**FACULTY SENATE**

**MAY 19, 2022**

**SECTION AIII. DEGREE CHANGES**

AIII.1 DEPARTMENT OF COMPUTER SCIENCE: COMPUTER SCIENCE MS

AIII.2 SCHOOL OF BUSINESS: CERTIFICATE IN BUSINESS ANALYTICS OF LARGE-SCALE DATA (GRADUATE)

AIII.3 SCHOOL OF BUSINESS: BUSINESS MANAGEMENT MS: LARGE-SCALE DATA ANALYSIS TRACK

AIII.4 DEPARTMENT OF MATHEMATICS AND DEPARTMENT OF COMPUTER SCIENCE

AIII.5 DEPARTMENT OF CHEMISTRY: BA IN CHEMISTRY (NEW DEGREE BASED ON EXISTING BS DEGREE)

AIII.6 PROGRAM IN BIOCHEMISTRY: BA IN BIOCHEMISTRY (NEW DEGRE EBASED ON EXISTING BS IN BIOCHEMISTRY)

**SECTION AIV. NEW COURSES**

AIV.1 SCHOOL OF BUSINESS: 766 STATISTICAL COMPUTING

AIV.2 SCHOOL OF BUSINESS: BDA 767 APPLIED REGRESSION ANALYSIS

AIV.3 SCHOOL OF BUSINESS : BDA 769 TIME SERIES ANALYSIS

AIV.4 DEPARTMENT OF MATHEMATICS: MTH 372 PRACTICAL MACHINE LEARNING

AIV.5 DEPARTMENT OF CHEMISTRY AND PROGRAM IN BIOCHEMISTRY: CHM 320 FUNDAMENTAL PHYSICAL CHEMISTRY

**SECTION AV. CHANGE IN EXISTING COURSES**

AV.1 DEPARTMENT OF PERFORMING AND CREATIVE ARTS: PHO 315 VISITING ARTIST WORKSHOP

AV.2 DEPARTMENT OF BIOLOGY: BIO/MLS 325 DIAGNOSTIC MOLECULAR BIOLOGY

AV.3 DEPARTMENT OF CHEMISTRY: CHM 442 Spectroscopy: Theory and Applications

AV.4 DEPARTMENT OF CHEMISTRY: CHM 452 Polymer Chemistry

AV.5 DEPARTMENT OF CHEMISTRY: CHM 360 INORGANIC CHEMISTRY

AV.6 DEPARTMENT OF MANAGEMENT: MGT 430 APPLIED SPORTS MANAGEMENT

**SECTION AVI: WITHDRAWN COURSES**

N/A

**SECTION AVII: AFFILIATION AGREEMENTS**

N/A

**COLLEGE OF STATEN ISLAND**

**SEPTEMBER 2022 ACADEMIC UNIVERSITY REPORT**

**SECTION AI: SPECIAL ACTIONS**

**N/A**

**SECTION AII: GENERAL DEGREE CHANGES**

**N/A**

**SECTION AIII. DEGREE CHANGES**

**AIII.1 DEPARTMENT OF COMPUTER SCIENCE: COMPUTER SCIENCE MS**

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| DEGREE: COMPUTER SCIENCE MS | DEGREE: NO CHANGE |
| TOTAL CREDITS: 30 CREDITS | TOTAL CREDITS: NO CHANGE |
| FROM:  A program of 10 courses (30 credits) with at least a 3.0 (B) average.  The following core courses are required for all students:  CSC 716 Advanced Operating Systems  CSC 727 Algorithms and Information Structures  CSC 740 Computer Systems Design -or- CSC 770 Parallel Computing  The remaining ~~seven~~ courses will be chosen from any of courses listed in the graduate catalog except CSC 602, CSC 702, CSC 702, and CSC 704. | A program of 10 courses (30 credits) with at least a 3.0 (B) average.  The following core courses are required for all students:  CSC 716 Advanced Operating Systems  CSC 727 Algorithms and Information Structures  CSC 740 Computer Systems Design -or- CSC 770 Parallel Computing  CSC 759 Graduate Research Laboratory -or- CSC 799 Thesis Research  The remaining six courses will be chosen from any of courses listed in the graduate catalog except CSC 602, CSC 702, CSC 702, and CSC 704. |
| EFFECTIVE: FALL 2022 (IMMEDIATELY) | |
| RATIONALE: MS program is clarifying the capstone requirement.  *(8) Master's degree programs shall normally require a minimum of one academic year of full-time graduate level study, or its equivalent in part-time study, with an accumulation of not less than 30 semester hours. Research or a comparable occupational or professional experience shall be a component of each master's degree program. The requirements for a master's degree shall normally include at least one of the following: passing a comprehensive test, writing a thesis based on independent research or completing an appropriate special project.* | |
| SUBMISSION TO COMMITTEE CHAIR: 4/11/22 | |
| APPROVAL: Computer Science Department on 4/7/22, GSC 5/9/22 | |
| CONSULTATION: N/A | |

**AIII.2 SCHOOL OF BUSINESS: CERTIFICATE IN BUSINESS ANALYTICS OF LARGE-SCALE DATA (GRADUATE)**

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| DEGREE: Business Analytics of Large-Scale Data Certificate | DEGREE: NO CHANGE |
| TOTAL CREDITS: 15 | TOTAL CREDITS: NO CHANGE |
| FROM:  BDA 761 Big Data Management of Supercomputing Environment 3  BDA 762 Analysis Techniques of Large-Scale Data-Spatial Statistical Techniques 3  BDA 763 Forecasting for Managers and Researchers 3  BDA 764 Research Project in Large-Scale Data  ~~AND~~  BDA 765 Seminar in Big Data – Current Topics 3  ~~OR~~  ~~CSC 735 Machine Learning and Data Mining 3~~ | TO:  BDA 651 Computation and Statistical Methods for Business and Economics 3  BDA 761 Big Data Management of Supercomputing Environment 3  OR  CSC 715 Database Theory 3  Three of the following:  BDA 762 Analysis Techniques of Large-Scale Data-Spatial Statistical Techniques 3  BDA 763 Forecasting for Managers and Researchers 3  BDA 764 Research Project in Large-Scale Data 3  BDA 765 Seminar in Big Data – Current Topics 3  BDA 766 Statistical Computing 3  BDA 767 Applied Regression Analysis 3  BDA 769 Time Series Analysis 3 |
| EFFECTIVE: FALL 2023 | |
| RATIONALE: Change reflects the new course offerings. | |
| SUBMISSION TO COMMITTEE CHAIR: 3/3/22 | |
| APPROVAL: School of Business 3/3/22, GSC 5/9/22 | |
| CONSULTATION: Computer Science 3/22 | |

