SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 1 of 124

COLLEGE OF BUSINESS

Department of Accountancy

Other Catalog Change 2019-20 Undergraduate Catalog LINK CBUSUG19.20.05.02

Department Requirements

Retention in the accountancy program is competitive based on a student's overall GPA and grades grade earned in ACCY 206 and ACCY 207 or equivalent courses course.

<u>Rationale</u>: To encourage student retention and better prepare students for the internship/career fair recruiting process, which begins in the first month of the junior year, we would like to retain students as Accountancy majors after the completion of ACCY 206 (generally taken in the first semester of their sophomore year). We would then recommend that students take the careers course (ACCY 370) in the second semester of their sophomore year. Our current retention policy requires a grade of B or better in ACCY 206 and ACCY 207. We will be keeping the requirement of a grade of B or better for ACCY 206, as it serves as the foundation for several other upper-level courses (e.g. ACCY 331, 332, 360, 433, 450, 480), and supports the most common entry-level career paths in accounting (e.g. financial reporting, auditing, tax, etc.). We will no longer be requiring a grade of B or better for ACCY 207, which serves as the foundation for fewer upper-level courses (e.g. ACCY 320, 421) and supports less common entry-level career paths in accounting (e.g. financial reporting, auditing, tax, etc.). We will no longer be requiring a grade of B or better for ACCY 207, which serves as the foundation for fewer upper-level courses (e.g. ACCY 320, 421) and supports less common entry-level career paths in accounting (e.g. corporate). The College of Business requires a C or better in ACCY 207, and past data suggests that students who received a C in ACCY 207 (Introductory Cost Management) have been successful in completing their degree at NIU. By changing the ACCY 207 grade requirement to a C or better, we are recognizing that students may attain a C in ACCY 207 and still succeed in their chosen branch of accounting.

Department of Marketing

Other Catalog Change

2019-20 Undergraduate Catalog LINK

CBUSUG19.20.05.04

Marketing (B.S.)

↓ Requirements in Department (24)

Electives in marketing, which could include UBUS 485, or one of the following areas of study (9)

Credits earned in MKTG 295, Principles of Marketing, and MKTG 458, Internship in Marketing, may not be used to complete the elective requirement.

Digital Marketing (9)

• MKTG 470 - Interactive Marketing Technology Credits: 3 And two of the following (6)

- MKTG 355 Multichannel Direct Marketing Credits: 3
- MKTG 407 Social and Mobile Marketing Credits: 3
- MKTG 448 Integrated Marketing Communications Credit: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 2 of 124

• MKTG 455 - Database Marketing and Data Mining Credits: 3 International Marketing (9)

↓

<u>Rationale</u>: MKTG 407 is a new course being developed to update our electives in the digital marketing area of study to make it more in line with industry needs.

Other Catalog Change2019-20 Undergraduate Catalog LINKCBUSUG19.20.05.05

Digital Marketing (12) Certificate of Undergraduate Study ↓

Required Courses

- MKTG 370 Principles of Digital Marketing Credits: 3
- MKTG 443 Marketing Research Credits: 3
- MKTG 470 Interactive Marketing Technology Credits: 3

One of the Following (3)

- MKTG 355 Multichannel Direct Marketing Credits: 3
- MKTG 407 Social and Mobile Marketing Credits: 3
- MKTG 448 Integrated Marketing Communications Credit: 3
- MKTG 455 Database Marketing and Data Mining Credits: 3
- OMIS 452 Database Management for Business Credits: 3

<u>Rationale</u>: MKTG 407 is a new course being developed to update our digital certificate to make it more in line with industry needs. OMIS 452 was underutilized by students earning the digital certificate, so it was eliminated from the elective requirement.

COLLEGE OF EDUCATION

Counseling and Higher Education

Other Catalog Change 2019-2020 Undergraduate Catalog

Online Catalog LINK CEDU19.20.07.01

Minor in Counseling

Required courses (12)

- CAHC 211 Career Planning Credits: 3
- CAHC 400 Exploration in the Counseling Profession Credits: 3
- CAHC 425 Human Relations Skills and Strategies Credits: 3
- OR REHB 493 Counseling in Rehabilitation Services Credits: 3
- SCL 100 Foundation of Social Change Leadership Credits: 3 OR SCL 200-Applications of Social Change Leadership Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 3 of 124

RATIONALE: Both Counseling and Higher Education faculty agree that SCL 200 is an appropriate option as a required course for the Counseling minor. This change will bring the catalog into alignment with advising practices already occurring, and will help to avoid future course substitution requests.

Curriculum and Instruction

Course Revision2019-2020Undergraduate CatalogOnline catalogLINKCEDU19.20.07.02

Course List

Reading (LTRE)

320. Organizing for Effective Diagnostic Assessment of Reading <mark>Instruction</mark> (3). Assessing reading achievement and organizing use of standardized and informal assessments of reading, oral language, and spelling for diagnostic reading instruction to address individual differences.

Prerequisites & Notes

PRQ: LTRE 300 or registered for LTRE 300 in the same semester, GPA of at least 2.75 and junior standing.

Credits: 3

RATIONALE: Course title and course description need to be updated to maintain course relevancy and to be in alignment with current language in the field.

Need to include additional prerequisite to course to ensure appropriate pedagogical sequencing.

Course Revision2019-2020Undergraduate CatalogOnline catalogLINKCEDU19.20.07.03

Course List

Reading (LTRE)

330. Practicum in Reading Diagnosis (3). Administration and interpretation of various formal and informal assessments. Emphasis on developing case studies and preparing case reports.

Prerequisites & Notes

PRQ: LTRE 320, GPA of at least 2.75 and senior junior standing.

Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 4 of 124

RATIONALE: The description should include additional prerequisite of class standing to ensure appropriate pedagogical sequencing. Change of senior standing to junior standing allows for updated sequencing in elementary education program.

Course Revision2019-2020Undergraduate CatalogOnline catalogLINKCEDU19.20.07.04

Course List ↓ Reading (LTRE)

331. Practicum in Problems of Teaching Reading Diagnosis (3). Diagnostic techniques and clinical experience in teaching literacy strategies.

Prerequisites & Notes

CRQ: PRQ: LTRE 330, GPA of at least 2.75 and senior junior standing.

Credits: 3

RATIONALE: The description should include additional prerequisite to ensure appropriate pedagogical sequencing. Change of senior standing to junior standing allows for updated sequencing in elementary education program.

