iPads using the SwiftUI framework and Xcode |
| Pre / Co Requisites | Prerequisite: CMP 338 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | []Yes [X]No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component |  |

## 3. Rationale:

The pre-existing course code CMP 430 has been used for Mobile Development courses with students permitted to take CMP 430 up to 2 times to earn a total of 8 credits ( 4 for Android Mobile Development, and 4 for iOS Mobile Development). The UCC requested we keep CMP430 without
offering it or requiring it for the major, but create 2 new course codes CMP 431 and CMP 432 that will be used to distinguish which Operating System the Mobile Development course focused on thus eliminating the need/ability to take the same course code of CMP430 for credit twice.
4. Learning Outcomes (By the end of the course students will be expected to):

At the end of the course students will be expected to

1. Demonstrate understanding of the essentials of iOS mobile application development.
2. Use Apple's Integrated Development Environment (IDE) XCode.
3. Develop applications that demonstrate proper use of the iOS application lifecycle.
4. Create user interfaces, activities and handle events using SwiftUI.
5. Work with Queues (threads) and files on iOS mobile devices.
6. Use the Foundation library of iOS tools.
7. Date of Departmental Approval: March 01, 2022

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [] Graduate |
| Academic Level | [x] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 447 |
| Course Title | Linear Programming and Operations Research |
| Description | Introduction to linear programming and other optimization techniques in Operations Research with applications of practical problems and theoretical computer science. |
| Pre / Co Requisites | Prerequisites: CMP 338, MAT 175, MAT 313 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component | _X $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science <br> Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 3. Rationale:

Linear programming, as well as other optimization techniques in operations research, is the method to achieve the best outcome within limited resources and has a variety of applications in both practical and theoretical computer science. With the evolution of computer science in recent years, these techniques have been increasingly used across multiple areas of computer science, especially
in Machine Learning and Artificial Intelligence. Therefore, we believe that it is important to provide our undergraduate students the basic knowledge of linear programming and operations research and propose this new course.

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

1. Articulate and apply the basic methods of linear and nonlinear programming problems, including duality.
2. Formulate linear programming models.
3. Solve linear programming problems using simplex method.
4. Conduct sensitivity analysis of linear programming problems.
5. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [] Graduate |
| Academic Level | [x] Regular [ ] Compensatory [ ] Developmental [] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 475 |
| Course Title | Combinatorial \& Graph Algorithms |
| Description | Introduction to graph and combinatorial algorithms with applications. |
| Pre / Co Requisites | Prerequisite: CMP 338 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [x]Yes [ ] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component | $\qquad$ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> Scientific World |

## 3. Rationale:

Graphs arise in a variety of real-world situations, such as road map, supply network and social network, and hundreds of interesting computational problems are couched in terms of graphs. As such, algorithms for working with graphs are fundamental to the field of computer science. In view of its importance, and the evolution of computer science in recent years, where graph algorithms have seen more and more usage both in practical and in theoretical computer science, we believe that it is important to provide our undergraduate students the basic knowledge of graph algorithms and
propose this new course.
4. Learning Outcomes (By the end of the course students will be expected to):

1. Demonstrate understanding of basic concepts in Graph Theory.
2. Represent a given graph as adjacency lists or an adjacency matrix.
3. Describe and implement the breadth first search and the depth first search algorithm.
4. Apply Prim and Kruskal algorithm to solve minimal spanning tree problems
5. Apply algorithms to solve shortest path problems.
6. Apply algorithms to solve maximum problems
7. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of change: New Course.
2. 

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [x] Undergraduate [] Graduate |
| Academic Level | [x] Regular [ ] Compensatory [ ] Developmental [] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 476 |
| Course Title | Parallel Algorithms \& Architecture |
| Description | Survey of parallel computer architecture and models of parallel computation with examples of specific algorithms for searching, sorting, numerical algebraic, and combinatorial computations. |
| Pre / Co Requisites | Prerequisites: CMP 334, CMP 338, MAT 313 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X] Yes [] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) | None |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science <br> Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> Scientific World |

## 3. Rationale:

For many decades parallel algorithms and architectures were deployed almost exclusively in supercomputers. These were applied to only the most demanding high-performance workloads in the sciences, engineering, and digital signal processing where a serial processor was entirely inadequate to the task. Another niche for parallelism was where a very low power solution was needed for an embarrassingly parallel task such as those found in the use of sensor networks. For most in the field
of Computer Science the arena of parallelism has been largely just a very complex academic curiosity examined at the graduate level. In the past decade, however, digital circuit designers/manufacturers have fast approached an immovable physical barrier to one avenue of continued progress. Further miniaturization, which is a major contributor to speed increases and power conservation, will come to a halt without an entirely new foundation for building digital circuits, because circuit sizes are approaching the size of a single atom. This realization has led to new thinking in processor design. An explosion of parallel processing has occurred in commodity CPUs and GPUs. Unfortunately, most computer programmers are ill-prepared to take advantage of these facilities. It is fair to say that parallel algorithm design and implementation is orders of magnitude more difficult than programming serially. This course will introduce students to the arena of parallel algorithms and architecture to better prepare them for changes that have come and are coming to the field.

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

1. Know the advantages and disadvantages of using parallel versus serial hardware.
2. Know use cases of various parallel hardware configurations.
3. Apply the concept of Thread Level Parallelism.
4. Apply the concept of Instruction Level Parallelism.
5. Be cognizant of the inherent difficulties in devising parallel algorithms and their implementations and know how to overcome these issues.
6. Understand how to navigate memory hierarchies of parallel hardware to efficiently move data to where it is needed.
7. Perform intelligent subdivisions and agglomerations.
8. Recognize components of implementations of parallel primitives such as Prefix Scan and Fast Fourier Transform.
9. Explain how parallel primitives are used in devising parallel algorithms.
10. Be prepared for further study of parallel algorithms and architecture so as to facilitate targeted independent study in the area.
11. Date of Departmental Approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Credits, Prerequisite/Corequisite
2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 212 |
| Course Title | Micro Computer Architecture |
| Description | Architecture of microcomputer systems and its supporting system software. Various microprocessor systems, expansion bus design, memory design and management, secondary storage technologies and management, peripherals, and telecommunication technologies. |
| Pre/ Co Requisites | CIS-211 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | - X <br> Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 212 |
| Course Title | Micro Computer Architecture |
| Description | Architecture of microcomputer systems and its supporting system software. Various microprocessor systems, expansion bus design, memory design and management, secondary storage technologies and management, peripherals, and telecommunication technologies. |
| Pre/ Co Requisites | Prerequisite: MAT 104 or higher Co-Requisite: CIS 213 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

We remove the prerequisite of CIS 211 because CIS 211 is no longer a required course for the CIS undergraduate program. No previous knowledge of computer architecture will be assumed for students entering CIS 212.

We increased one credit for this course because the extensive in-depth study of Microarchitecture Components dictates that CIS 212 should be a 4 -hour course. Firstly, we plan to remove the prerequisite CIS 211, which means that this course will also include material previously assumed to be known. Secondly, microarchitecture, and computer architecture in general has changed at an
unimaganeably rapid pace since the inception of CIS 212. As a result, the course content has evolved and expanded since this course's creation to consist of modern changes and extensive in-depth exploration of the technological advancements. The current allotted credits do not reflect the commitment required from the students.