**AIII.3 SCHOOL OF BUSINESS: BUSINESS MANAGEMENT MS: LARGE-SCALE DATA ANALYSIS TRACK**

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| DEGREE: Business Analytics of Large-Scale Data Certificate | DEGREE: NO CHANGE |
| TOTAL CREDITS: 15 | TOTAL CREDITS: NO CHANGE |
| FROM:  Degree Requirements: 30 credits Large-Scale Data Analysis Track  Core courses:  MGT 600 The Administrative Process  MGT 605 Business, Government, and Society  MKT 600 Strategic Marketing Management  ~~BDA 763 Forecasting and managers and Researchers~~  Advanced courses:  BDA 761 Big Data management in Supercomputing Environment 3  ~~BDA 764 Research Project in Large-Scale Data~~  MGT 720 Global Business Strategy 3  MGT 770 Managerial Decision Making and Applications 3  Business Data Analytics Courses:  BDA 762 Analysis Techniques for Large-Scale Data-Spatial Statistical Techniques 3  BDA 765 Seminar in Big Data - Current Topics 3 | TO:  Degree Requirements: 30 credits  Large-Scale Data Analysis Track  Core Courses:  MGT 600 The Administrative Process  MGT 605 Business, Government, and Society  MKT 600 Strategic Marketing Management  BDA 651 Computational and Statistical Methods of Business  Advanced Courses:  BDA 761 Big Data Management in Supercomputing Environment 3  MGT 720 Global Business Strategy 3  MGT 770 Managerial Decision Making and Applications 3  Business Data Analytics Courses:  Three courses chosen from the following:  BDA 762 Analysis Techniques for Large-Scale Data-Spatial Statistical Techniques 3  BDA 763 Forecasting for Managers and Researchers 3  BDA 764 Research Project in Large Scale Data 3  BDA 765 Seminar in Big Data - Current Topics 3  BDA 766 Statistical Computing 3  BDA 767 Applied Regression Analysis 3  BDA 769 Time Series Analysis 3 |
| EFFECTIVE: FALL 2023 | |
| RATIONALE: Change reflects the new course offerings. | |
| SUBMISSION TO COMMITTEE CHAIR: 3/3/22 | |
| APPROVAL: School of Business 3/3/22, GSC 5/9/22 | |
| CONSULTATION: Computer Science 3/22 | |

**AIII.4 DEPARTMENT OF MATHEMATICS AND DEPARTMENT OF COMPUTER SCIENCE**

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| Department/Program: MATHEMATICS AND COMPUTER SCIENCE |
| TITLE OF DEGREE/MAJOR/MINOR/CERTIFICATE: Minor in Data Science |
| REQUIREMENTS:  CSC 245 Introduction to Data Science (CSC 126 OR CSC 140/141 OR CSC 270) 3  MTH 311 Probability Theory (MTH 233) 4  One of the following:  CSC 412 Machine Learning and Knowledge Acquisition 4  MTH 372 Practical Machine Learning 4  One of the following:  CSC 315 Introduction to Database Systems 4  CSC 412 Machine Learning and Knowledge Acquisition 4  OR  MTH 372 Practical Machine Learning 4  CSC 480 Artificial Intelligence 4  MTH 410 Mathematical Statistics I 4  Independent Study (Data Science Capstone Project) 4  These courses imply prerequisites of (CSC 126 or CSC 140/CSC 141 or CSC 270), CSC 211, CSC 326, MTH 231, MTH 232, MTH 233 |
| TOTAL CREDITS REQUIRED: 20 |
| EFFECTIVE: Fall 2022 |
| RATIONALE: The departments of Mathematics and Computer Science recognize the large and present need for Data Science among our students, both in terms of learning the field itself, and in terms of preparing well for graduate level studies in Data Science (such as offered, for instance, at the CUNY Graduate Center). Furthermore, the Departments recognize that the current course offerings can be leveraged to compose a line of study with a focus on Data Science that would produce such preparations and skill developments. Therefore, in order to make systematic access to Data Science more widely available, we wish to propose a Minor in Data Science, to be made available to students of all majors as long as they fulfill the stated (and implied) requirements. |
| SUBMISSION TO COMMITTEE CHAIR: M4/21/2022 sent to Committee Chair and Curriculum Office |
| APPROVAL: CSC (Shuqun Zhang) October 2019; MTH (Carlo Lancellotti) November 2021, UCC 5/6/22  Include Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s) |
| CONSULTATION: Business (Finance: George Wang, Hyoung Suk Shim, Deborah Brickman; Marketing: Thomas Tellefsen; Economics: Simone Wegge, John Osakue), Psychology (Dan McCloskey, Jennifer Wagner, Valkiria Duran), Physics (CharlesLiu, Li Ge), Chemistry (Qiao-Sheng Hu, Rupal Gupta), Biology (Chang-Hui Shen, Shaibal Mitra), Engineering (Neo Antoniades, Chang Min Kim), Dean of Business (Susan Holak), Dean of Science (Michael Cavagnero)  Include Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s). |