Course Revision2019-2020Undergraduate CatalogOnline catalogLINKCEDU19.20.07.05

Course List

Reading (LTRE)

401. Practicum in Teaching Developmental Reading: Elementary Level (3). Practical applications and experiences in developing diagnostic teaching techniques and strategies to improve the reading skills and meet the needs of individual students.

Prerequisites & Notes

PRQ: LTRE 330, LTRE 331, GPA of at least 2.75 and senior standing

Credits: 3

RATIONALE: Title and course description should maintain course relevancy and be in alignment with current language in the field.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 5 of 124

The Reading Teacher Endorsement coursework comprises foundational coursework in reading methods, assessment/diagnosis, and three practica involving tutoring of students. LTRE 401 is the final of the three practicum courses in which Reading Teacher Endorsement (RTE) students work with mostly K-3 students on decoding and comprehension issues. In order to work with and plan for those K-12 students effectively, RTE students must take the practicum courses (LTRE 330 and LTRE 331) before taking LTRE 401.

Course Revision2019-2020Undergraduate CatalogOnline catalogLINKCEDU19.20.07.06

Pre-student teaching practicum to be taken in conjunction with methods courses. Methodology related to practice through teaching experiences in elementary school classrooms. Requires a minimum of 48 clock hours per semester hour of professional field experience in the classroom. Design, implementation, and evaluation of lesson plans and instructional unit plans required. S/U grading.

Prerequisites & Notes PRQ: TLEE 385 and LTRE 350. CRQ: TLEE 344, MATH 403, and ETR 430.

Credits: 2

RATIONALE: The MATH 403 course is in the required pre-student Professional Semester degree plan. This needs to be added to the CRQ. This course is specific to NIU and not one that could transfer in from other universities. There are assignments tied to the field program in this course.

Course Revision2019-2020Graduate CatalogOnline catalogLINKCEDU19.20.07.07

LTRE 713 - Seminar in Comparative Reading Literacies in the Era of Globalization

RATIONALE: Course title should reflect updated terminology and scholarship: The term "literacy" has replaced "reading" in multiple national associations and is more expansive. The plural, "literacies," recognizes the distinct but intersecting modes of communication in reading, writing, talking, listening, viewing, and representing in the modern era.

The updated course will be of greater interest to doctoral students in both reading and ESL/Bilingual units.

Course Revision2019-2020Graduate CatalogOnline catalogLINKCEDU19.20.07.08

Course List

Reading (LTRE)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 6 of 124

718. Adult Reading Instruction Adult, Family, and Community Literacies (3).

Emphasis on the teaching of reading to adults; strategies applicable to meet the needs of the adult learner; functional alternatives for instruction; preparation of volunteers and the role of the reading teacher with adults. Examines different paradigms of adult literacy instruction, cycles of literacy, and community influences on literacy development.

RATIONALE:

- 1. Change of course title to match updated terminology and scholarship.
- 2. The updated course will be of greater interest to doctoral students with a greater range of backgrounds both within the specialization of literacy, and from other disciplines.

Counseling and Higher Education

Other Catalog Change 2019-2020 Undergraduate Catalog

CEDU19.20.08.01

LINK

Minor in Social Change Leadership

Students must complete 18 semester hours for this minor and are urged to complete SCL 100 and EPFE 302 as early as possible. Elective courses for the minor are chosen to complement the student's background, interests, and career plans, and, in some instances help satisfy knowledge domain requirements in the general education program. The cumulating course for the minor is SCL 498, in which students will develop and implement a capstone project. The capstone project could be an intensive case study, research paper, action research project, or other scholarly work in social change leadership. Students must take three credit hours of SLC 486: Internship in Social Change Leadership, either all together, or taken across semesters, at one or more credit hours at a time, as approved by the program coordinator and internship supervisor.

Required courses

- <u>SCL 100 Foundation of Social Change Leadership</u> Credits: 3 Available for general education credit.
- <u>SCL 200 Application of Social Change Leadership</u> Credits: 3
- <u>SCL 486 Internship in Social Change Leadership</u> Credits: 1-3

Students must take 3 semester hours in this course

- <u>SCL 492 Capstone in Social Change Leadership</u> Credits: 3
- EPFE 302 Advocacy, Justice and Leadership in a Diverse Society Credits: 3

Elective courses (6)

- Courses not listed above may be used to satisfy elective requirements when the topic is appropriate and approved by the social change leadership minor coordinator.
- <u>SCL 486 Internship in Social Change Leadership Credits: 1-3</u>
- SCL 492 Capstone in Social Change Leadership Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 7 of 124

• <u>SCL 493 - Leadership in the College Experience</u> Credits: 3

RATIONALE: In conversations with program faculty and students, we decided to require students to participate in an internship experience (SCL 486) and make the Capstone in Social Change Leadership an optional course. Given the importance of applied and experiential learning, program faculty believe that requiring the internship would make sure that students had an opportunity to apply concepts and information from the coursework to practice. The internship course will require students to engage in reflection of the skills, knowledge, and competencies they are learning during their internships experience. They will also be required to reflect on how they are incorporating content from coursework in their internship experience. Internship experiences often provide valuable work experience for students in which they can practice and apply content information learned during coursework.

Kinesiology and Physical Education

New Course 2019-2020 Undergraduate Catalog

CEDU19.20.09.04

Course Number: LESM 202

Title: Introduction to the Esports Industry

Semester Hours: 3

CIP Code: 31.0504

Page Listing: Online Undergraduate Catalog; 2020-2021

COURSE DESCRIPTION TO BE USED IN CATALOG:

Overview of the Esports industry. Primary focus on the exploration of the basic components of and professional opportunities in the current Esports industry.

RATIONALE: Coursework in the soon to be proposed interdisciplinary minor in Esports Industry. In 2019, the Esports industry exceeded the billion-dollar revenue mark. As a result, professional opportunities are becoming more prevalent. This course will introduce students to these job possibilities. Coursework would be of interest for students in majoring business, sport management, time arts, illustration, computer science, and others interested in a potential career in this field.

DUPLICATION: Since this course is program specific, there will be no course duplication with any other course currently being given on campus.

New Course 2019-2020 Undergraduate Catalog

CEDU19.20.09.05

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 8 of 124

Course Number: LESM 302

Title: Strategies in the Esports Industry

Semester Hours: 3

CIP Code: 31.0504

Page Listing: Online Undergraduate Catalog; 2020-2021

COURSE DESCRIPTION TO BE USED IN CATALOG:

Examination of various aspects of the Esports industry. Topics include team and league structures, player and competitive game management, social media strategies, event management, Esports product strategies, diversity issues, and current and future industry issues.