Application of concepts learned will be applied in the Microcomputer Architecture Lab CIS 213. As a result, CIS 213 will be listed as a co-requisite.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Prerequisite/Corequisite, title, description
2. From: Strikethrough the changes

| Department(s $1$ | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 234 |
| Course Title | Introduction to Spreadsheet Analysis |
| Description | Use of spreadsheet software for elementary data analysis, simple modeling and forecasting. Worksheets, files, graphs, and formatted output and screen presentation. Macro programming. |
| Pre/ Co Requisites | MAT 171 and a grade of B-or better in CIS 166 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing Intensive, WAC, etc) |  |
| General Education Component | $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 234 |
| Course Title | Computer Group Productivity Tools |
| Description | Use of spreadsheet software for elementary data analysis, simple modeling, forecasting and macro programming. |
| Pre/ Co Requisites | Prerequisite: CMP 157, CMP 167, MAT 171/MAT 172 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite

2. From: Strikethrough the changes

| Department(s ) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 242 |
| Course Title | Introduction to Systems Analysis and Design |
| Description | Study of a computer system life cycle hardware and software organization. |
| Pre/ Co Requisites | CIS 211 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _ X_ $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 242 |
| Course Title | Introduction to Systems Analysis and Design |
| Description | Study of a computer system life cycle hardware and software organization. |
| Pre/ Co Requisites | Prerequisite: CMP 157, CMP 167 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements in lieu of the removed courses.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite

2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 244 |
| Course Title | Introduction to Database Management |
| Description | Fundamental concepts of database organization: fields, records, tables, indexes, queries, forms, reports. Use of a relational database system for loading, modifying and querying a database. Programming in a database language. |
| Pre/ Co Requisites | CIS 166 with a minimum grade of B- |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _ X <br> _Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 244 |
| Course Title | Introduction to Database Management |
| Description | Fundamental concepts of database organization: fields, records, tables, indexes, queries, forms, reports. Use of a relational database system for loading, modifying and querying a database. Programming in a database language. |
| Pre/ Co Requisites | Prerequisite: CMP 157, CMP 167 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements in lieu of the removed courses.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Credits, Prerequisite/Corequisite
2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 247 |
| Course Title | Practical Unix Programming and System Administration |
| Description | Topics chosen from the following: text editors, file system, utility programs, pipe and filter paradigms, shell language programming; tools for maintenance of normal system operation, security, hardware and software configuration management and network connections. |
| Pre/ Co Requisites | CIS-166 and CIS-211. |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) |  |
| General Education Component | _ X_ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 247 |
| Course Title | Practical Unix Programming and System Administration |
| Description | Topics chosen from the following: text editors, file system, utility programs, pipe and filter paradigms, shell language programming; tools for maintenance of normal system operation, security, hardware and software configuration management and network connections. |
| Pre/ Co Requisites | CMP 157, CMP 167 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The current allotted credits do not reflect the commitment required from the students. This is a 4 hour course consisting of Practical Unix Programming and System Administration, where students will be involved in experiential learning assignments and projects. Since the creation of the course, the content has evolved a lot, to consist of both modern changes and extensive exploration and study. Moreover, the prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition
of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements. The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements in lieu of the removed courses.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite/Corequisite

2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 266 |
| Course Title | Computer Programming for Information Processing II |
| Description | Techniques of business information processing using object-oriented programming. Random access files, data management and control, variable arrays, object variables. Introduction to advanced techniques. |
| Pre/ Co Requisites | A grade of C or better in CIS 166 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) |  |
| General Education Component | _ X <br> Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 266 |
| Course Title | Computer Programming for Information Processing II |
| Description | Techniques of business information processing using object-oriented programming. Random access files, data management and control, variable arrays, object variables. Introduction to advanced techniques. |
| Pre/ Co Requisites | CMP 157, CMP 167 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements. Therefore, the grade requirement in the prerequisite course CIS 166 is not needed and in fact the CIS 166 course is not needed as a prerequisite since it is being removed.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite/Corequisite

2. From: Strikethrough the changes

| Department(s <br> ) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 329 |
| Course Title | Local Area Networks (LAN's) |
| Description | An overview of LANs as well as hands-on introduction to a popular network operating system. General topics will include LAN media, topologies, protocols, multiplatform connectivity, remote access, and rudimentary internet working. |
| Pre/ Co Requisites | CIS 211, CIS 212 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 329 |
| Course Title | Local Area Networks (LAN's) |
| Description | An overview of LANs as well as hands-on introduction to a popular network operating system. General topics will include LAN media, topologies, protocols, multiplatform connectivity, remote access, and rudimentary internet working. |
| Pre/ Co Requisites | Prerequisites: CMP 157, CMP 167 Pre or Corequisite CIS 212 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements. CIS 212 remains as a corequisite for the current course.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite/Corequisite

2. From: Strikethrough the changes

| Department(s <br> ) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 331 |
| Course Title | Network Introduction |
| Description | Introduction to network technologies (Ethernet, ATM, WiFi, Bluetooth, ZigBee), network architectures (telephone, OSI, and Internet), and standard tools for administering and monitoring networks. Evaluation of network technologies and designs for supporting some services; design and configuring networks for those services. |
| Pre/ Co Requisites | CIS 211, CIS 212 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society |


|  |
| :--- | :--- |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 331 |
| Course Title | Network Introduction |
| Description | Introduction to network technologies (Ethernet, ATM, WiFi, Bluetooth, ZigBee), network architectures (telephone, OSI, and Internet), and standard tools for administering and monitoring networks. Evaluation of network technologies and designs for supporting some services; design and configuring networks for those services. |
| Pre/ Co Requisites | Prerequisites: CMP 157, CMP 167, CIS 212 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements. The existing prerequisite of CIS 212 is still a prerequisite for the current course.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite/Corequisite

2. From: Strikethrough the changes

| Department(s | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 341 |
| Course Title | Computer System Fundamentals |
| Description | Examination, removal, and reassembly of computer hardware components, such as processors, disks, memory, and buses. Installing and operating the following computer system components: operating systems, user interfaces, subsystems (such as Web servers), development environments, communications, and distributed file systems. Performance characteristics also will be discussed and measured. |
| Pre/ Co Requisites | CIS 211, CIS 212 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing Intensive, WAC, etc) |  |
| General Education Component | _X_ <br> Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression |


| Individual and Society |
| :--- | :--- |
| Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 341 |
| Course Title | Computer System Fundamentals |
| Description | Examination, removal, and reassembly of computer hardware components, such as processors, disks, memory, and buses. Installing and operating the following computer system components: operating systems, user interfaces, subsystems (such as Web servers), development environments, communications, and distributed file systems. Performance characteristics also will be discussed and measured. |
| Pre/ Co Requisites | Prerequisites: CMP 157, CMP 167 Pre or Corequisite: CIS 212 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [X]Yes []No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _ X_ $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements.
The existing corequisite of CIS 212 is still a corequisite for the current course.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite/Corequisite

2. From: Strikethrough the changes

| Department(s L) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 344 |
| Course Title | Database Design and Programming |
| Description | Programming in a database language. Emphasis on programming ideas and techniques and user interfaces in a modern database system. Review of elementary relational database concepts, with emphasis on programming rather than theory. |
| Pre/ Co Requisites | CIS 166, CIS 244 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _ X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 344 |
| Course Title | Database Design and Programming |
| Description | Programming in a database language. Emphasis on programming ideas and techniques and user interfaces in a modern database system. Review of elementary relational database concepts, with emphasis on programming rather than theory. |
| Pre/ Co Requisites | Prerequisites: CMP 157, CMP 167, CIS 244 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [X]Yes []No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements. The previously stated prerequisite of CIS 244 remains as a prerequisite for the current course.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Credits, Prerequisite/Corequisite
2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 345 |
| Course Title | Operating Systems |
| Description | Overview of operating systems (O.S.) from both a theoretical and a systems manager point of view. Process management and multitasking, memory management, resource management, file management, I/O management, command interpreter/shell, and shell scripts will be covered. Large networked systems will be discussed from a systems point of view. |
| Pre/ Co Requisites | CHE 166, CIS 211, CIS 212 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ]Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) | NA |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 345 |
| Course Title | Operating Systems |
| Description | Overview of operating systems (O.S.) from both a theoretical and a systems manager point of view. Process management and multitasking, memory management, resource management, file management, I/O management, command interpreter/shell, and shell scripts will be covered. Large networked systems will be discussed from a systems point of view. |
| Pre/ Co Requisites | Prerequisites: CMP 157, CMP 167, CIS 212 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [x] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The current allotted credits do not reflect the commitment required from the students. This is a 4 hour course with in depth study of Operating Systems, where the content has evolved to consist of extensive exploration and study. Furthermore, there was an error in the previous bulletin listing where CHE166 was stated to be the prerequisite instead of CIS166. The prerequisites of this course are
being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements in lieu of the removed courses. CIS166 has been replaced by CMP 157 and CMP 167, therefore the erroneous listing of CHE 166 is being corrected by replacing it with CMP 157 and CMP 167. CIS 212 remains as a prerequisite for the current course.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite and Credits