**AIII.5 DEPARTMENT OF CHEMISTRY: BA IN CHEMISTRY AND BA IN MHC CHEMISTRY**

**(NEW DEGREE BASED ON EXISTING BS DEGREE)**

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| Note: This program is requesting a waiver to specify particular courses students must take in the areas of the Common Core and Scientific World) and College Option. If students take different courses in these areas, they will be certified as having completed the Common Core and the College Option area, but it may not be possible for them to finish their degree program within the regular number of credits.  Pathways General Education Requirements: 42-45\* Credits  Pathways Required Core: 12-15 credits  ENG 111 Introduction to College Writing (EC) 3 credits  ENG 151 College Writing (EC) 3 credits  MTH 123 College Algebra and Trigonometry (MQ) 4 credits  OR  MTH 125 College Algebra and Trigonometry with Integrated Algebra Review (MQ) 4 credits  OR  MTH 130 Precalculus (MQ) 3 credits  OR  \*MTH 230 Calculus I with Pre-Calculus (MQ) 6 credits  OR  MTH 231 Analytic Geometry and Calculus I (MQ) 3 credits  CHM 141 General Chemistry I (LP) 3 credits  Flexible Core: 18 credits  World Cultures and Global Issues Course (WG) 3 credits  US Experience in its Diversity Course (US) 3 credits  Individual & Society Course (IS) 3 credits  Creative Expression Course (CE) 3 credits  CHM 142 General Chemistry II (SW) 3 credits  College Option: 12-14 credits  Social Science 3-4 credits  TALA 3-4 credits  CHM 121 General Chemistry I Laboratory 1 credit  CHM 127 General Chemistry II Laboratory 1 credit  114-Level Language 3-4 credits  Major Requirements: 58-72\*\*  One year of HS Chemistry  OR  \*\*CHM 100 Introduction to Chemistry I 3 credits  \*\*CHM 101 Introduction to Chemistry I Laboratory 1 credits  CHM 141 General Chemistry I 3 credits  CHM 121 General Chemistry I Laboratory 1 credit  CHM 142 General Chemistry II 3 credits  CHM 127 General Chemistry II Laboratory 1 credit  CHM 240 Analytical Chemistry 4 credits  CHM 250 Organic Chemistry I 5 credits  CHM 256 Organic Chemistry II 5 credits  CHM 320 Fundamental Physical Chemistry 4 credits  CHM 337 Experimental Physical Chemistry 4 credits  CHM 360 Inorganic Chemistry 4 credits  PHY 116 Physics I 4 credits  AND  PHY 156 Physics II 4 credits  OR  MTH 232 Calculus II 3 credits  AND  PHY 120 General Physics I 3 credits  AND  PHY 121 General Physics I Laboratory 1 credit  AND  PHY 160 General Physics II 3 credits  AND  PHY 161 General Physics II Laboratory 1 credit  Math Requirement 4-14\*\* credits  MTH 229 Calculus Computer Laboratory 1 credit  MTH 230 Calculus I and Pre-Calculus 6 credits (Pre: B in MTH 123 or 125. Not open to students who completed MTH 130)  OR  MTH 229 Calculus Computer Laboratory 1 credit  MTH 231 Analytic Geometry and Calculus I 3 credits (Pre: A in MTH 123, A in MTH 125, or MTH 130)  \*\*Depending on MTH Milestone, students may also need to complete one or more of the following (3-7 credits)  MTH 130 Pre-Calculus 3 credits  MTH 123 College Algebra and Trigonometry 4 credits  OR  MTH 125 College Algebra and Trigonometry 4 credits  Chemistry Electives: 12 credits (three courses chosen from following)  CHM 340 Instrumental Methods of Chemical Analysis 4 credits  CHM 350 Advanced Organic Chemistry 4 credits  CHM 375 Modeling in Chemistry and Biochemistry 4 credits  CHM 442 Spectroscopy 4 credits  CHM 452 Polymer Chemistry 4 credits  CHM 370 Biochemistry I 4 credits  CHM 376 Biochemistry II 4 credits  CHM 594 Independent Study for Honors Research 4 credits  Honors:  A student is eligible for admission to the honors program in Chemistry if he or she enters the senior year with a grade point average of 3.5 of higher.  To receive Honors in Chemistry, a student is required to pass at least eight credits of Independent Study, with a grade of A- or higher, completed during their last three semesters prior to graduation.  The topic of the Independent Study must be directed towards their Honors Thesis topic.  The student must also satisfy the following requirements detailed in the schedule below:   * Sept 15th of their penultimate semester: Students submits a one-page summary of their proposed research project to the Chemistry Department Chairperson who will appoint a three-member Honors Committee to evaluate the proposal. * October 15th of their penultimate semester:  The Honors Committee will grant or deny the students’ proposed research project. * November 1st of the penultimate semester: The student will meet with the Honors Committee to present their research proposal.  Suggestions from the committee will be used to help guide the research. * January 15th before their final semester:  The student will submit a five-page progress report to the Honors Committee. * February 1st of their final semester:  The Honors Committee will approve or deny continuation of the student’s honors project. * May 1st of their final semester: The student will submit an honors thesis to his/her Honors Committee that is written in the style of a major journal article. * May 10th, prior to end of final exam period of their final semester:  the student will present an oral defense of the thesis to the Honors Committee.   Based on the written honors thesis and oral defense, the Honors Committee will approve or deny the Honors in Chemistry designation.  The deadlines dates noted above are based on a June graduation date, but corresponding guidelines may be designated for January graduation and approved by their faculty supervisor and the Chemistry department chairperson. |
| EFFECTIVE: FALL 2022 |
| SUBMISSION TO COMMITTEE CHAIR: 4/21/22 |
| RATIONALE: The proposed BA degree has a reduced number of major required credits, which will serve students pursuing health profession careers or double-major with other disciplines including STEM such as Biology or Psychology that may benefit from a synergistic curriculum. This program will serve as a training program for students who seek to work in chemical industries. Furthermore, our program is carefully designed such that students can easily transition from the BA to the BS program. This major is intended to train students to join industrial workforce and/or pursue graduate education such as Masters or PhD programs. This program may also be an excellent choice for prospective science teachers who are training the next generation of scientists and doctors. Additionally, they will be better prepared to excel in competitive exams such at the MCAT and DAT. The new Physical Chemistry course custom designed for this BA includes knowledge that will be practical and useful to all STEM majors and to anyone working in the chemical and pharmaceutical fields. This program is expected to run in conjunction with similar BA and BS degrees in Biochemistry. Therefore, this program has the potential to provide a broader education and additional career paths for students interested in pursuing education in Chemistry. |
| APPROVAL: Chemistry Department 11/9/2021, UCC 5/6/22, GEC 5/9/22 |
| CONSULATION: Department of Mathematics 04/14/2022 |