RATIONALE: Coursework in the soon to be proposed interdisciplinary minor in Esports Industry. In 2019, the Esports industry exceeded the billion-dollar revenue mark. As a result, professional opportunities are becoming more prevalent. This course will introduce students to these job possibilities. Coursework would be of interest for students in majoring business, sport management, time arts, illustration, computer science, and others interested in a potential career in this field.

DUPLICATION: Since this course is program specific, there will be no course duplication with any other course currently being given on campus.

New Course 2019-2020 Undergraduate Catalog

CEDU19.20.09.06

Course Number: LESM 453

Title: Advanced Experience in Esports Industry

Semester Hours: 3

CIP Code: 31.0504

Page Listing: Online Undergraduate Catalog; 2020-2021 Undergraduate Catalog LINK

COURSE DESCRIPTION TO BE USED IN CATALOG:

Enhancement of students' practical experiences in the Esports industry. Via a series of guest lecturers, individual and group assignments, and practical experiences, students will hone organizational,

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 9 of 124

planning, managing, marketing, leadership, and selling skills specific to the Esports industry. PRQ: Consent of department.

RATIONALE: Coursework in the soon to be proposed interdisciplinary minor in Esports Industry. In 2019, the Esports industry exceeded the billion-dollar revenue mark. As a result, professional opportunities are becoming more prevalent. This course will introduce students to these job possibilities. Coursework would be of interest for students in majoring business, sport management, time arts, illustration, computer science, and others interested in a potential career in this field.

DUPLICATION: Since this course is program specific, there will be no course duplication with any other course currently being given on campus.

Other Catalog Change 2019-2020 Undergraduate Catalog

CEDU19.20.09.07

<u>LINK</u>

This physical education major is designed to prepare educator licensure candidates to teach physical education in grades kindergarten through 12th grade (PE K-12). Students must take KNPE 200, 203, 235, and 340 within the first 15 semester hours of their program. KNPE 335, Developmental Skill Based Approach to Teaching, must be taken within the first 30 semester hours of their program. All students seeking licensure to teach physical education must submit a satisfactory electronic teaching portfolio to complete student teaching requirements. Students are urged to take KNPE 200, Introduction to Teaching Physical Education, during their first semester in order to begin the portfolio.

To remain a major in physical education, candidates must (a) maintain a cumulative GPA of 2.75 or better, (b) receive a grade of C or better in professional and clinical coursework, and (c) pass all statemandated licensure tests the semester before enrolling in student teaching courses.

All students seeking admission to teacher education are required to have an overall minimum GPA of 2.75, a grade of C or better in all foundational studies requirements (12 credit hours), and pass the ILTS Test of Academic Proficiency (TAP) or a minimum composite score or higher as set by the State of Illinois on the ACT Plus Writing. These requirements must be met no later than the semester prior to student teaching (KNPE 483, KNPE 484, KNPE 485).

All students seeking admission to teacher education are required to have an overall minimum GPA of 2.75, a grade of C or better in all foundational studies requirements (12 semester hours), and pass the ILTS Test of Academic Proficiency (TAP) or have the state approved equivalent score or higher on the ACT Plus Writing. These requirements must be met prior to admission to KNPE 302. Admission to KNPE 302 constitutes admission to teacher education in physical education. Once admitted to the program, students must provide proof of valid First Aid/CPR certification (American Red Cross or American Heart Association) each semester. In accordance with ISBE requirements, students must earn a grade of C or better in the following courses in order to be eligible for licensure: KNPE 200, KNPE 203, KNPE 235, KNPE 302, KNPE 303, KNPE 335, KNPE 340, KNPE 343, KNPE 344, KNPE 348, KNPE 364, KNPE 365, KNPE 368, KNPE 421, KNPE 449, KNPE 466, KNPE 467, KNPE 468, KNPE 490, and KNPE

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 10 of 124

492. Students are encouraged to maintain close contact with their advisor advisers as the teacher preparation program in physical education is tightly sequenced.

Candidates who successfully complete the program and pass the state mandated Teacher Performance Assessment will have completed all required ISBE and CAEP standards for receiving university recommendation for licensure. Successful completion of the program without receipt of a passing score on the state mandated Teacher Performance Assessment may result in the candidate receiving a degree without university recommendation for licensure.

The student learning outcomes for this degree are located at http://www.niu.edu/assessment/clearinghouse/outcomes/index.shtml.

Check departmental information for any additional requirements.

RATIONALE: The State of Illinois has changed the rules governing admission to professional educator licensure programs. Candidates may now progress to the semester before student teaching before they pass the Test of Academic Proficiency (TAP) or a state approved substitution. This change brings the program into compliance with Illinois State law.

CEDU19.20.09.12

Special and Early Education

Other Catalog Change 2019-2020 Undergraduate Catalog LINK OBJ Special Education (B.S.Ed.) Emphasis 4.:-Special Populations Electives (6-9)

REHB 426 - Introduction to Topics in Rehabilitation Services Credits: 1

REHB 200 – Disability in Society: 3

RATIONALE: After communication with the Rehabilitation and Disability Services faculty, they recommended the inclusion of REHB 200 rather than REHB 426 due to the frequency of the course offerings and the number of credit hours. Students can enroll in REHB 200 earlier in their program than they can enroll in REHB 426. REHB 426 requires consent of school, but REHB 200 does not. These factors will enable students to engage in their core coursework earlier in their program through REHB 200.

COLLEGE OF ENGINEERING AND ENGINEERING TECHNOLOGY

DEPARTMENT OF ELECTRICAL ENGINEERING

Course Revision: 2019-2020 Undergraduate Catalog LINK CEET19.20.03.01

ELE 250. COMPUTER ENGINEERING I (3). Design of digital circuits using SSI, LSI, and VLSI components. Combinational design techniques as well as sequential design techniques presented

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 11 of 124

with the use of Boolean algebra, map method, tabulation method, and state transition diagrams. PRQ: Math 229 ELE 210 with a grade of C or better.

This course revision reflects changes to the pre-requisite requirements for ELE 250. ELE 250 now doesn't require ELE 210 as pre-requisite. This change has been made as the course content for ELE 250 seldom contains references to circuit analysis as this course primarily deals with logic design and a basic introduction to computer architecture.