2. From: Strikethrough the changes

| Department(s | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 346 |
| Course Title | E-Commerce |
| Description | Introduction to electronic commerce on the Internet: Designing an ecommerce site including web Server installation, configuration, and tuning; web page content and development, site marketing and advertisement, legal and security considerations, shopping cart management, credit card and other debit transactions. |
| Pre/ Co Requisites | CIS 166, CIS 211 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _X_ <br> Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

$\qquad$
3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [X] Undergraduate [ ] Graduate |
| Academic Level | [ X]Regular [ ] Compensatory [ ] Developmental [ ]Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 346 |
| Course Title | E-Commerce |
| Description | Introduction to electronic commerce on the Internet: Designing an ecommerce site including web Server installation, configuration, and tuning; web page content and development, site marketing and advertisement, legal and security considerations, shopping cart management, credit card and other debit transactions. |
| Pre/ Co Requisites | CMP 157, CMP 167 |
| Credits | 4 |
| Hours | 4 Hours |
| Liberal Arts | [ ]Yes [X]No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education | _X_Not Applicable $\qquad$ |



## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements. The replacement of the prerequisite courses are CMP 157, CMP 167 which are the two programming courses that have been brought into the Computer Information Systems Major Requirements.

The change in credits is due to the required expansion of curriculum and the study of e-commerce since the inception of the course. The realm of e-commerce has undergone many changes in recent years, requiring technologists to vastly expand their knowledge and understanding of content development, web server installation and configuration, user interface creation, marketing, advertisement, privacy, security, financial transactions, shopping cart management and legal considerations. The immense changes in technology, the internet, and e-commerce in general dictate the requirement to expand the content of the course curriculum and thus the number of credits associated with the CIS 346 E-Commerce course.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite/Corequisite

2. From: Strikethrough the changes

| Department(s ) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 349 |
| Course Title | Data Communications and Distributed Networks |
| Description | Data communications: standard models, system operations, major components, digital transmission (including some current schemes such as SONET, ISDN and ATM). Hands-on introduction to local area network architectures, link-layer protocols and their design and analysis. |
| Pre/ Co Requisites | CIS 211, CIS 212 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _X_ <br> Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society |


|  |
| :--- | :--- |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Information Systems |
| Course Prefix \& Number | CIS 349 |
| Course Title | Data Communications and Distributed Networks |
| Description | Data communications: standard models, system operations, major components, digital transmission (including some current schemes such as SONET, ISDN and ATM). Hands-on introduction to local area network architectures, link-layer protocols and their design and analysis. |
| Pre/ Co Requisites | Prerequisites: CMP 157, CMP 167, CIS 212 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X]Yes []No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The prerequisites of this course are being changed due to the withdrawal of two courses (CIS 166 and CIS 211) from the Computer Information Systems Major Requirements and the addition of two courses (CMP 157 and CMP 167) to the Computer Information Systems Major Requirements in lieu of the removed courses.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Credits, Prerequisite/Corequisite, Description
2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X]Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 167 |
| Course Title | Programming Methods I |
| Description | Structured computer programming using a modern high-level programming language. Includes console I/O, data types, variables, control structures, including iteration, arrays, function definitions and calls, parameter passing, functional decomposition, and an introduction to objects. Debugging techniques. <br> Note: For students who intend to major in Computer Science, Mathematics, Computer Graphics and Imaging, or the sciences. Some previous computer programming experience is recommended. Not intended for students in Accounting or Computer Information Systems; the technical content is the same as CIS 166 but the emphasis is different. |
| Pre/ Co Requisites | Prerequisite MAT 104 or department placement |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science |


3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 167 |
| Course Title | Programming Methods I |
| Description | Structured computer programming using a modern high-level programming language. Includes console I/O, data types, variables, control structures, including iteration, arrays, function definitions and calls, parameter passing, functional decomposition, and an introduction to objects. Debugging techniques. <br> Note: For students who intend to major in Computer Science, Mathematics, Computer Graphics and Imaging, or the sciences. Some previous computer programming experience is recommended. Not intended for students in Accounting or Computer Information Systems. |
| Pre/ Co Requisites | Prerequisite: MAT 104 or higher Corequisite: CMP 157 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X]Yes [] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity |



## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The current allotted credits do not reflect the commitment required from the students. This is a 4 hour course for students who intend to major in Computer Science, Mathematics, Computer Graphics and Imaging, or the sciences. Students will be involved in experiential learning assignments and projects.

The CMP 167 course was initially 4 credits 4 hours and was converted to 3 credits 4 hours approximately a decade ago as part of changes made to the curriculum. The reversion to the initial 4 credits is overdue for many years now for multiple reasons. The CMP 167 course has undergone changes to the curriculum and requires extensive time and dedication from the students so they can learn the concepts of programming and be able to apply those concepts. This course is a 4 hour 4 credit lecture that has an associated lab component. The prerequisite for CMP 167 has changed from MAT 104 to MAT 108 due to the removal of MAT 104 from the catalog.
5. Date of departmental approval: March 01, 2022

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Corequisite, Description, General Education Component
2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [ x] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 168 |
| Course Title | Programming Methods II |
| Description | Continuation of parameter passing with a focus on devising function definitions and tracing recursive calls. Sorting and searching algorithms and a comparison of their performance. GUI programming. Threads, Exceptions and Exception Handling. Object Oriented Programming techniques. Lab exercises include designing, writing and debugging programs using commercial IDEs. |
| Pre/ Co Requisites | Prerequisite CMP 167 Grade of B- or better |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [x]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematical and Quantitative Reasoning $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [ x ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 168 |
| Course Title | Programming Methods II |
| Description | Continuation of parameter passing with a focus on devising function definitions and tracing recursive calls. Sorting and searching algorithms and a comparison of their performance. GUI programming. Exceptions and Exception Handling. Object Oriented Programming techniques. Designing, developing, and debugging programs using commercial IDEs. |
| Pre/ Co Requisites | Prerequisites: CMP 157, CMP 167 Grade of B- or better Corequisite: CMP 158 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics and Quantitative Reasoning $\qquad$ X Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society <br> X $\qquad$ Scientific World |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The co-requisite will enable application of the concepts learned and better coverage of the material.
This is a 4 hour course for students who intend to major in Computer Science, Mathematics, Computer Graphics and Imaging, or the sciences. Students will be involved in experiential learning assignments and projects.
5. Date of departmental approval: March 01, 2022

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Title, Prerequisite, Corequisite

2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [ x ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 232 |
| Course Title | Elementary-Discrete-Structures and Applications to Computer Science |
| Description | Sets, relations, and functions; propositional calculus, Boolean algebras, and combinatorial circuits, counting methods; proof techniques; analysis of algorithms; graphs and trees, puzzles; finite machines, sequential circuits, and recognizers. |
| Pre/ Co Requisites | Mat 172 or departmental placement or permission |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [x]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematical and Quantitative Reasoning $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [x]Regular [ ]Compensatory [ ]Developmental [ ]Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 232 |
| Course Title | Discrete Mathematics |
| Description | Sets, relations, and functions; propositional calculus, Boolean algebras, and combinatorial circuits, counting methods; proof techniques; analysis of algorithms; graphs and trees, puzzles; finite machines, sequential circuits, and recognizers. <br> Note: Students who earned a grade below B- in MAT 172 are strongly urged to speak to an adviser in the Department of Mathematics and Computer Science prior to registering fort CMP 232 |
| Pre/ Co Requisites | Prerequisite: MAT 172 <br> Pre or Co-Requisites: MAT 175, CMP 157, CMP 167 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [x]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | $\qquad$ |