**AIII.6 PROGRAM IN BIOCHEMISTRY: BA IN BIOCHEMISTRY AND BA IN MHC BIOCHEMISTRY**

**(NEW DEGRE EBASED ON EXISTING BS IN BIOCHEMISTRY)**

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| Note: This program is requesting a waiver to specify particular courses students must take in the areas of the Common Core and Scientific World) and College Option. If students take different courses in these areas, they will be certified as having completed the Common Core and the College Option area, but it may not be possible for them to finish their degree program within the regular number of credits.  **Pathways General Education Requirements: 42-45\* Credits**  **Pathways Required Core: 12-15 credits**  ENG 111 Introduction to College Writing (EC) 3 credits  ENG 151 College Writing (EC) 3 credits  MTH 123 College Algebra and Trigonometry (MQ) 4 credits  OR  MTH 125 College Algebra and Trigonometry with Integrated Algebra Review (MQ) 4 credits  OR  MTH 130 Precalculus (MQ) 3 credits  OR  \*MTH 230 Calculus I with Pre-Calculus (MQ) 6 credits  OR  MTH 231 Analytic Geometry and Calculus I (MQ) 3 credits  CHM 141 General Chemistry I (LP) 3 credits  OR  BIO 170 General Biology I (LP) 3 credits  **Flexible Core: 18 credits**  World Cultures and Global Issues Course (WG) 3 credits  US Experience in its Diversity Course (US) 3 credits  Individual & Society Course (IS) 3 credits  Creative Expression Course (CE) 3 credits  CHM 142 General Chemistry II (SW) 3 credits  BIO 180 General Biology II (SW) 3 credits  **College Option: 12-14 credits**  Social Science 3-4 credits  TALA 3-4 credits  CHM 121 General Chemistry I Laboratory 1 credit  CHM 127 General Chemistry II Laboratory 1 credit  BIO 171 General Biology I Laboratory 1 credit  BIO 181 General Biology II Laboratory 1 credit  114-level language 3-4 credits  **Major Requirements: 70-84\*\***  One year of HS Chemistry  OR  \*\*CHM 100 Introduction to Chemistry I 3 credits  \*\*CHM 101 Introduction to Chemistry I Laboratory 1 credits  CHM 141 General Chemistry I 3 credits  CHM 121 General Chemistry I Laboratory 1 credit  CHM 142 General Chemistry II 3 credits  CHM 127 General Chemistry II Laboratory 1 credit  CHM 240 Analytical Chemistry 4 credits  CHM 250 Organic Chemistry I 5 credits  CHM 256 Organic Chemistry II 5 credits  CHM 320 Fundamental Physical Chemistry 4 credits  BIO/CHM 370 Biochemistry I, 4 credits  BIO/CHM 376 Biochemistry II, 4 credits  OR  CHM 377 Experimental Biochemistry, 4 credits  BIO 170 General Biology I, 3 credits  BIO 171 General Biology I Laboratory, 1 credit  BIO 180 General Biology II, 3 credits  BIO 181 General Biology II Laboratory, 1 credit  BIO 237 Cell Biology, 4 credits  **Physics Sequence: 8-11 credits**  PHY 116 Physics I 4 credits  PHY 156 Physics II 4 credits  OR  PHY 120 General Physics I 3 credits  PHY 121 General Physics I Laboratory 1 credit  MTH 232 Calculus II 3 credits  PHY 160 General Physics II 3 credits  PHY 161 General Physics II Laboratory 1 credit  **Math Requirements 4-14\*\* credits**  MTH 229 Calculus Computer Laboratory 1 credit  MTH 230 Calculus I and Pre-Calculus 6 credits (Pre: B in MTH 123 or 125. Not open to students who completed MTH 130)  OR  MTH 229 Calculus Computer Laboratory 1 credit  MTH 231 Analytic Geometry and Calculus I 3 credits (Pre: A in MTH 123, A in MTH 125, or MTH 130)  \*\*Depending on MTH Milestone, students may also need to complete one or more of the following (3-7 credits)  MTH 130 Pre-Calculus 3 credits  MTH 123 College Algebra and Trigonometry 4 credits  OR  MTH 125 College Algebra and Trigonometry 4 credits  **Biochemistry Electives: 12 credits, which have to include at least one BIO and one CHM course**  BIO 233 Genetics, 4 credits  BIO 205 Physiology, 4 credits  BIO 314 Microbiology, 4 credits  BIO 325 Diagnostic Molecular Biology, 4 credits  BIO 326 Introduction to Bioinformatics and Genomics, 4 credits  BIO 327 Molecular Biology, 4 credits  BIO 335 Gene Regulatory Systems, 4 credits  BIO 454 Advanced Methods in Cell Biology, 4 credits  CHM 340 Instrumental Methods of Chemical Analysis, 4 credits  CHM 350 Advanced Organic Chemistry, 4 credits  CHM 360 Inorganic Chemistry, 4 credits  CHM 375 Modeling in Chemistry and Biochemistry, 4 credits  CHM 376 or CHM 377 if not taken to satisfy a major requirement, 4 credits  BIO/CHM 594 Independent Study for Honors Research, 4 credits  Other 300- or 400-level Biology or Chemistry courses may be substituted with permission of the Program Director.  Honors:  A student is eligible for admission to the honors program in Biochemistry if he or she enters the senior year with a grade point average of 3.5 or higher.  To receive Honors in Biochemistry, a student is required to pass at least eight credits of Independent Study, with a grade of A- or higher, completed during their last three semesters prior to graduation.  The topic of the Independent Study must be directed towards their Honors Thesis topic.  The student must also satisfy the following requirements detailed in the schedule below:   * Sept 15th of their penultimate semester: Students submits a one-page summary of their proposed research project to the Biochemistry Program Director who will appoint a three-member Honors Committee to evaluate the proposal. * October 15th of their penultimate semester:  The Honors Committee will grant or deny the students’ proposed research project. * November 1st of the penultimate semester: The student will meet with the Honors Committee to present their research proposal.  Suggestions from the committee will be used to help guide the research. * January 15th before their final semester:  The student will submit a five-page progress report to the Honors Committee. * February 1st of their final semester:  The Honors Committee will approve or deny continuation of the student’s honors project. * May 1st of their final semester: The student will submit an honors thesis to his/her Honors Committee that is written in the style of a major journal article. * May 10th, prior to end of final exam period of their final semester:  the student will present an oral defense of the thesis to the Honors Committee.   Based on the written honors thesis and oral defense, the Honors Committee will approve or deny the Honors in Biochemistry designation.  The deadline dates noted above are based on a June graduation date, but corresponding guidelines may be designated for January graduation and approved by their faculty supervisor and the Biochemistry program director. |
| EFFECTIVE: FALL 2022 |
| SUBMISSION TO COMMITTEE CHAIR: 4/25/22 |
| RATIONALE: This BA degree, with a reduced number of credits when compared to the BS degree, will serve students who would like to double-major with another discipline inside or outside the Division of Science. Such a dual majoring student with for example Biology or Psychology would greatly benefit from synergistic training in chemistry (in particular general, analytical, and physical chemistry as well as Experimental Biochemistry). The double majors will represent a new generation of students who will have the necessary training that the Biotech industry seeks. Furthermore, they will be better prepared to excel in competitive exams such at the MCAT and DAT. There is considerable enthusiasm among students for the proposed BA – a survey was conducted among Organic Chemistry 1 and 2 students this semester and 45 students said they would sign up for the proposed BA and choose to double major- that is a BS in Biology and the BA in Biochemistry described in this document. Star alumni students who are currently in medical school have been consulted and they said that they would have loved to double major with the BA in Biochemistry proposed herein. The new Physical chemistry course custom designed for this BA includes knowledge that will be practical and useful to all STEM majors and to anyone working in the Biotech industry in particular and in the area of Health sciences in general. The BA in Biochemistry students would take analytical chemistry which is the workhorse of the Biotech and pharmaceutical industry where methods such as High-Pressure Liquid Chromatography expertise is a must. The injection of extra practical physical chemistry and analytical chemistry the BA would provide along with the other courses that constitute this BA will prepare science majors better for the MCAT/DAT etc. and to join the Biotech industry. This BA will be a Win-win situation for the Biology, Psychology and the Chemistry departments and much more importantly to our students to succeed once they graduate. As an interdisciplinary program, the BA in biochemistry will be managed by a steering committee of 10 faculty, 5 of whom will be elected from the Biology and Chemistry Departments, respectively, and one of whom shall serve as the Program Director. |
| APPROVAL: Approved by Chemistry Department meeting on 11/9/2021. Approved by Biology Department meeting on 3/17/2022. Approved by the Biochemistry Steering Committee on 3/24/2022, UCC 5/6/22, GEC 5/9/22 |
| CONSULTATION: Dean of Science and Technology Dr. Michael Cavagnero has been consulted and we kindly thank him for his enthusiastic support of the proposed BA Degree. Dr. Raja has had several detailed discussions with the Chair of the Chemistry department at Lehman college Prof. Andrei Jitianu on the details of the thriving BA program in Biochemistry and Chemistry that they have on his campus. Professor Bhanu Chauhan, Chair of Chemistry at William Patterson university has been consulted regarding the logistics of the BA in Biochemistry program at his campus. Professor Brian Gibney from Brooklyn college is also acknowledged here for his input. CSI Biology Department faculty were consulted on November 24, 2021. The CSI Mathematics Department was consulted on 4/14/2022. |