Course Revision: 2019-2020 Undergraduate Catalog LINK CEET19.20.03.02

ELE 250U. COMPUTER ENGINEERING I LABORATORY (1). Laboratory experiments related to the design and implementation of digital systems. Combinational and sequential circuits are investigated. PRQ: ELE 210U. CRQ: ELE 250.

This course revision reflects changes to the pre-requisite requirements for ELE 250U. ELE 250U now doesn't require ELE 210U as pre-requisite. This change has been made as the course content for ELE 250U seldom contains references to circuit analysis as this course primarily deals with logic design and a basic introduction to computer architecture.

<u>Course Revision:</u> 2019-2020 **Undergraduate Catalog** <u>LINK</u> <u>CEET19.20.03.03</u>

ELE 495. SENIOR ELECTRICAL ENGINEERING DESIGN I (3). Complete preparation of an engineering system design or project covering problem identification, conceptual design and analysis, prototyping and the development of a work schedule required to carry out the project. Includes methodology, standards and safety codes, professional ethics, decision making, design evaluations, and oral and written communication. A writing-intensive course. Offered in the fall. Students are expected to take ELE 496 the following spring. PRQ: ELE 315, ELE 330, ELE 356, ELE 395 and consent of department.

Rationale: This course change reflects changes to pre-requisites of Electrical Engineering Senior Design ELE 495. ELE 495 now feature new pre-requisite requirements to ensure that the students taking these classes have completed enough core course requirements that they could successfully execute their senior design project.

Course Revision: 2019-2020 Undergraduate Catalog LINK CEET19.20.03.04

ELE 470. MICROWAVE CIRCUITS AND DEVICES (3). Wave equation; microwave waveguides and components; solid-state devices and circuits; microwave integrated circuits; microwave test equipment and laboratory measurements.

Passive and active RF and microwave components and circuits: transmission-line theory; planar transmission-lines and waveguides; S-parameters; resonators; power dividers and couplers; microwave filters; sources, detectors, and active devices; modern RF & microwave CAD; measurement techniques. PRQ: ELE 370.

Rationale:

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 12 of 124

The course content of ELE 470 has been updated to make it relevant to the current course curriculum. Further, the course content is now consistent with the graduate level counterpart of this course-ELE 570 that is being newly introduced.

MECHATRONICS ENGINEERING PROGRAM

Course Revision: 2019-20 Undergraduate Catalog LINK CEET19.20.05.07

MCTR 210. PROGRAMMING FOR MECHATRONICS (3). Computer programming, focused on mechatronics applications. Object-oriented programming, analog-digital conversion, signal generation, elementary filtering algorithms, multi-threading, communication protocols, data logging and visualization. Development of microcontroller and single-board computer-based devices that interface with sensors, actuators, and the Internet. PRQ: CSCI 240 and PHYS 273. CRQ: ELE 210.

Rationale: By changing the requirement from ELE 210 to PHYS 273, we are reducing the barrier to enter MCTR 210. The electrical circuits taught in PHYS 273 will be sufficient for this class, which focuses more on programming.

DEPARTMENT OF ENGINEERING TECHNOLOGY

Other Catalog Change 2019-2020 Undergraduate Catalog LINK CEET19.20.05.08

Homeland Security (18-21) ↓ Certificate of Undergraduate Study ↓ Emergency Management Response Track ↓ <u>TECH 433 - Chemical Hazards in Industry</u> Credits: 3 <u>TECH 436 - Design and Administration of Industrial Environmental Health and Safety</u> <u>Programs</u> Credits: 3 <u>TECH 437 - Fundamentals of Industrial Hygiene</u> Credits: 3

Rationale: The name change better reflects the Environmental Health & Safety Program name and the actual working world organizational designation for our graduates.

Course Revision: 2019-20 Undergraduate Catalog LINK CEET19.20.05.09

TECH 270 - ELECTRICAL FUNDAMENTALS AND CIRCUIT ANALYSIS I (3) Introduction to circuit elements and models; Kirchhoff's laws, Thevenin's theorem, and Norton's theorem; maximum power transfer; series and parallel circuits; power triangle; two-port networks; equivalent networks with direct current or sinusoidal current.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 13 of 124

Prerequisites & Notes

PRQ: MATH 155 with a C or better; and either PHYS 211 with a C or better, or PHYS 273 with a C or better, choose from one of the following sets of courses: either PHYS 211 with a C or better' or PHYS 273 with a C or better; or both TECH 175 and 175A with a C or better.

CRQ: TECH 270A.

Rationale: This is to add back TECH 175 and 175A as one of the prerequisites so that all Technology students can take TECH 175. Changes have been made to the TECH 175 course content to allow it to now be used as a PRQ.

DEPARTMENT OF INDUSTRIAL AND SYSTEMS ENGINEERING

Other Catalog Change 2019-20 Undergraduate Catalog LINK CEET19.20.06.01

Lean Six Sigma (12)

Certificate of Undergraduate Study

This certificate introduces undergraduate students to those skills required in manufacturing and service plants that apply the principles of lean production and six sigma. Industry, in general, expects graduates of industrial and systems engineering to have a strong background in lean production and six sigma concepts.

Students must achieve a minimum of a C in each course applied toward all certificates in the Department of Industrial and Systems Engineering.

Requirements

ISYÉ 430 - Quality Control Credits: 3 ISYE 435 - Experimental Design for Engineering Credits: 3 ISYE 439 - Six Sigma Performance Excellence and Modern Problem Solving Credits: 3 ISYE 450 - Lean Manufacturing Systems Credits: 3 **ISYE 470 - Introduction to Data Analytics for Engineers Credits: 3**

Rationale: The courses are better reflection of the skills needed for the certificate.

Other Catalog Change 2019-20 Undergraduate Catalog LINK CEET19.20.06.02

Logistics (12)

Certificate of Undergraduate Study

This certificate equips undergraduate students with skills required to effectively manage a supply chain and its constituents. Effective management of supply chain and its constituents is important to effectively and efficiently compete in a global economy.

Students must achieve a minimum of a C in each course applied toward all certificates in the Department of

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 14 of 124

Industrial and Systems Engineering.