$\qquad$ Flexible
___ World Cultures US Experience in its Diversity Creative Expression
___Individual and Society
$\qquad$ Scientific World
4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):
a. Course title was changed to more accurately represent the contents of the course
b. New co-requisites will enable better coverage of the material: knowledge of limits from Mat 175 will allow to better cover the topic of Orders of Growth in CMP 232, while basic knowledge of algorithmic concepts from CMP 167 will enable application of the theoretical material to algorithms without the need to teach the topic from scratch.
5. Date of departmental approval: 1/26/2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Title, description
2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [ x ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 338 |
| Course Title | Data Structures-and Algorithms + |
| Description | Abstract characterizations of data structures such as arrays, stacks, queues, trees and graphs will be studied along with algorithms that make use of such structures, including algorithms for sorting, searching, and memory management. Implementation issues will be eonsidered, and students will write programs that embody these structures and algorithms. |
| Pre/ Co Requisites | Prerequisites: CMP 232, and CMP 326 or CMP 168 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [x]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [x]Regular [ ]Compensatory [ ] Developmental [ ]Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 338 |
| Course Title | Data Structures |
| Description | Abstract characterizations of data structures, analysis and implementation of algorithms for sorting, searching, and memory management. |
| Pre/ Co <br> Requisites | Prerequisites: CMP 232, and CMP 157 and CMP 168 Pre or Corequisite CMP 269 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [x]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component |  |

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

Course name has been changed to better reflect the contents of the course. The course description has been modified to better represent the course curriculum. A greater emphasis will be given to the data structures and less to the analysis of algorithms in CMP 338. CMP 326 is the new course code for CMP 168 which explains why either course can be counted as a prerequisite.
5. Date of departmental approval: 1/26/2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Credits

2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ X ] Undergraduate [ ] Graduate |
| Academic Level | [ X ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 405 |
| Course Title | Introduction to Networks |
| Description | Introduction to network protocols and algorithms. Intensive study of the most important protocols at each layer. Examination of their strengths and weaknesses. Basic algorithms for identifying primary servers, constructing forwarding and broadcasting trees, and determining routing tables. Writing a simple networking service at the I.P. layer or higher. Lab exercises include building and testing small networks. |
| Pre/ Co Requisites | Prerequisite CMP 334 and CMP 338 |
| Credits | 3 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) |  |
| General Education Component | __X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society |


|  |
| :--- | :--- |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [X] Undergraduate [ ] Graduate |
| Academic Level | [ X]Regular [ ] Compensatory [ ] Developmental [ ]Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 405 |
| Course Title | Introduction to Networks |
| Description | Introduction to network protocols and algorithms. Intensive study of the most important protocols at each layer. Examination of their strengths and weaknesses. Basic algorithms for identifying primary servers, constructing forwarding and broadcasting trees, and determining routing tables. Writing a simple networking service at the I.P. layer or higher. Lab exercises include building and testing small networks. |
| Pre/ Co Requisites | Prerequisites CMP 334 and CMP 338 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [X]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

The current allotted credits do not reflect the commitment required from the students. This is a 4 hour course for students who intend to major in Computer Science, or the sciences. Students will be involved in experiential learning assignments and projects.

The immense changes and vast expansion in technology, networks, data transfer protocols and algorithms used since the inception of the course have forced the expansion of the course's curriculum and thus require an increase in the number of credits associated with the course. Introduction to network protocols and algorithms. Intensive study of the most important protocols at each layer. Examination of their strengths and weaknesses. Basic algorithms for identifying primary servers, constructing forwarding and broadcasting trees, and determining routing tables. Writing a simple networking service at the I.P. layer or higher. Lab exercises include building and testing small networks.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Title, description
2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [ x ] Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 410 |
| Course Title | Data Structures and Algorithms II |
| Description | Design and analysis of algorithms: Worst and average case behavior. Design strategies, such as divide and conquer, the greedy principle, dynamic programming, and backtracking, are illustrated by examples chosen from sorting and searching, applications of graph theory,scheduling, pattern matching, matrix multiplication, and other topics. NP-complete problems. Parallel processing and algorithms. |
| Pre/ Co Requisites | Prerequisites: CMP 338 and MAT 313 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [x]Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

3. To: Underline the changes

| Department(s) | Computer Science |
| :--- | :--- |
| Career | $[x]$ Undergraduate [ ] Graduate |
| Academic <br> Level | $[x]$ Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix <br> \& Number | CMP 410 |
| Course Title | Design and Analysis of Algorithms |
| Description | Design strategies and analysis of algorithms: dynamic programming, <br> scheduling, pattern matching, matrix multiplication, and other topics. <br> NP-complete problems. |
| Pre/ Co <br> Requisites | Prerequisites: CMP 338 and MAT 313 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | $[x]$ Yes [ ] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) | General <br> Education <br> Component |

$\qquad$ Flexible
___ World Cultures US Experience in its Diversity Creative Expression
___Individual and Society
$\qquad$ Scientific World

## 4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

Course name has been changed to better reflect the contents of the course. The course description has been modified to better represent the course curriculum. A greater emphasis will be given to the analysis of algorithms in CMP 410 and less to data structures themselves.
5. Date of departmental approval: $1 / 26 / 2021$

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

## 1. Type of Change: Prerequisite, Corequisite

2. From: Strikethrough the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [x]Regular [ ] Compensatory [ ] Developmental [ ] Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 428 |
| Course Title | Video Game Programming |
| Description | General game architecture, asynchronous input, animated sprites, action oriented A.I., collision detection, scrolling, sound clips, 3D graphics. Student projects involving development of several video games, both individually and in teams. <br> Note: Students should expect to devote a great deal of time working both individually and in teams to produce several video games written in Java. This is a Programming Intensive course. |
| Pre/ Co Requisites | Prerequisite CMP 338 Corequisite MAT 226 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X] No |
| Course Attribute (e.g. Writing Intensive, WAC, etc) |  |
| General Education Component | X_Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematical and Quantitative Reasoning $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society |


|  | Scientific World |
| :--- | :--- |

3. To: Underline the changes

| Department(s) | Computer Science |
| :---: | :---: |
| Career | [ x ] Undergraduate [ ] Graduate |
| Academic Level | [ x] Regular [ ] Compensatory [ ] Developmental [ ]Remedial |
| Subject Area | Computer Science |
| Course Prefix \& Number | CMP 428 |
| Course Title | Video Game Programming |
| Description | General game architecture, asynchronous input, animated sprites, action oriented AI, collision detection, scrolling, sound clips, and 3D graphics. Student projects involving development of several video games, both individually and in teams. <br> Note: Students should expect to devote a great deal of time working both individually and in teams to produce several video games. This is a Programming Intensive course. |
| Pre/ Co Requisites | Prerequisite CMP 338 <br> Prerequisite or Corequisite MAT 313 |
| Credits | 4 |
| Hours | 4 |
| Liberal Arts | [ ] Yes [X] No |
| Course <br> Attribute (e.g. <br> Writing <br> Intensive, <br> WAC, etc) |  |
| General Education Component | _ Not Applicable $\qquad$ Required $\qquad$ English Composition $\qquad$ Mathematics and Quantitative Reasoning $\qquad$ Science $\qquad$ Flexible $\qquad$ World Cultures $\qquad$ US Experience in its Diversity $\qquad$ Creative Expression $\qquad$ Individual and Society $\qquad$ Scientific World |

4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

MAT 313: Elements of Linear Algebra is now a better corequisite than MAT 226 Vector Calculus due to the nature of the material covered in CMP 428. Since the development of CMP 428 Video Game Programming, the curriculum for both MAT 313 and MAT 226 have changed. MAT 226 is no longer a prerequisite for MAT 313 and MAT 313 contains more topics relevant to the concepts addressed in CMP 428. These topics include matrix/vector operations and linear transformations, which are not discussed in MAT 226.
5. Date of departmental approval: March 24, 2021

## LEHMAN COLLEGE <br> OF THE <br> CITY UNIVERSITY OF NEW YORK

## DEPARTMENT OF COMPUTER SCIENCE

## CURRICULUM CHANGE

1. Type of Change: Courses Withdrawn
2. Description:

Withdrawn Courses:

CIS 166 - Computer Programming for Information Processing I
CIS 211 - Computer Information Systems
CIS 228 - The Internet
CIS 246 - E-Commerce
3. Rationale (Explain why this course/program is no longer needed in the Department):

In the rapidly changing field of Computer Information Systems, the current major is no longer serving our students' needs.

The new major is now divided into core requirements that all CIS majors must complete. These requirements provide our students with the foundation they will need to complete their undergraduate studies and will prepare them for possible graduate studies going forward.