**SECTION AIV. NEW COURSES**

**AIV.1 SCHOOL OF BUSINESS: 766 STATISTICAL COMPUTING**

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| DEPARTMENT/PROGRAM: SCHOOL OF BUSINESS |
| CAREER LEVEL (UNDERGRADUATE OR GRADUATE): GRADUATE |
| ACADEMIC LEVEL (REGULAR OR REMEDIAL): REGULAR |
| SUBJECT AREA (I.E. ART, BIOLOGY): BUSINESS DATA ANALYTICS |
| PROPOSED COURSE NUMBER/LEVEL: BDA 766 |
| COURSE TITLE: STATISTICAL COMPUTING |
| PREREQUISITE: Expected prior knowledge as stated for the program or BDA 651 |
| COREQUISITE: N/A |
| PRE OR COREQUISITE: N/A |
| CREDITS: 3 |
| HOURS: 3 |
| CATALOG DESCRIPTION: This course aims to provide fundamental knowledge of Statistical Computing to perform statistical analyses with large-scale data. In this course, students will learn basic theory of statistical inference, and computations of statistical estimators and test statistics. Throughout this course, students will practice various statistical programming languages and applications such as R, SAS, Stata, and etc. While having practices with the programs, students will be able to experience and examine strength/weakness of each programming languages and applications for a particular task in statistical computing. |
| LIBERAL ARTS AND SCIENCES (YES OR NO): NO |
| GENERAL EDUCATION: NO  If a course is being considered to satisfy general education requirements, the proposal will need the approval of both the UCC and the GEC before moving on to FS. |
| EFFECTIVE: FALL 2023 |
| ROLE IN CURRICULUM: MS in Management Large-Scale Data Analysis Track |
| RATIONALE: Businesses suffer from a data deluge with the tremendous amounts of data generated by the advances in computer technologies. In order for businesses to implement data-driven, sound decision making, there is a need for efficient data management and data mining to extract information and gain insights (e.g. patterns, trends, correlations, etc.) for many domains.  To handle a variety of data sets at the large scale introduced by the Web, Social Networks and surveillance systems, companies have realized that the traditional assumptions and popular relational database approaches are not working any more. They are moving towards the emerging areas of "Big Data analytics” and “Big Data management.”  The knowledge and skill set in Big Data management and analytics are in great demand and will enhance the career potential of experts in the emerging data intensive business world.  Offered every Fall semester. Expected enrollment 15. |
| SUBMISSION TO COMMITTEE CHAIR: 3/3/22 sent to Committee Chair and Curriculum Office |
| APPROVAL: School of Business 3/4/22, 5/9/22 |
| CONSULTATION: N/A  Include (Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s) |

**AIV.2 SCHOOL OF BUSINESS: BDA 767 APPLIED REGRESSION ANALYSIS**

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| DEPARTMENT/PROGRAM: SCHOOL OF BUSINESS |
| CAREER LEVEL (UNDERGRADUATE OR GRADUATE): GRADUATE |
| ACADEMIC LEVEL (REGULAR OR REMEDIAL): REGULAR |
| SUBJECT AREA (I.E. ART, BIOLOGY): BUSINESS DATA ANALYTICS |
| PROPOSED COURSE NUMBER/LEVEL: BDA 767 |
| COURSE TITLE: Applied Regression Analysis |
| PREREQUISITE: Expected prior knowledge as stated for the program or BDA 651 |
| COREQUISITE: N/A |
| PRE OR COREQUISITE: N/A |
| CREDITS: 3 |
| HOURS: 3 |
| CATALOG DESCRIPTION: This course aims to learn and practice Regression Analysis, one of the most frequently used statistical analysis methods for scientific research and business analytics. Regression analysis is a statistical analysis that draws an inference about causal relationship (or functional relationship) between variables of interest using data. Throughout the course, we will study theoretical aspects of regression analysis, and discuss about appropriate ways of using regression analysis. Further, we will practice how to per- form regression analysis using data and statistical programming languages and applications such as R, SAS, Stata, and etc. |
| LIBERAL ARTS AND SCIENCES (YES OR NO): NO |
| GENERAL EDUCATION: NO  If a course is being considered to satisfy general education requirements, the proposal will need the approval of both the UCC and the GEC before moving on to FS. |
| EFFECTIVE: FALL 2023 |
| ROLE IN CURRICULUM: MS in Management Large-Scale Data Analysis Track |
| RATIONALE: The regression model is one of the most widely-used statistical tools in real-world data analyses. Our program needs a class exploring basic theories for the linear regression models - such as simple regression models, multiple regression models, model diagnostics, and variable selections. The basic purpose of the course and this text is to develop an understanding of least square and related statistical methods without becoming excessively mathematical. The emphasis is on regression concepts, rather than on mathematical proofs. Proofs are given only to develop facility with matrix algebra and comprehension of mathematical relationships. Least Squares estimation is a powerful research tool. Few assumptions are required and the estimators obtained have several desirable properties. Inference from research data to the true behavior of a process, however, can be difficult and dangerous step due to unrecognized inadequacies in the data, misspecification of the model or inappropriate inferences of causality. As with any research tool it is important that the least square method be thoroughly understood in order to eliminate as much misuse or misinterpretation of the results as possible. Offered every Fall semester. Expected enrollment 15. |
| SUBMISSION TO COMMITTEE CHAIR: 3/3/22 sent to Committee Chair and Curriculum Office |
| APPROVAL: School of Business 3/4/22, GSC 5/9/22 |
| CONSULTATION: N/A  Include (Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s) |