Requirements

ISYE 440 - Production Planning and Control Credits: 3 ISYE 450 - Lean Manufacturing Systems Credits: 3 ISYE 460 - Facilities Planning and Design Credits: 3 ISYE 461 - Warehousing and Distribution Systems Credits: 3 ISYE 466 - Analysis and Design of Supply Chain Systems Credits: 3 ISYE 470 - Introduction to Data Analytics for Engineers Credits: 3 ISYE 474 - Scheduling and Logistics Credits: 3

Rationale: Adding a course to the certificate to provide additional options for the students. Feedback from industry and senior design project sponsors indicate the need for data analytics skills in the areas of supply chain, warehousing, and logistics. Lean is removed because it is not as relevant to this certificate topic.

DEPARTMENT OF INDUSTRIAL AND SYSTEMS ENGINEERING

Other Catalog Change 2019-20 Undergraduate Catalog Link CEET19.20.07.01

Industrial and Systems Engineering (B.S.)

Emphasis 1. Health Systems Engineering

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Technical Courses (15)

Select four two courses from the following

- PHHE 435 Ethical Decision Making for Health Professionals Credits: 3
- PHHE 441 Introduction to Health Care Administration Credits: 3
- PHHE 451 Economic Issues in Public Health Credits: 3
- PHHE 453 Financial Management of Health Care Organizations Credits: 3
- PHHE 461 Public Health and the U.S. Health Care System Credits: 3
- PHHE 467 Public Health Research and Evaluation Credits: 3 PHHE 467 is a Writing Infused course.
- PHHE 469 Principles of Health Planning Credits: 3 PHHE 469 is a Writing Infused course.

Select one three course from the following

- ISYE 439 Six Sigma Performance Excellence and Modern Problem Solving Credits: 3
- ISYE 470 Introduction to Data Analytics for Engineers Credits: 3
- ISYE 472 Queueing Methods for Services and Manufacturing Credits: 3
- ISYE 475 Decision Analysis for Engineering Credits: 3
- ISYE 482 Engineering Information Systems Credits: 3
- OMIS 351 Information Systems in Organizations Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 15 of 124

Emphasis 3. Engineering Management

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Technical Courses (15)

Three of the following:

- ISYE 442 Engineering Project Management Credits: 3
- ISYE 470 Introduction to Data Analytics for Engineers Credits: 3
- ISYE 475 Decision Analysis for Engineering Credits: 3
- ISYE 490 Systems Engineering Management Credits: 3
- OR TECH 485 Risk Management Credits: 3
- MGMT 333 Principles of Management Credits: 3
- OR ECON 301 Labor Problems Credits: 3
- OR PSYC 372 Social Psychology Credits: 3
- OR TECH 404 Supervision in Industry Credits: 3

Rationale: The PHHE courses are not offered regularly making the emphasis difficult to achieve. ISYE 439 and ISYE 470 are additional options for students.

Course Revision: 2019-20 Undergraduate Catalog LINK

CEET19.20.07.02

ISYE 498 - Contemporary Topics in Industrial Engineering

May be repeated to a maximum of 9 semester hours, with no more than 3 semester hours in the same topic area.

Prerequisites & Notes

PRQ: Consent of department.

Credits: 01--3

Rationale: ISYE 498 can be taken as an elective. However, students in one of the three emphasis do not require (or cannot take) ISYE 498 as each emphasis has its own set of technical elective courses to choose from. However, by having the 0 credit hour option, students from any one of the emphasis can still register for ISYE 498 and benefit at no additional cost. The department is planning to offer seminar series for our undergraduate students on contemporary topics in ISYE.

Course Revision: 2019-20 Undergraduate Catalog LINK CEET19.20.07.03

ISYE 593 - Contemporary Topics in Industrial Engineering

May be repeated to a maximum of 9 semester hours, with no more than 3 semester hours in the same topic area.

Prerequisites & Notes

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 16 of 124

PRQ: Consent of department.

Credits: 01--3

Rationale: The department is planning to offer a seminar series for our undergraduate and new graduate students on contemporary topics in ISYE. This allows the graduate students to learn about new topics and research and how it complements the courses they are or are going to take and benefit at no additional cost.

Course Revision: 2019-20 Graduate Catalog LINK CEET19.20.07.04

ISYE 640. ADVANCED PRODUCTION AND INVENTORY CONTROL (3). Single and parallelmachine sequencing. Job shop and flow shop scheduling. Mathematical Advanced theory and methods of single and multicommodity inventory control systems. Underlying behavior of production systems. Production Modern approaches to production planning and operations management. for static and dynamic models. Mathematical modeling approach toward forecasting.

PRQ: STAT 350 and ISYE 671, ISYE 540 or consent of department.

Rationale: Description of the course is updated to offer a more precise overview of the course contents. This course is focused on advanced inventory control methods and modern approaches to production systems. This course has less emphasis on machine sequencing, scheduling and mathematical theory. Students should have basic knowledge in production and inventory control (ISYE 540) before taking this course. Statistics (STAT 350) and linear programming (ISYE 671) are not required.

Course Revision: 2019-20 Graduate Catalog LINK CEET19.20.07.05

ISYE 670 - Data Analytics for Engineers

Crosslisted as MEE 635X. Applying analytical tools and techniques to effectively extract and interpret complex patterns found in large amounts of engineering data. Develop predictive modeling skills to make informed decisions on problems that occur in engineering practice. Major topics include: data visualization, modeling, classification methods, clustering, and learning algorithms.

Prerequisites & Notes

PRQ: ISYE 570 335 or STAT 350, or consent of the department.

Credits: 3

Rationale: ISYE 570 Introduction to Data Analytics is being offered this semester and it includes topics such as data visualization, data exploration, feature selection, and cross validation. ISYE 670 focuses on advanced predictive modeling and analysis. ISYE 570 is a good prerequisite for the ISYE 670 because it discusses how to use properly assess model fit by using the techniques like feature selection and cross validation.

Course Revision: 2019-20 Graduate Catalog LINK CEET19.20.07.06

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 17 of 124

ISYE 675. ADVANCED DECISION ANALYSIS FOR ENGINEERING (3)

Application of Introduction to advanced statistical and strategic methods for decision making to engineering, with emphasis on problems in engineering, industry and operations.

Prerequisite & Notes:

ISYE 371 ISYE 335 or STAT 300, or consent of department.

Credits: 3

Rationale: Students need knowledge of statistics to understand the advanced statistical methods in this course. Knowledge of probabilistic operations research models (ISYE 371) is not required.