In addition, the major now includes multiple specialization tracks which students can choose from. Students need only complete one track in order to complete the major. However, they may choose to add additional track(s) if they wish.

Lastly, it was discovered that one course (CIS 246) was incorrectly listed on website presenting the Lehman College Course Catalog.

CIS 166 - is very similar to CMP 167. CIS majors will now be required to take CMP 167 instead of CIS-166.

CIS 211 - The content of this course has become obsolete and is not contributing to the students' education.

CIS 228 - The content of this course is very similar to the newly introduced course CMP 128 which will be its replacement. CIS majors will now be required to take CMP 128 as their first course in the CIS Major in an attempt to ease them into programming. CMP 128 will be the prerequisite for CMP 167.

CIS 246 - The course is a duplicate of the correct course CIS 346 on the course catalog.
4. Date of departmental approval: March 24, 2021

# LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK 

## DEPARTMENT OF SOCIAL WORK

## CURRICULUM CHANGE

Name of Program and Degree Award: Aging (Interdisciplinary Minor)
Effective Term: Fall 2023

## 1. Type of Change: Degree Requirements

## 2. From: <br> Aging (Interdisciplinary Minor)

The Interdisciplinary Minor in Aging will engage students from all Departments across different Schools within the College in a common goal of scholarship in the area of aging; it will also prepare students interested in working professionally in the field of aging. A range of relevant courses representing the College's broad curricular offerings will be available to students to provide an understanding of aging from various perspectives. The Minor will be of interest to students who are majoring in several departments in the Natural and Social Sciences, including but not limited to Anthropology, Biology, Economics, Health Sciences, Nursing, Psychology, Social Work, and Sociology, as well as to students majoring in such Arts and Sciences disciplines as Art, History, Literature, Music, and Speech-Language-Hearing Sciences.

## Degree Requirements

Students will complete four courses ( 12 credits) at the 200 - and 300 -level. At least six credits must be taken in 300-level courses, or a higher-level course approved by the Program. No more than 6 credits may be taken in any one department.
Students will select in consultation with their advisor from the following menu of relevant 3 -credit courses offered in various departments in the Schools of Natural and Social Sciences and Health Sciences, Human Services, and Nursing:

## 200 level courses:

## Credits

PSY 219 Psychology of Adulthood and aging 3
SOC 243 The Aged in Modern Society 3
SWK 242 Social Work Practice with Older Adults 3

Any relevant 200-level course approved by the program.

## 300-level courses or a higher-level course approved by the program:

|  |  | Credits |
| :--- | :--- | :--- |
| HEA 310 | Health and Aging | 3 |
| HEA 336 | Perspectives on Death and Dying | 3 |
| PSY 366 | Clinical Neuropsychology | 3 |
| SOC 343 | Sociological Theories of Aging | 3 |
| SPV 300 | Neurolinguistics of Aging | 3 |
| SWK 342 | Social Work Policies in an Aging Society | 3 |
| Any relevant 300-levelcourse or higher course-approved by the Program. |  |  |
| 3. To: |  |  |
| Aging (Interdisciplinary Minor) |  |  |

The Interdisciplinary Minor in Aging will engage students from all Departments across different Schools within the College in a common goal of scholarship in the area of aging; it will also prepare students interested in working professionally in the field of aging. A range of relevant courses representing the College's broad curricular offerings will be available to students to provide an understanding of aging from various perspectives. The Minor will be of interest to students who are majoring in several departments in the Natural and Social Sciences, including but not limited to Anthropology, Biology, Economics, Health Sciences, Nursing, Psychology, Social Work, and Sociology, as well as to students majoring in such Arts and Sciences disciplines as Art, History, Literature, Music, and Speech-Language-Hearing Sciences.

## Degree Requirements

Students will complete four courses (12 credits) at the 200- and 300-level. At least six credits must be taken in 300 -level courses, or a higher-level course approved by the Program. No more than 6 credits may be taken in any one department. Students will select in consultation with their advisor from the following menu of relevant 3-credit courses offered in various departments in the Schools of Natural and Social Sciences and Health Sciences, Human Services, and Nursing:

## 200 level courses:

Credits
PSY 219 Psychology of Adulthood and aging
PSY 245 Psychological Testing and Assessment
3
SOC 243 The Aged in Modern Society 3
SWK 242 Social Work Practice with Older Adults

## 300-level courses or a higher-level course approved by the program:

Credits
HEA 310 Health and Aging 3
HEA 336 Perspectives on Death and Dying 3
PSY 366 Clinical Neuropsychology 3
SOC 343 Sociological Theories of Aging 3
SPV 300 Neurolinguistics of Aging 3
SWK 342 Social Work Policies in an Aging Society 3
THR 325 Therapeutic Recreation in Long-Term Care $\underline{3}$

## 4. Rationale:

The addition of PSY 245 will allow students in the aging minor to learn about methods of assessment and the use of psychological tests that assess the unique characteristics and abilities of the individual (e.g., personality and cognitive functioning). This knowledge will prepare students to understand and assess abilities and impairments in cognitive functioning of older adults. This addition will provide students with more options to choose from the minor.

The addition of the THR 325 is relevant in the area of aging and will allow students who are minoring in aging explore older adults who live with one or more disabling conditions in long-term care settings. Also, this addition helps students to have more options to choose from the minor to graduate on time.
5. Date of departmental approval: November 30, 2022

## Library Technology and Telecommunications Committee Report

## Library

- Library is pleased to announce patrons (Students, Staff and Faculty) may borrow materials for 8 weeks and renew the materials up to 4 - times. Patrons may borrow materials for a total of 40 - weeks. Materials that are not returned on-time accrue a fine of $\$ 1.00$ per day.
- Library, School of Education, Speech-Language-Hearing Sciences invite you to in-person Reading with children's book author and bilingual speech pathologist Karina Gonzalez, Wednesday, March 22 ${ }^{\text {nd }}$, 5:30-7:00 PM, Library Classroom A on Concourse level. Registration on Library Homepage.


## Information Technology

- As you know, the Help Desk assists the College community through many channels: email, chat, phone and in-person. Often the same user reaches out via all channels resulting in inefficiencies and delays in the IT service delivery. Most issues can be resolved through these channels with the exception of requesting access or resetting a password through e-mail because an user's identity must be verified to reset a password. We have set up an auto-reply email asking users who email the Help Desk with password issues to join the IT Virtual LehmanQ. We have introduced a change to this system to ask the user to let us know whether they want to get a Zoom meeting or phone call when they join the LehmanQ virtual line. Or the user can set up set up an appointment for another day/time. Because of these modifications, there is now a separate Help Desk link in the Lehman 360 App. In-person visits is also available through the LehmanQ.
- IT will be rolling out ServiceNow in the Spring to replace our current TrackIT system. ServiceNow is an enterprise IT Service Management platform which allows users to submit their own tickets and be automatically routed to the appropriate Lehman IT areas. This self-service will streamline the turnaround time and improve customer service. Our IT Division has been using the platform for several months and will begin marketing and training the College community in April, beginning with non-academic areas first. We seek everyone's cooperation in using ServiceNow for IT support. CUNY has already transitioned to ServiceNow which replaced CUNYfirst CRM. Many of you are already familiar.
- Lehman College has been recognized by CUNY Central as a leader in automating business processes. Processes built and developed by Lehman are being used at other colleges throughout CUNY. An example of this is CUNY Transfer Explorer (TREX), a
homegrown application that is now offered as a shared-service and used CUNY-wide. Among several features, TREX (https://explorer.cuny.edu/) shows how courses transfer in all directions across CUNY and non-CUNY colleges. Since its released, TREX has had $86 \mathrm{~K}+$ unique visitors
- The Lehman website continues to go through transformations, a redesign, and updates. The newest "in-progress" update to the Lehman website is our Events Calendar and Campus Directory. These new solutions bring a modern design, a complete mobile responsive look and feel, and an easy-to-use TerminalFour (CMS) application where departments can enter their own events or directory changes. We are happy to report that we are about to complete the User Acceptance Testing (UAT) phase of this project. The next phase is planning a campus-wide rollout which includes trainings, how-to short videos and step-by-step guides.
- Our Student Evaluation of Teaching and Learning (SETL) platform (ClassClimate) is being upgraded with a version that brings enhanced analytics, single sign-on, dashboards for administrators and instructors, integration with BB to make it easier for students to complete the survey and more. The upgraded version will be in place for the Spring 2023 SETL period.