**AIV.3 SCHOOL OF BUSINESS : BDA 769 TIME SERIES ANALYSIS**

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| DEPARTMENT/PROGRAM: SCHOOL OF BUSINESS |
| CAREER LEVEL (UNDERGRADUATE OR GRADUATE): GRADUATE |
| ACADEMIC LEVEL (REGULAR OR REMEDIAL): REGULAR |
| SUBJECT AREA (I.E. ART, BIOLOGY): BUSINESS DATA ANALYTICS |
| PROPOSED COURSE NUMBER/LEVEL: BDA 769 |
| COURSE TITLE: Time Series Analysis |
| PREREQUISITE: Expected prior knowledge as stated for the program or BDA 651 |
| COREQUISITE: N/A |
| PRE OR COREQUISITE: N/A |
| CREDITS: 3 |
| HOURS: 3 |
| CATALOG DESCRIPTION: In this course, we will learn and discuss about Time Series Analysis, a collection of statistical analysis methods for time series data in which a statistical data captures an object’s dynamic behavior. The classical definition of a statistical data is an i.e. random sample that is a collection of observations for many different objects that share the same probabilistic behavior (identically distributed) but do not have any relationship with each other (independent), and we can apply theories of statistical inference based on the classical probability theory. However, time series data is defined as which a statistical data collected its observations from a single object repeatedly over time. The classical probability theory that allows us to apply the conventional statistical analysis cannot be applied for this type of data because it is not i.i.d random sample by nature. Throughout this course, students will learn basic theories of Stochastic Process, a probability theory that applies for random variables defined on time, various time series analysis techniques based on stochastic process theories, and practice how to apply them for practical time series data in computer programming languages and software. |
| LIBERAL ARTS AND SCIENCES (YES OR NO): NO |
| GENERAL EDUCATION: NO  If a course is being considered to satisfy general education requirements, the proposal will need the approval of both the UCC and the GEC before moving on to FS. |
| EFFECTIVE: FALL 2023 |
| ROLE IN CURRICULUM: MS in Management Large-Scale Data Analysis Track |
| RATIONALE: Time Series Data Analysis provide fundamental skills and k11owlledge of financial data analysis and forecasting.  Time series data is defined as which a statistical data collected its observations from a single object repeatedly over time. The, classical probability theory that allows us to apply the conventional statistical analysis cannot be applied for this type of data because ·it is not a random sample by nature. The goals of this course are to develop an appreciation for the richness and versatility of modern time series. analysis as a tool for analyzing data, and still maintain a commitment to theoretical integrity.  This course is designed to be useful as a text for courses in time series on several different levels and as a reference work for practitioners facing the analysis of time-correlated data in the physical, biological, and social science. This class deals with data collected at equally spaced points in time. The discussion begins with a single observation at each point. The goal of univariate time series analysis is to forecast values of a single historical series. For multivariate time series analysis can be to model the relationships among component series as well as to forecast those components. When the ordering of the data in time, is important to their information content, summarization or analysis using time-series methods is appropriate. Offered every Fall semester. Expected enrollment 15. |
| SUBMISSION TO COMMITTEE CHAIR: 3/3/22 sent to Committee Chair and Curriculum Office |
| APPROVAL: School of Business 3/4/22, GSC 5/9/22 |
| CONSULTATION: N/A  Include (Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s) |

**AIV.4 DEPARTMENT OF MATHEMATICS: MTH 372 PRACTICAL MACHINE LEARNING**

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| DEPARTMENT/PROGRAM: MATHEMATICS |
| CAREER LEVEL (UNDERGRADUATE OR GRADUATE): UNDERGRADUATE |
| ACADEMIC LEVEL (REGULAR OR REMEDIAL): REGULAR |
| SUBJECT AREA: MATHEMATICS |
| PROPOSED COURSE NUMBER/LEVEL: MTH 372 |
| COURSE TITLE: Practical Machine Learning |
| PREREQUISITE: MTH 233 and (MTH 214 OR CSC 126 OR ECO323/MGT 324) |
| COREQUISITE: N/A |
| PRE OR COREQUISITE: N/A |
| CREDITS: 4 |
| HOURS: 4 |
| CATALOG DESCRIPTION: Hands-on introduction to techniques of contemporary machine learning and high-performance statistical learning. Topics include basic tradeoffs and language of machine learning (bias/variance, supervised/unsupervised, online/batch, cross-validation), algorithms for machine learning (classification, regression, clustering), feature engineering and the data analysis pipeline. |
| LIBERAL ARTS AND SCIENCES: NO |
| GENERAL EDUCATION: N/A |
| EFFECTIVE: SPRING 202 |
| ROLE IN CURRICULUM: The course will serve as an elective for mathematics majors, computer science majors and mathematics/computer science majors, and is one of the components of the new data science minor. |
| RATIONALE: Machine learning and statistical learning is spreading widely throughout society and throughout the career opportunities for students in both Mathematics, Computer Science and Business Analytics. Proficiency in the current toolkits develops generalized machine learning skills and provides access to current state of the art techniques. A project-focused learning approach is particularly well suited for building practical skills with applied statistics and machine learning. Using continuous assessment over two semesters of teaching this course, the course proposal has been adapted to better reflect the needs and performances of the students in the course. Main syllabus adjustments include a tutorial offered in the first week and a lowered number of longer-term projects. (Regularization of Topics course) |
| SUBMISSION TO COMMITTEE CHAIR: 4/29/22 |
| APPROVAL: Mathematics Department 5/3/22 |
| CONSULTATION: Department of Computer Science, Accounting and Finance, Department of Economics, Program Information Systems and Informatics |
| EFFECTIVE: SPRING 2023 |

**AIV.5 DEPARTMENT OF CHEMISTRY AND PROGRAM IN BIOCHEMISTRY: CHM 320 FUNDAMENTAL PHYSICAL CHEMISTRY**

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| DEPARTMENT/PROGRAM: CHEMISTRY |
| CAREER LEVEL (UNDERGRADUATE OR GRADUATE): UNDERGRADUATE |
| ACADEMIC LEVEL (REGULAR OR REMEDIAL): REGULAR |
| SUBJECT AREA (I.E. ART, BIOLOGY): CHEMISTRY |
| PROPOSED COURSE NUMBER/LEVEL (100, 200, 300, 400, 500, 600, 700, 800: CHM 320 |
| COURSE TITLE: PHYSICAL CHEMISTRY (1-semester) |
| PREREQUISITE: CHM 142 and CHM 127; PHY 116 OR (PHY 120 AND PHY 121); (MTH 230 OR MTH 231) AND MTH 229 |
| COREQUISITE: N/A |
| PRE OR COREQUISITE: PHY 156 OR (PHY 160 AND PHY 161) |
| CREDITS: 4 |
| HOURS: 4 |
| CATALOG DESCRIPTION: An introduction to the principles of Quantum Chemistry, Chemical Thermodynamics, Chemical Kinetics, and their applications including molecular structure of fundamental organic and inorganic compounds, molecular spectroscopy, chemical equilibria, acid/base equilibria, and enzyme kinetics. |
| LIBERAL ARTS AND SCIENCES (YES OR NO): YES |
| GENERAL EDUCATION: N/A  If a course is being considered to satisfy general education requirements, the proposal will need the approval of both the UCC and the GEC before moving on to FS. |
| EFFECTIVE: FALL 2022 |
| ROLE IN CURRICULUM: Click or tap here to enter text |
| RATIONALE: This is a one-semester, calculus-based Physical Chemistry. The course condenses the two-semester regular physical chemistry courses (8 hours and 8 credits in total) into a one-semester course (4 hours and 4 credits) as required for the BA degree in both Chemistry and Biochemistry. It will cover the fundamental physics and basic mathematics applied in thermodynamics, quantum chemistry and chemical kinetics. The scientific and mathematic details given in this course are elusive in CHM141/CHM142 but are essential to understand the fundamental physicochemical principles. The course introduces physical chemistry topics by using numerous examples that share the same concept between chemistry and biochemistry. This new course is at the introductory level of physical chemistry, and is not intended to replace the regular two-semester physical chemistry courses that require full integrative knowledge in chemistry, physics and mathematics for each topic. |
| SUBMISSION TO COMMITTEE CHAIR: 4/21/2022 sent to Committee Chair and Curriculum Office |
| APPROVAL: Department of Chemistry 11/21; Biochemistry Committee, UCC 5/6/22 |
| CONSULTATION: N/A |