DEPARTMENT OF MECHANICAL ENGINEERING

Other Catalog Change 2019-20 Undergraduate Catalog LINK CEET19.20.07.07 **Department of Mechanical Engineering (MEE)** T **Major in Mechanical Engineering (B.S.) Requirements in Department (66-67)** MEE 210 - Engineering Mechanics I (3) MEE 322 - Dynamic Systems and Control I (3) OR ELE380 - Control Systems I (4) MEE 486 - Senior Mechanical Engineering Design II (3) OR MEE 486C - Senior Mechanical Engineering Design II: Emphasis in Advanced Computing and Simulation (3) OR MEE 486E - Senior Mechanical Engineering Design II: Emphasis in Sustainable Energy (3) **OR MEE 486M - Senior Mechanical Engineering Design II: Emphasis in Mechatronics and Robotics and Controls (3) Group-A: Design-oriented electives** MEE 351 - Applied Thermodynamics (3) ↓ MEE 436 - Biomaterials (3) MEE 450 - Applied Thermodynamics (3)

Total Hours for a Major in Mechanical Engineering: 107-108 105

Emphasis 1: Advanced Computing and Simulation

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 18 of 124

Requirements in Department (65-66)

Same as required for major, in addition but with the following choices:

MEE 486C - Senior Mechanical Engineering Design II: Emphasis in Advanced Computing and Simulation (3)

At least two of the following four <mark>five</mark> courses:

MEE 381 - Computational Methods and Programming in Engineering Design (3) MEE 438 - Modeling Complex Systems (3)

↓

Total Hours for an Emphasis in Advance Computing and Simulation: 107-108 105

Emphasis 2: Mechatronics and Robotics <mark>and Controls</mark> Requirements in Department (66-67)

Same as required for major, in addition but with the following choices:

MEE 486M - Senior Mechanical Engineering Design II: Emphasis in Mechatronics and Robotics <mark>and Controls</mark> (3)

At least two of the following five six courses:

↓

Requirements outside Department (39)

Same as required for major.

Total Hours for an Emphasis in Mechatronics and Robotics <mark>and Controls</mark>: 107-108 105

Emphasis 3: Sustainable Energy Requirements in Department (66-67)

Same as required for major, in addition but with the following choices:

MEE 486E - Senior Mechanical Engineering Design II: Emphasis in Sustainable Energy (3) At least two of the following five seven courses:

MEE 450 – Applied Thermodynamics (3)

↓

Requirements outside Department (39)

Same as required for major.

Total Hours for an Emphasis in Sustainable Energy: 107-108 105

Rationale:

- Many years ago, when MEE 322 was taught only once per year and both courses were 4 credit hours, many MEE students took ELE 380 to satisfy the control systems requirement. The number of students doing that now is essentially zero. It is a disadvantage for students to do so. We are removing it from our requirements to simplify the listing in the catalog.
- The change makes explicit the fact that students may take any of the specialized versions of Senior Mechanical Engineering Design II and satisfy the requirements of the standard Mechanical Engineering degree.
- The "in addition" within the descriptions of the emphases are misleading. A reader might think we are requiring additional courses rather than imposing additional constraints on choices.
- Modeling Complex Systems is as applicable to the simulation emphasis as Robotics & Controls
- Adding the revised MEE 450 to Sustainable Energy emphasis where it now fits.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 19 of 124

• Various corrections to properly account for the number of courses and credits.

Course Revision: 2019-20 Undergraduate Catalog LINK CEET19.20.07.08

MEE 350. ENGINEERING THERMODYNAMICS (3). Principles of thermal energy conversion; properties of pure substance; work and heat; first law of thermodynamics, control volume, steady state and steady flow process, uniform state and uniform flow process; second law of thermodynamics, entropy, availability; power and refrigeration cycles. PRQ: MATH 232. CRQ: MEE 211.

Rationale: The topic of availability will be covered in revised MEE 351 course renamed as MEE 450 – Intermediate Thermodynamics.

Course Revision: LINK 2019-20 Undergraduate Catalog CEET19.20.07.09

MEE 351 450. APPLIED THERMODYNAMICS (3). Principles of exergy analysis; second-law efficiency of tThermodynamic cycles and processes; generalized thermodynamic relationships; mixtures and solutions; chemical reaction; phase and chemical equilibrium; overviews of contemporary applications utilizing engineering thermodynamics concepts, including power generation, sustainable energy management, and energy storage. nozzles, diffusers, and flowmeters. PRQ: MEE 350.

Rationale: We are taking a course that has been rarely taught and modernizing it so that the course fits better in the Sustainable Energy emphasis. The course has been moved to 400-level to better reflect the content and purpose of the course within the MEE curriculum as a design-related technical elective.

Course Revision: LINK 2019-20 Undergraduate Catalog CEET19.20.07.10

MEE 486. SENIOR MECHANICAL ENGINEERING DESIGN II (3). Execution of capstone design project under direct supervision of the instructor or other subject-matter expert. A writing-intensive course. Specific sections of the course are offered to students pursuing an emphasis in mechanical engineering. Offered in the spring. Students are expected to take MEE 485 the previous fall. PRQ: MEE 485.

C. Emphasis in Advanced Computing and Simulation

E. Emphasis in Sustainable Energy

M. Emphasis in Mechatronics and Robotics and Controls

Rationale: Revision reflects name change of the emphasis.

BIOMEDICAL ENGINEERING PROGRAM

Other Catalog Change LINK 2019-2020 Undergraduate Catalog

CEET19.20.08.01

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 20 of 124

Display programs for this school/college

v Undergraduate Programs

• Biomedical Engineering (B.S.)

Electrical Engineering (ELE)

* Major

- <u>Biomedical Engineering (B.S.)</u>
- <u>Electrical Engineering (B.S.)</u>

Bachelor of Science in Biomedical Engineering Curriculum (2020-21)

Biomedical Engineering (BME)

The B.S. in biomedical engineering will equip students with the basic competence and job skills needed to design, develop, and operate systems and devices in healthcare industry. These technologies include medical equipment and instruments, devices, computer systems, firmware, and software used in the ever-growing healthcare industry. The B.S. in biomedical engineering offers two tracks: biomechanics and biomaterials in Track 1, and biomedical instrumentation, sensors and signal processing in Track 2. Both tracks in biomedical engineering will equip students with the basic competence and job skills needed to design, develop, and operate biomedical systems and devices.

As a profession, biomedical engineering demands the individual to work with others in supporting disciplines to achieve common goals. Design is central to the biomedical engineering profession and is integrated throughout the curriculum. The work of biomedical engineers spans many professional careers, providing opportunities in research and development, quality assurance, as well as system and software design. The student is encouraged to approach central technical issues with increased awareness of logistical, ethical, and social implications. Respect for the safety of persons and property is integral to the biomedical engineering curriculum.