## Blackboard

- Blackboard ALLY - the platform to assist instructors in creating accessible courses for all - is now available in all Bb courses. Faculty Training will be offered during the spring semester. Please keep an eye on your email to register for ALLY Faculty Training
- The Bronx Ed Tech Showcase is will be held on Friday, May $5^{\text {th }}$ 2023. The Showcase will be celebrating its $10^{\text {th }}$ Year. The Showcase is a collaborative event between the three Bronx CUNY colleges and is open to the CUNY Community. Please consider submitting a proposal to present at the showcase. Submission Deadline is March $5^{\text {th }}$. Google: Bronx Ed Tech Showcase and click LEARN MORE
- CUNY is still working on the contract to move from Bb to Desire2Learn. We have no other news on the change in LMS.


## Online Education

- Preparation for Teaching Online: A Foundational Workshop for Faculty, will be offered twice in the upcoming months from April $7^{\text {th }}$ to the April $30^{\text {th }}$ and then from August $7^{\text {th }}$ to the August $20^{\text {th }}$.
- Enhancing Your Online of Hybrid Course Through the Use of Open Educational Resources (OER) Workshop, will be offered from March $13^{\text {th }}$ to March $26^{\text {th }}$.
- Course Design Institute is being offered between March $15^{\text {th }}$ and August $20^{\text {th }}$. For More Information, please contact the Office of Online Education

The Committee on Assessment will have met twice since our last report of December 2022 (February 6 and 27, 2023)

## On February 6

$\checkmark$ Per suggestions that came from the Senate floor, it was decided that the Office of Assessment will draft a guideline to help clarify the recommended length of assessment cycles and how often goals should be assessed.
$\checkmark 90 \%$ of AES and Academic units have posted learning/performance goals on their website. This is great progress since Middle State's last visit. More work can be done to harmonize the information (for instance where it is found on the page). The committee therefore suggested that Associate Deans contact programs directly and potentially work with a web design team to achieve this before a set deadline (TBD).
$\checkmark$ There has been a number of workshops on Watermark. The committee reiterated its commitment to the deployment of the reporting platform and the fact that it should be done in a way to make learning/student goals more manageable.

## On February 27

$\checkmark$ Drs. Jayatta Jones, Jermaine Wright, and Conrad Walker are scheduled to present at our February 27 meeting. They will highlight assessment efforts at the Division of Student Affairs, using the NASPA PRACTICES self-assessment. An invitation was extended to them in order to understand the scope and nature of assessment activities in AES units.

NOTE ABOUT MEETINGS: During the Spring of 2023, Committee meetings will continue to be held via Zoom on select Mondays, typically at 1PM or 1:30PM.

## Joint Budget and Long-Range Planning Committee

## Meeting called to order at 1:00 pm on February $15^{\text {th }} 2023$

Membership and Attendance: Boldface $=$ Attended

Faculty Senators
Rafael Gonzalez
Theresa Lundy
Brian Murphy
Alexander Nunez-Torres
Rene Rotolo
Ruth Wangerin

Student Senators
Kayshaun Higgs
Taslima Khatun
Sandra Mathura

FP\&B Members
Marie Marianetti
Brian Murphy
Wesley Pitts

Administration
Peter Nwosu
Bethania Ortega
Rene Rotolo

Guests
Dawn Ewing Morgan

## All Remain Funded

$1^{\text {st }}$ Phase: 14 Lecturers - Started Fall 2022
$2^{\text {nd }}$ Phase: 14 Lecturers - To Start Fall 2023

3rd Phase: 7 Tenure Track - To Start Fall 2023
Assistant Professor Lines

## Lehman College Financial Plan Update

## FY 2023 Financial Plan - Mid-Year Update (000)

## Current Budget

Tuition Revenue Above Target
Total Campus Based Resources
Centrally Administered Resources
Total Resources (\$000)

## PS Regular

Adjuncts
Temporary Services
Total PS
OTPS
Total Campus Based Expenditures
Centrally Administered Expenditures
Total Expenditures (\$000)

## Fringes

Energy
Building Rentals
Financial Aid
Total Centrally Administered Funds (\$000)
Balance (\$000)
Stimulus Funds for Pandemic Related Expenses Stimulus Funds Revenue Loss Prior Year CUTRA and Reserves

Projected Year-End Balance (\$000)

| Prior Year Actuals | MY Projection | Latest Quarter vs Prior Year Year [\$] | Latest Quarter vs Prior Year Year [\%] |
| :---: | :---: | :---: | :---: |
| 115,074 | 122,476 | 7,402 | 6\% |
| $(4,136)$ | $(8,826)$ | $(4,690)$ | 113\% |
| 110,939 | 113,650 | 2,711 | 2\% |
| 57,747 | 64,617 | 6,870 | 12\% |
| 168,686 | 178,267 | 9,582 | 6\% |
| 85,376 | 87,945 | 2,569 | 3\% |
| 19,881 | 20,290 | 409 | 2\% |
| 4,848 | 5,269 | 421 | 9\% |
| 110,104 | 113,504 | 3,400 | 3\% |
| 15,804 | 17,128 | 1,324 | 8\% |
| 125,908 | 130,632 | 4,723 | 4\% |
| 57,747 | 64,617 | 6,870 | 12\% |
| 183,655 | 195,249 | 11,594 | 6\% |
| 50,178 | 55,891 | 5,712 | 11\% |
| 4,829 | 5,879 | 1,050 | 22\% |
| 979 | 1,087 | 108 | 11\% |
| 1,761 | 1,761 | - | 0\% |
| 57,747 | 64,617 | 6,870 | 12\% |
| (14,970) | $(16,982)$ | $(2,012)$ | 13\% |
| 10,029 | 8,740 | $(1,289)$ | -13\% |
| 4,940 | 8,241 | 3,301 | 67\% |
| 23,754 | 23,754 | - | 0\% |
| 23,754 | 23,754 | 0 | 0\% |

- Revenue from tuition is down more than expected.
- The anticipated deficit at year end is $\$ 16,982,000$.
- This year the deficit will be funded largely with Federal Stimulus funds.


## FY 2023 Financial Plan - Mid-Year Update (000)

|  | Total Colleges Resources | Total Obligations | Balance without Stimulus Funds | Stimulus <br> Funds for <br> Pandemic <br> Related <br> Expenses | Adjusted <br> Balance | Stimulus Funds Revenue Loss | Prior Year CUTRA and Reserves | Projected <br> Year-End <br> Balance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baruch College | 253,346 | 263,855 | $(10,509)$ | 12,783 | 2,274 | - | 12,551 | 14,825 |
| Brooklyn College | 210,258 | 234,653 | $(24,394)$ | 1,618 | $(22,776)$ | 22,776 | 5,757 | 5,757 |
| City College | 281,737 | 304,191 | $(22,454)$ | 7,000 | $(15,454)$ | 15,454 | 14,169 | 14,169 |
| Hunter College | 310,813 | 332,288 | $(21,475)$ | 17,214 | $(4,261)$ | 4,261 | 6,301 | 6,301 |
| John Jay College | 197,866 | 214,140 | $(16,274)$ | 7,649 | $(8,625)$ | 8,625 | 7,947 | 7,947 |
| Lehman College | 178,267 | 195,249 | $(16,982)$ | 8,740 | $(8,241)$ | 8,241 | 23,754 | 23,754 |
| Medgar Evers College | 82,928 | 92,403 | $(9,475)$ | 1,883 | $(7,591)$ | 7,591 | 99 | 99 |
| NYC College of Technology | 168,114 | 189,167 | $(21,053)$ | 2,500 | $(18,553)$ | 18,553 | 218 | 218 |
| Queens College | 215,955 | 229,837 | $(13,882)$ | 1,356 | $(12,526)$ | 12,526 | 1,778 | 1,778 |
| College of Staten Island | 152,349 | 169,638 | $(17,289)$ | 1,916 | $(15,373)$ | 7,923 | 71 | $(7,379)$ |
| York College | 92,841 | 105,329 | $(12,488)$ | 1,305 | $(11,183)$ | 7,125 | 173 | $(3,886)$ |
| Senior Colleges Total | 2,144,474 | 2,330,750 | $(186,276)$ | 63,965 | $(122,311)$ | 113,077 | 72,818 | 63,584 |