**SECTION AV. CHANGE IN EXISTING COURSES**

**AV.1 DEPARTMENT OF PERFORMING AND CREATIVE ARTS: PHO 315 VISITING ARTIST WORKSHOP**

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| **FROM** | **USE STRIKETHROUGH FOR ~~CHANGES~~** | **TO** | **USE UNDERLINE FOR CHANGES** |
| Department/Program | PCA | Department/Program | NO CHANGE |
| Course No. and Title | PHO 315 Visiting Artist Workshop | Course No. AND TITLE | NO CHANGE |
| Prerequisite | PHO 201 AND ~~PHO 220~~ | Prerequisite | PHO 201 and any other PHO course at the 200-level or above OR Permission of the Photography Program Coordinator |
| Corequisite | n/a | Corequisite | n/a |
| Pre or corequisite | n/a | Pre or corequisite | n/a |
| Credits | 3 | Credits | NO CHANGE |
| Hours | 4 | Hours | NO CHANGE |
| CATALOG DESCRIPTION | This course will consist of three individual workshops with fine arts photographers who will each teach a four-to five-week segment. Students will get acquainted with their work and have the opportunity to have in-depth discussions with the artists about their motivation, research, procedure, and execution processes used in creating their respective bodies of work. Students will be introduced to specific technical processes, readings, and theoretical concepts that each artist considers fundamental to his/her work process. Each workshop will conclude with a visual assignment that addresses the specific issues and techniques discussed. This course may be repeated for credit. | CATALOG DESCRIPTION | NO CHANGE |
| Liberal Arts AND SCIENCES | NO | Liberal Arts AND SCIENCES | NO CHANGE |
| GenERAL EDUCATION | N/A | GenERAL EDUCATION | No Change |
| Effective | N/A | Effective | SPRING 2023 |
| Role in Curriculum | This course is an option in the photography concentrations for both the BA and BFA in Art. | | |
| Rationale | We do not offer PHO 220 often enough to make that a pre-requisite, while we do offer PHO 201 every semester. Students are frequently blocked from registering for this course because they have not taken PHO 220, and sometimes we do not know that they tried to enroll. This new pre-requisite will encourage more enrollment in the course, and the change to a pre-requisite of any upper-level PHO class will serve a nearly identical function. | | |
| Submission to Committee Chair | 4/7/22 | | |
| APPROVAL | PCA (5/22), UCC 5/6/22 | | |
| CONSULTATION | N/A | | |

**AV.2 DEPARTMENT OF BIOLOGY: BIO/MLS 325 DIAGNOSTIC MOLECULAR BIOLOGY**

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| **FROM** | **USE STRIKETHROUGH FOR ~~CHANGES~~** | **TO** | **USE UNDERLINE FOR CHANGES** |
| Department/Program | BIOLOGY | Department/Program | NO CHANGE |
| Course No. and Title | BIO/MLS 325 Diagnostic Molecular Biology | Course No. AND TITLE | NO CHANGE |
| Prerequisite | ~~BIO 150, BIO 160~~, ~~BIO 170, BIO 171,~~ ~~BIO 314,~~ CHM 141, CHM 121 | Prerequisite | BIO180/181, CHM 141/121 |
| Corequisite | n/a | Corequisite | n/a |
| Pre or corequisite | n/a | Pre or corequisite | n/a |
| Credits | 4 | Credits | NO CHANGE |
| Hours | 3 lecture hours; 3 laboratory hours | Hours | NO CHANGE |
| CATALOG DESCRIPTION | Addressing the theoretical and practical framework for the understanding and application of molecular biology techniques in the clinical laboratory. The course material will cover the principles and applications of recombinant DNA technology including DNA-DNA hybridization, DNA amplification, and nonradioactive in situ hybridization (HISH) for the detection and identification of microorganisms associated with infectious diseases. | CATALOG DESCRIPTION | NO CHANGE |
| Liberal Arts AND SCIENCES | RLA | Liberal Arts AND SCIENCES | NO CHANGE |
| GenERAL EDUCATION | N/A | GenERAL EDUCATION | No Change |
| Effective | N/A | Effective | SPRING 2023 |
| Role in Curriculum | This course may be used to satisfy a biology major and/or elective. | | |
| Rationale |  | | |
| Submission to Committee Chair | 4/7/22 | | |
| APPROVAL | Biology Department 3/3/2022, UCC 5/6/22 | | |
| CONSULTATION | N/A | | |

**AV.3 DEPARTMENT OF CHEMISTRY: CHM 442 Spectroscopy: Theory and Applications**

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| FROM | USE STRIKETHROUGH FOR ~~CHANGES~~ | TO | USE UNDERLINE FOR CHANGES |
| Department/Program | CHM | Department/Program | No Change |
| Course No. and Title | CHM 442 Spectroscopy: Theory and Applications | Course No. AND TITLE | No Change |
| Prerequisite |  | Prerequisite | No Change |
| Corequisite | Click or tap here to enter text | Corequisite | No Change |
| Pre or corequisite | CHM 330 or CHM 336 | Pre or corequisite | CHM 330 or CHM 336 or CHM 320 |
| Credits | 4 | Credits | No Change |
| Hours | 4 Lectures | Hours | No Change |
| CATALOG DESCRIPTION | Theory and applications of molecular spectroscopy in gases and condensed phases, including rotation, vibration, electronic, and magnetic resonance techniques. Applications to structural problems in biochemistry and polymer chemistry. | CATALOG DESCRIPTION | No Change |
| Liberal Arts AND SCIENCES | NO | Liberal Arts AND SCIENCES | No Change |
| GenERAL EDUCATION | Life and Physical Sciences | GenERAL EDUCATION | No Change |
| Effective | N/A | Effective | Fall 2022 |
| Role in Curriculum | Baccalaureate level Biochemistry and Chemistry major requirement | | |
| Rationale | The proposed changes in the prerequisites of this course will allows students enrolled in the new BA Chemistry and Biochemistry degrees to take this course towards their major requirement. Currently, CHM330 or CHM336 are pre-or corequisites for this course. Students enrolled in the BA program will not need to take these two Physical Chemistry courses. Instead, they will be required to take one semester Physical Chemistry course, CHM 320. The change in the pre-or-corequisites will allows the students taking the new Physical Chemistry course, CHM 320 to take CHM 442. | | |
| Submission to Committee Chair | 4/21/2022 sent to Committee Chair and Curriculum Office | | |
| APPROVAL | Chemistry Department 11/29/2021  Include Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s) | | |
| CONSULTATION | N/A  Include Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s). | | |