Mission

The mission of the biomedical engineering program is to join the university in its commitment to the transmission, expansion, and application of knowledge through teaching, research, and public service. In this commitment, the program features close interaction with area industries and fosters an ongoing exchange of ideas to benefit its students, alumni, and the community at large.

Biomedical Engineering Program Educational Objectives

A B.S. in biomedical engineering will equip students with cross-disciplinary knowledge and training in life sciences and medicine, training them to apply core engineering principles to analyzing and solving complex problems in the biomedical related fields. Graduates of this program are expected to have a solid background in mathematics, sciences, and engineering fundamentals as well as core biological sciences. Successful

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 21 of 124

completion of this program should enable the graduates with the ability to seamlessly transition between fields in identifying and solving problems pertinent to life sciences and medicine. The program curriculum will involve engaged teaching and learning as well as design experience through establishing a synergy between classroom and hands-on laboratory activities. This curriculum has an emphasis on creating, transmitting, expanding, and applying knowledge in the practice of biomedical engineering in a professional and ethical way, while preparing our graduates to succeed in the industry as well as preparing them for graduate education.

Program Learning Outcomes

The biomedical engineering programs are designed to provide our graduates with:

- 1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- 2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- 3. An ability to communicate effectively with a range of audiences.
- 4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- 5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- 6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- 7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Program Requirements

All biomedical engineering students must have their schedule reviewed, approved, and signed by their faculty adviser each semester. Any deviation from an approved course schedule may delay graduation.

Course Requirements

Students entering the biomedical engineering program complete the required course work within the program and outside of the program and complete three required courses and three electives from the list of preapproved courses, based on the track they choose.

Tracks in Biomedical Engineering Program

There are two tracks in the BME program:

- Track 1: Biomechanics and Biomaterials
- Track 2: Biomedical Instrumentation, Sensors and Signal Processing

Requirements in Program (20)

• BME 201 - Introduction to Biomedical Engineering Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 22 of 124

- BME 320 Biomedical Engineering Measurements Credits: 4
- BME 330 Biomechanics Credits: 3
- BME 336 Biomaterials Credits: 3
- BME 395 Biomedical Engineering Junior Design Credits: 1
- BME 495 Senior Biomedical Engineering Design I Credits: 3 BME 495 is a writing infused course.
- BME 496 Senior Biomedical Engineering Design II Credits: 3 BME 496 is a writing infused course.

Requirements outside Program (58-59)

- ELE 210 Engineering Circuit Analysis Credits: 3
- ELE 210U Engineering Circuit Laboratory Project Credits: 1
- ELE 315 Signals and Systems Credits: 3
- BIOS 208 Fundamentals of Cellular Biology Credits: 3
- BIOS 210 Fundamentals of Cellular Biology Laboratory Credits: 1
- BIOS 311 Functional Human Anatomy Credits: 4 OR BIOS 357 - Human Anatomy and Physiology Credits: 5
- CHEM 210 General Chemistry I Credits: 3
- CHEM 212 General Chemistry Laboratory I Credits: 1
- CHEM 310 Introductory Organic and Biological Chemistry Credits: 3
- CHEM 311 Introductory Organic and Biological Chemistry Laboratory Credits: 1
- CSCI 240 Computer Programming in C++ Credits: 4
- ISYE 335 Probability and Statistics for Engineers Credits: 3 OR STAT 300 - Introduction to Probability and Statistics Credits: 3
- MATH 229 Calculus I Credits: 4
- MATH 230 Calculus II Credits: 4
- MATH 232 Calculus III Credits: 4
- MATH 336 Ordinary Differential Equations Credits: 3
- MEE 209 Engineering Mechanics: Statics and Dynamics Credits: 4
- PHYS 253 Fundamentals of Physics I: Mechanics Credits: 4
- PHYS 273 Fundamentals of Physics II: Electromagnetism Credits: 4
- UEET 101/UEET 301 Introduction to Engineering Credits: 1

Preapproved elective courses

The list of preapproved elective courses (i.e., selective electives) beyond the required core BME courses for each of the BME tracks are as follows:

Track 1: Biomechanics and Biomaterials (18-20)

Required courses (9)

- BME 435 Biotransport Credits: 3
- BME 436 Advanced Biomaterials and Manufacturing Credits: 3
- MEE 340 Fluid Mechanics Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 23 of 124

Elective Courses (9-11)

- BME 420 Biomedical Instrumentation Design Credits: 4
- BME 421 Biomedical Sensor Engineering Credits: 3
- BME 425 Biomedical Signal Processing Credits: 3
- BME 437 Biomaterials Characterization Credits: 3
- BME 497 Independent Study Credits: 1-3
- BME 498 Special Topics Credits: 1-3
- BME 499 Honors Undergraduate Research Credits: 1-3
- ELE 380 Control Systems I Credits: 4
- MEE 427 PLC-based Robotics in Automated Systems Credits: 3

Track 2: Biomedical Instrumentation, Sensors and Signal Processing (19-22)

Required Courses (10)

- BME 420 Biomedical Instrumentation Design Credits: 4
- BME 421 Biomedical Sensor Engineering Credits: 3
- BME 425 Biomedical Signal Processing Credits: 3

Elective courses (9-12)

Choose at least 9 credit hours from the following:

- BME 435 Biotransport Credits: 3
- BME 436 Advanced Biomaterials and Manufacturing Credits: 3
- BME 437 Biomaterials Characterization Credits: 3
- BME 497 Independent Study Credits: 1-3
- BME 498 Special Topics Credits: 1-3
- BME 499 Honors Undergraduate Research Credits: 1-3
- ELE 250 Computer Engineering I Credits: 3
- ELE 250U Computer Engineering I Laboratory Credits: 1
- ELE 330 Electronic Circuits Credits: 4
- ELE 356 Computer Engineering II Credits: 4
- ELE 360 Communications Systems Credits: 4
- ELE 370 Engineering Electromagnetics Credits: 3
- ELE 380 Control Systems I Credits: 4
- ELE 430 Design with Field Programmable Logic Devices Credits: 3
- ELE 437 Hybrid Circuit Design Credits: 3
- ELE 438 Thin Film Engineering Credits: 3
- ELE 454 Introduction to Digital Image Processing Credits: 3
- MEE 340 Fluid Mechanics Credits: 3

Total Hours for a Major in Biomedical Engineering: 96-101

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 24 of 124

Rationale: The Biomedical Engineering (B.S.) program is multidisciplinary in nature with its own director under the CEET administration.