- Lehman's resources (revenue) versus obligations (expenses) will end the fiscal year just under \$17 million dollar deficit
- The stimulus funds are in 2 categories
- Reimbursement for COVID related expenses funded to the end of the fiscal year
- Revenue loss


## Operating Budget Trend: by Source (000)

| Source | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 1 | 1 Year $\triangle$ | 7 Year $\Delta$ | 7 Year $\Delta$ | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tuition Revenue | 63,861 | 68,853 | 71,310 | 77,068 | 82,315 | 85,671 | 94,277 | 83,952 | -11\% | 31\% | 20,091 | 31\% |
| State/Campus | 29,257 | 22,497 | 42,902 | 26,515 | 26,975 | 22,116 | 25,373 | 26,987 | 6\% | -8\% | $(2,270)$ | -8\% |
| State/CUNY | 44,165 | 47,947 | 51,752 | 52,437 | 54,212 | 51,363 | 49,405 | 57,747 | 17\% | 31\% | 13,582 | 31\% |
| Total | 137,283 | 139,297 | 165,964 | 156,020 | 163,502 | 159,150 | 169,055 | 168,686 | 0\% | 23\% | 31,403 | 23\% |
| Collections vs Target (Tuition Revenue) | 1\% | 4\% | 4\% | 9\% | 6\% | 2\% | 10\% | -5\% |  |  |  |  |
| *Tuition Revenue represents cash collections as of June $30^{\text {th }}$; |  |  |  | 70,000 | Fr2015 | Fr2016 | Fr2017 | Fr2018 Fr2019 | 19 Fr220 | Fr2021 | Fr202 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| *Total includ | es Centra Allocation | lly Mana |  |  |  |  |  |  |  |  |  |  |  | bargaining for various unions

- The slide shows Lehman's overall operating budget which includes CUNY managed funds for fringe benefits, utilities and rent over the past 7 years from FY2015 to FY2022.
- After 7 years of tuition revenue increases there is a sharp decline in tuition revenue from FY21 to FY22.


## Campus Operating Expenses Trend: by Type

 (000)| Expense Type | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | $\frac{\text { FY } 2022}{\% \text { of Total }}$ | 1 Year $\Delta$ | Year $\Delta$ | ear $\Delta$ | 7 Year $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PS Regular | 68,949 | 69,849 | 90,231 | 77,296 | 78,947 | 84,943 | 83,747 | 85,376 | 68\% | 2\% | 1\% | 8\% | 24\% |
| Adjuncts | 9,108 | 9,898 | 14,148 | 14,624 | 15,785 | 17,596 | 18,725 | 19,881 | 16\% | 6\% | 13\% | 26\% | 118\% |
| Temps | 3,328 | 3,237 | 4,487 | 4,032 | 4,731 | 4,626 | 3,364 | 4,848 | 4\% | 44\% | 5\% | 2\% | 46\% |
| Total Personnel | 81,386 | 82,984 | 108,866 | 95,952 | 99,463 | 107,165 | 105,836 | 110,105 | 87\% | 4\% | 3\% | 11\% | 35\% |
| OTPS | 6,958 | 6,532 | 6,128 | 6,314 | 7,701 | 6,268 | 6,065 | 15,804 | 13\% | 161\% | 152\% | 105\% | 127\% |
| Total Operating Expenses * | 88,343 | 89,516 | 114,994 | 102,266 | 107,164 | 113,433 | 111,901 | 125,909 | 100\% | 13\% | 11\% | 17\% | 43\% |



*FY2022: one year growth 13\%; seven year 43\%; include pandemic related cost

- The slide shows operating expenses by type over the past 7 years from FY15 to FY22.
- Expenses have steadily increased.


## Declining Enrollment at Lehman Headcount




- Fall 2022: down by 1,272 students, 9\% (F21), 14\% (F20) and 12\% (F19)
- Spring 2023: down by 882 students, $7 \%$ (S22), 12\% (S21) and 14\% (S20)
- The slide shows enrollment for Fall 2019 through Fall 2022.
- Enrollments went from 15,126 enrolled students in Fall 2020 to 12,976 in Fall 2022.
- There is normally a drop in enrollment from fall to spring, but it is greater than normal now.


## Declining Tuition Revenue (Cash-Deposits)

|  | Actuals |  |  |  |  | Estimated as of January 18, 2023 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fall 21 | Spring 22 | Subtotal | Summer | FY2022 | Fall 22 | Spring 23 | Subtotal | Summer | FY2023 |
| Gross Revenue | 43,803 | 42,005 | 85,808 | 9,575 | 95,383 | 39,618 | 38,649 | 78,267 | 9,186 | 87,453 |
| Less Waivers | $(3,398)$ | $(3,061)$ | $(6,459)$ | (456) | $(6,915)$ | $(2,951)$ | $(2,836)$ | $(5,787)$ | (272) | $(6,059)$ |
| Fees | 194 | 124 | 318 | 32 | 350 | 137 | 116 | 253 | 13 | 266 |
| Net Revenue (billable) | 40,598 | 39,069 | 79,667 | 9,151 | 88,819 | 36,804 | 35,929 | 72,733 | 8,928 | 81,660 |
| Tuition Revenue Collections | $36,056$ | 33,260 | $69,317$ | 7,970 | $77,287$ | $32,686$ | 30,587 | 63,273 | 7,972 | 71,245 |
| Collection Rate | 88.8\% | 85.1\% | 87.0\% | 87.1\% | 87.0\% | 88.8\% | 85.1\% | 87.0\% | 89.3\% | 87.2\% |
| Prior-Year Tuition Revenue Cash Collections |  |  |  |  | \$6,666 |  |  |  |  | \$6,370 |
| Total Cash Collections (Actual + Prior Year) |  |  |  |  | 83,952 |  |  |  |  | 77,615 |
| Tuition Revenue Target |  |  |  |  | 88,088 |  |  |  |  | 86,160 |
| Cash Collections Above/(Below) Revenue Target |  |  |  |  | $(4,136)$ |  |  |  |  | $(8,545)$ |

- FY23 Gross Revenue down by $\$ 7.9$ million (fall down $9 \%$ and $8 \%$ in spring)
- Both FY's include non-recurring Federal Stimulus dollars offsetting student debts
- FY23 anticipated 10\% tuition revenue collections below the revenue target of $\$ 86.2$ million
- Collections rates pre-COVID ranged between 92-94 percent
- Lehman did not meet the revenue target in FY22
- Lehman will not meet the revenue target in FY23.
- Lehman has also experienced a decline in tuition collection.
- In the past collection rates were at 92-94\% of net revenue.
- Now averaging just an $87 \%$ collection rate of net revenue.


## Preliminary Financial Plan Forecast - Fy 2024-2025

## What is expected?

How might it be handled?