**AV.4 DEPARTMENT OF CHEMISTRY: CHM 452 Polymer Chemistry**

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| FROM | USE STRIKETHROUGH FOR ~~CHANGES~~ | TO | USE UNDERLINE FOR CHANGES |
| Department/Program | CHM | Department/Program | No Change |
| Course No. and Title | CHM452 Polymer Chemistry | Course No. AND TITLE | No Change |
| Prerequisite | CHM256, (CHM330 and CHM336) | Prerequisite | CHM 256, (CHM 330 and CHM 336) or CHM 320 |
| Corequisite |  | Corequisite | No Change |
| Pre or corequisite |  | Pre or corequisite | No Change |
| Credits | 4 | Credits | No Change |
| Hours | 4 Lectures | Hours | No Change |
| CATALOG DESCRIPTION | Principles of macromolecular synthesis by radical chain, ionic chain, step, and ring-opening polymerizations. Copolymerization, stereochemical regulation, and polymer reactions. Characterization of polymers with respect to molecular structure, shape, size distribution, and crystalline-amorphous structure. | CATALOG DESCRIPTION | No Change |
| Liberal Arts AND SCIENCES | NO | Liberal Arts AND SCIENCES | No Change |
| GenERAL EDUCATION | Life and Physical Sciences | GenERAL EDUCATION | No Change |
| Effective | N/A | Effective | Spring 2022 |
| Role in Curriculum | Baccalaureate level Biochemistry and Chemistry major requirement | | |
| Rationale | The proposed changes in the prerequisites of this course will allows students enrolled in the new BA Chemistry and Biochemistry degrees to take this course towards their major requirement. Currently, CHM330 or CHM336 are pre-or corequisites for this course. Students enrolled in the BA program will not need to take these two Physical Chemistry courses. Instead, they will be required to take one semester Physical Chemistry course, CHM 320. The change in the pre-or-corequisites will allows the students taking the new Physical Chemistry course, CHM 320 to take CHM 452. | | |
| Submission to Committee Chair | 4/21/2022 sent to Committee Chair and Curriculum Office | | |
| APPROVAL | Chemistry Department 11/29/2021  Include Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s) | | |
| CONSULTATION | N/A  Include Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s). | | |

**AV.5 DEPARTMENT OF CHEMISTRY: CHM 360 INORGANIC CHEMISTRY**

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| FROM | USE STRIKETHROUGH FOR ~~CHANGES~~ | TO | USE UNDERLINE FOR CHANGES |
| Department/Program | CHM | Department/Program | No Change |
| Course No. and Title | CHM360 Inorganic Chemistry | Course No. AND TITLE | No Change |
| Prerequisite | CHM240 | Prerequisite | No Change |
| Corequisite | Click or tap here to enter text | Corequisite | No Change |
| Pre or corequisite | CHM330 or CHM336 or CHM340 | Pre or corequisite | CHM 330 or CHM 336 or CHM 340 or CHM 320 |
| Credits | 4 | Credits | 5 |
| Hours | ~~3 Lecture~~, 3 Lab | Hours | 4 Lecture, 3 Lab |
| CATALOG DESCRIPTION | The course covers general bonding theories of inorganic compounds, symmetry elements and point groups, acid-base properties, coordination chemistry and reaction mechanism, organometallic chemistry, and an introduction to bioinorganic chemistry. | CATALOG DESCRIPTION | No Change |
| Liberal Arts AND SCIENCES | NO | Liberal Arts AND SCIENCES | No Change |
| GenERAL EDUCATION | Life and Physical Sciences | GenERAL EDUCATION | No Change |
| Effective | N/A | Effective | Spring 2022 |
| Role in Curriculum | Baccalaureate level Biochemistry and Chemistry major requirement | | |
| Rationale | The proposed changes in the prerequisites of this course will allows students enrolled in the new BA Chemistry and Biochemistry degrees to take this course towards their major requirement. Currently, CHM330 or CHM336 are pre-or corequisites for this course. Students enrolled in the BA program will not need to take these two Physical Chemistry courses. Instead, they will be required to take one semester Physical Chemistry course, CHM 320. The change in the pre-or-corequisites will allows the students taking the new Physical Chemistry course, CHM 320 to take CHM 360. In addition to this, the lecture hours of the course are increased from 3 to 4. This is because since CHM 360 is the only Inorganic Chemistry course offered by the department we have observed that many students who register for CHM360 often struggle with its contents, which leads to their poor performance. To address this issue, we seek to convert the current “3 lecture hours, 3 laboratory hours, 4 credits” course to the proposed “4 lecture hours, 3 laboratory hours, 5 credits” course. This change will not impact students or the college with financial burden as the one-hour lecture time increase was accompanied with a 1 credit increase. | | |
| Submission to Committee Chair | 4/21/2022 sent to Committee Chair and Curriculum Office | | |
| APPROVAL | Chemistry Department 11/29/2021  Include Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s) | | |
| CONSULTATION | N/A  Include Dean(s) Name, Department Chair(s) Name/Program Director(s) Name and Date(s). | | |

**AV.6 DEPARTMENT OF MANAGEMENT: MGT 430 APPLIED SPORTS MANAGEMENT**

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| **FROM** | **USE STRIKETHROUGH FOR CHANGES** | **TO** | **USE UNDERLINE FOR CHANGES** |
| Department/Program | MANAGEMENT | Department/Program | NO CHANGE |
| Course No. and Title | MGT 430 Applied Sports Management | Course No. AND TITLE | NO CHANGE |
| Prerequisite | MGT 326 | Prerequisite | MGT 110 AND MKT 111 |
| Corequisite | N/A | Corequisite | N/A |
| Pre or corequisite | N/A | Pre or corequisite | N/A |
| Credits | 3 | Credits | NO CHANGE |
| Hours | 3 | Hours | NO CHANGE |
| CATALOG DESCRIPTION | The course explores applications of sports management. Emphasis is on organizational structure, key roles and responsibilities, media relations and media management, contract negotiations and issues, and stakeholder safety. | CATALOG DESCRIPTION | NO CHANGE |
| LIBERAL ARTS & SCIENCES | NO | LIBERAL ARTS & SCIENCES | NO CHANGE |
| GENERAL EDUCATION | N/A | GENERAL EDUCATION | N/A |
| Effective |  | Effective | SPRING 2023 |
| Role in Curriculum | This is an option in the MGT concentration and a requirement in the minor. | | |
| Rationale | *Fundamentals of sports management and Applied Sports Management focus on different aspects. MGT326 analyses external forces that affect managerial decisions in sports and how business organizations and individuals respond to these forces (careers, leadership, and stakeholders’ value creation, among others). MGT 430, on the other hand, focuses on the management of resources, capabilities, and core competencies to obtain and sustain competitive advantage in this industry (communication and promotion, negotiation, facilities and events, and fans’ experience and safety, among others). The number designation signals a sequence recommendation from the Department of Management that aligns with the standard presentation of strategic analysis in management to create and sustain competitive advantage (first: external factors and, second: resources, capabilities, and core competencies).* | | |
| Submission to Committee Chair | 2/1/22 | | |
| APPROVAL | DEPARTMENT OF MANAGEMENT 3/22, UCC 5/6/22 | | |
| CONSULTATION | Simone Wegge (Economics): 4/29/2022. Thomas Tellefsen (Marketing), 4/30/2022. George Wang (Accounting and Finance), 4/30/2022, Mark White (Philosophy), 5/2/2022, Jonathan Peters (BDA), 5/3/2022 | | |

**SECTION AVI: WITHDRAWN COURSES**

**N/A**

**SECTION AVII: AFFILIATION AGREEMENTS**

N/A