## Preliminary Financial Plan Forecast - FY 2024-2025

(000)

| Expense Type | FY2023 <br> (Mid-Year) | FY2024 | $\begin{array}{\|c} 1 \text { Year } \\ \Delta \end{array}$ | Targeted <br> Savings/Cuts |  | FY2024 Adjusted | FY2025 | $\begin{array}{\|c} 2 \text { Year } \\ \Delta \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PS Regular (inc. vacant) | 87,945 | 100,025 | 14\% | $(4,600)$ | -5\% | 95,425 | 96,625 | 10\% |
| PS Adjunct | 19,278 | 19,278 | 0\% | $(1,500)$ | -8\% | 17,778 | 17,778 | -8\% |
| PS Temp Services | 6,281 | 4,147 | -34\% | (700) | -17\% | 3,447 | 3,447 | -45\% |
| OTPS | 17,128 | 11,168 | -35\% | $(1,800)$ | -16\% | 9,368 | 7,254 | -58\% |
| Total Operating Expenses | 130,632 | 134,619 | 3\% | $(8,600)$ |  | 126,019 | 125,104 | -4\% |
|  |  |  |  |  |  | 105,700 |  |  |
| Estimated Shortfall |  | (28,919) |  |  |  | (20,319) | $(15,717)$ |  |
| Proj. Year-End Balance |  | (28,919) |  |  |  | 1,548 | (415) |  |

## FY24 Expenses $\rightarrow \$ 134.6 \mathrm{~m}$

-PS Regular $\rightarrow$ annual cost for active employees, vacant lines, including step increases
-Adjunct $\rightarrow$ based prior year
-Temp \& OTPS $\rightarrow$ FY23 approved budget, excluding CRRSAA

## FY24 Shortfall \$28.9m

-Reduce expenses $\rightarrow \$ 8.6$ million -CUTRA reserves $\rightarrow \$ 10$ million (leaves $\$ 13 \mathrm{~m}$ to offset FY25 shortfall
-FY23 Federal Stimulus $\rightarrow$ \$11.9m

## FY25 Shortfall \$15.7m

-Reduce OTPS $\rightarrow \$ 2.1$ million -CUTRA reserves $\rightarrow \$ 13.8$ million (depleted)
-FY24 Projected Year-End Balance $\rightarrow \$ 1.6 \mathrm{~m}$

- FY24 revenue is based upon:
- 3\% enrollment decline
- reduced revenue target, which reduces Lehman's operating budget
$3 \%$ maybe optimistic given the $9 \%$ decline experienced recently.


## Preliminary Financial Plan Forecast - FY 2024-2025

(000)

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-FY24 Projected Year-End Balance $\rightarrow \$ 1.6 \mathrm{~m}$

- 1st column shows FY23 mid-year operating expenses.
- 2nd column shows projected FY24 operating expenses.


## Preliminary Financial Plan Forecast - FY 2024-2025

(000)

| Expense Type | FY2023 <br> (Mid-Year) | FY2024 | $\begin{array}{\|c} 1 \text { Year } \\ \Delta \end{array}$ | Targeted <br> Savings/Cuts |  | FY2024 Adjusted | FY2025 | $\begin{array}{\|c} 2 \text { Year } \\ \Delta \end{array}$ |
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-FY24 Projected Year-End Balance $\rightarrow \$ 1.6 \mathrm{~m}$

- The increase in PS Regular, which is all full time employees, is based upon all currently filled lines plus all open and vacant lines being filled.
- PS temp services and OTPS decrease in the second column because federal stimulus funded staff, supplies and other expenditures have been eliminated.


## Preliminary Financial Plan Forecast - FY 2024-2025

(000)

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-Reduce OTPS $\rightarrow \$ 2.1$ million -CUTRA reserves $\rightarrow \$ 13.8$ million (depleted)
-FY24 Projected Year-End Balance $\rightarrow \$ 1.6 \mathrm{~m}$

- FY24 operating expenses are forecast to be $\$ 134,619,000$.
- FY24 operating budget is forecast to be $\$ 105,700,000$.
- This is a shortfall of just under $\$ 29$ million.


## Preliminary Financial Plan Forecast - FY 2024-2025

(000)

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- The column labeled targeted savings shows the proposed reductions in each area for a total of $\$ 8.6$ Million in savings.


## Preliminary Financial Plan Forecast - FY 2024-2025

(000)

| Expense Type | FY2023 <br> (Mid-Year) | FY2024 | $\begin{array}{\|c} 1 \text { Year } \\ \Delta \end{array}$ | Targeted <br> Savings/Cuts |  | FY2024 Adjusted | FY2025 | $\begin{array}{\|c} 2 \text { Year } \\ \Delta \end{array}$ |
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-FY24 Projected Year-End Balance $\rightarrow \$ 1.6 \mathrm{~m}$

- FY24 adjusted operating expenses of $\$ 126$ mil lead to a $\$ 20.3$ mil shortfall
- This will be funded with both federal stimulus dollars Lehman and CUTRA.

If this downward enrollment trend continues, if additional funding is not provided by the state, all reserves will be depleted in FY25 and Lehman will need to implement plans for additional saving.

## February Meeting Overview

Committee members present: Mary Phillips (co-chair), Takiyah Ali (co-chair), Dawn Ewing Morgan, Evelyn Duran-Urrea, Matthew Frye-Castillo, Kennedy Pazo, Krystal Reynoso, Gabriella Kohler (minute taker)

1. January Meeting Highlights
2. Subgroup Updates:

- Well-Being Calendar Day
- Nap Space w/Student Life
- Food Pantry w/Student Life
- Sexual Misconduct Reporting


## Next Meeting:

March 7, 2023, via Zoom from 11am to 12:30p
Zoom Meeting ID: 88572024752
Passcode: 643185

# EIAAR COMMITTEE REPORT 

Co-Chairs: Takiyah Ali and Mary Phillips

## RECAP



Knowledge Gathering


Information Sharing


Creative Strategy


Campus Collaborations

## Academic Calendar

## FOCUS <br> AREAS

## **********************************************

- Division of Enrollment Management | Registrar


## Wellbeing Day vs. Wellbeing Hour

| Spring 2023 <br> UNDERGRADUATE ACADEMIC CALENDAR <br> Advising with Administrative Offices)*** Dates subject to change-- |  |  |
| :---: | :---: | :---: |
| November 9 | Wednesday | Registration Opens for Winter 2023 |
| November 17 | Thursday | Registration Opens for Spring 2023 |
| November 30 | Wednestay | CDAD Advising 12:O0PM - 6:30PM |
| December 23-26, <br> 2022 | Friday- Monday | College closed |
| December 30, 2022 | Friday | College Closed |
| January 3 | Tuesday | CDAD Advising 12:00PM - 6:30PM |
| January 4 | Wednesday | CDAD Advising 10:00AM - 4:00PM |
| January 10 | Tuesday | CDAD Advising 12:00PM - 6:30PM |
| January ${ }^{11}$ | Wednesday | CDAD Advising 10:00AM - 4:00PM |
| January ${ }^{12}$ | Thursday | Cancellation for Non-Payment for enrollment through December 16th |
| January 15 | Sunday | - Deadline to upload proof of covid- 19 vaccination documents to cUNYfirst |
| January 16 | Monday | - Martin Luther King Jr. Day |
| January 17 | Tuesday | CDAD Advising 12:00PM - 6:30PM |
| January 18 | Wednesday | - CDAD Advising 10:00AM - 4:00PM |
| January 20 | Friday | - Cancellation deadline for Iow enrolled courses |

## Food Insecurity

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## FOCUS AREAS

- Division of Student Affairs | Student Life
- Division of Institutional Advancement | Advancement Initiatives


## Panera Bread Day-End Dough-Nation



## Campus Climate Survey

## FOCUS AREAS

***********************************************

- Office of the President | Compliance and Diversity
- Division of Student Affairs | Compliance and Operations
- Student Government Association


## QR Code Addition Bringing Awareness to Reporting System



# THANK YOU 

## Takiyah Ali and Mary Phillips (co-chairs)

Next Meeting Date:
Tuesday | March 7, 2023 @ 11:00am

## 2019 COACHE Faculty Job Satisfaction Survey

## Findings \& Actions

## Key Opportunity Areas

55\% response rate

- Mentoring
- Facilities \& Work Resources
- Tenure Expectations \& Policies
- Campus Climate


## Satisfaction with mentoring

Lehman ranks in the bottom third cohort of all CUNY institutions.


Fall 2022 Launch of Mid-Career Faculty Support Program.

## Satisfaction with facilities

Lehman ranks in the middle of the cohort.


Campus ventilation system, HyFlex classroom technology, Technology \& Wifi infostructure upgrades.

## Satisfaction with tenure expectations \& policies

9
Lehman ranks in the bottom third cohort.

Spring 2022 Ad Hoc Committee:
Best Practices for Tenure, CCE \& Promotion.
Guidebook 'Best Practices for Tenure, CCE and Promotion in Development.'


Survey only addressed job satisfaction among full-time faculty.

Spring 2022 Climate Survey
includes all Lehman Staff including
Adjunct Faculty.

## Two of the best aspects of working at Lehman

Interdisciplinary Work \& Senior Leadership

Lehman ranks in the top third cohort.


[^0]:    5. Date of departmental approval: September 6, 2022; reapproved on January 17, 2023