Course Revision: 2019-20 Undergraduate Catalog LINK CEET19.20.08.02

495. SENIOR BIOMEDICAL ENGINEERING DESIGN I (3).

Complete preparation of an engineering system design or project covering problem identification, conceptual design and analysis, prototyping, and the development of a work schedule required to carry out the project. Includes methodology, standards and safety codes, professional ethics, decision making, design evaluations, and oral and written communication. A writing-intensive course. Offered in the fall. Students are expected to take BME 496 the following spring. PRQ: BME 320, BME 330, BME 336, and BME 395 and consent of department.

Rationale: This course change reflects changes to pre-requisites of Biomedical Engineering Senior Design BME 495. BME 495 now feature new pre-requisite requirements to ensure that the students taking these classes have completed enough core course requirements that they could successfully execute their senior design project.

MECHATRONICS ENGINEERING PROGRAM

Other Catalog Change LINK 2019-2020 Undergraduate Catalog CEET19.20.08.03

Display programs for this school/college

Undergraduate Programs

• Mechatronics Engineering (B.S.)

Mechanical Engineering (MEE) \downarrow

Major

- <u>Mechanical Engineering (B.S.)</u>
- <u>Mechatronics Engineering (B.S.)</u>

Bachelor of Science in Mechatronics Engineering Curriculum (2020-21)

Mechatronics Engineering (MCTR)

The B.S. in mechatronics engineering will equip students with the basic competence and job skills needed to design, develop, and create smart machines that are aware of their surroundings and can make decisions. These smart machines are made of sensing and actuation, control systems, hardware and software. Such intelligent machines are ever evolving, while utilizing the internet of things, artificial intelligence, and cloud

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 25 of 124

technologies. Mechatronic engineers are revolutionizing consumer products by developing futuristic robots, drones, and vehicles.

As a profession, mechatronics engineering demands the individual to work with others in supporting disciplines to achieve common goals. Design is central to the mechatronics engineering profession and is integrated throughout the curriculum. The curriculum is based on a strong foundation of fundamental courses in sciences and engineering, and discipline-specific courses in mechatronics engineering. The work of mechatronics engineers spans many professional careers, providing opportunities in research and development, as well as system and software design. The student is encouraged to approach central technical issues with increased awareness of ethical, and social implications.

Mission

The mission of the program is to provide a high-quality, visionary engineering education that reflects professional engineering standards and prepares students to become engineers and leaders capable of solving technical challenges that industry and society face now and in the future; to conduct quality research by developing and/or applying engineering knowledge and tools to address society's technical needs and challenges; and to provide quality professional and public services to our communities.

Mechatronics Engineering Program Educational Objectives

A B.S. in mechatronics engineering will equip students with cross-disciplinary knowledge and training in electrical engineering, computer engineering, mechanical engineering, and control engineering, training them to apply core engineering principles to designing, analyzing and solving complex problems in the Mechatronics related fields. Graduates of this program are expected to have a solid background in mathematics, sciences, and engineering fundamentals. Successful completion of this program should enable the graduates with the ability to seamlessly transition between fields in identifying and solving complex engineering problems. The program curriculum will involve engaged teaching and learning as well as design experience through establishing a synergy between classroom and hands-on laboratory activities. This curriculum has an emphasis on creating, transmitting, expanding, and applying knowledge in the practice of mechatronics engineering in a professional and ethical way, while preparing our graduates to succeed in the industry as well as preparing them for graduate education.

Program Learning Outcomes

The mechatronics engineering programs are designed to provide our graduates with:

- 1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- 2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- 3. An ability to communicate effectively with a range of audiences.
- 4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 26 of 124

- 5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- 6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- 7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Program Requirements

All mechatronics engineering students must have their schedule reviewed, approved, and signed by their faculty adviser each semester. Any deviation from an approved course schedule may delay graduation.

Requirements in Program (18)

MCTR 210 – Programming in Mechatronics (3) MCTR 320 – Fundamentals of Mechatronics (3) MCTR 420 – Introduction to Robotics and Automation (3) MCTR 440 – Design of Mechatronic Systems (3) MCTR 481 – Mechatronics Engineering Senior Design I (3) MCTR 481 is a writing infused course MCTR 482 – Mechatronics Engineering Senior Design II (3)

MCTR 482 is a writing infused course

Four technical electives from the list below (12)

MCTR 421 – Human Machine Interaction Principles and Design (3) MCTR 422 – Servo Drives (3) MCTR 430 – Vision -Based Control (3) MCTR 497 – Independent Study (3) MCTR 498 – Special Topics (3) MEE 422 – Design of Robot Manipulators (3) MEE 425 – Design of Mobile Robots (3) MEE 427 – PLC-Based Robotics in Automated Systems (3) MEE 428 – Modeling Complex Systems (3) TECH 473 – Advanced Digital Design (3)

Requirements outside Program (76-77)

CSCI 240 – Computer Programming in C++ (4) ELE 210 – Engineering Circuit Analysis (3) ELE 210U – Engineering Circuit Laboratory Project (1) ELE 250 – Computer Engineering I (3), Or TECH 277 – Digital Logic Design (3) ELE 250U – Computer Engineering I Laboratory (1), Or TECH 277A – Digital Logic Design Laboratory (1) ELE 315 – Signals and Systems (3)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 27 of 124

ELE 330 – Electronic Circuits (4), Or TECH 276 – Electronics I (3) and TECH 276A – Electronics I Laboratory (1) ISYE 220 – Engineering Economy (3) ISYE 335 – Probability and Statistics for Engineers (3), Or STAT 350 – Introduction to Probability and Statistics (3) MEE 210 – Engineering Mechanics I (3) MEE 211 – Engineering Mechanics II (3) MEE 212 – Mechanics of Materials (3) Or MEE 340 - Fluid Mechanics (3) MEE 270 – Engineering Graphics (3) MEE 321 – Mechanical Vibrations I (3) MEE 322 – Dynamics Systems and Control I (3) Or ELE 380 – Control Systems I (4) MEE 380 – Computational Methods in Engineering Design (3) Or MEE 381 – Computational Methods and Programming in Engineering Design (3) MEE 421 – Dynamic Systems and Control II (3) MATH 229 – Calculus I (4) MATH 230 - Calculus II (4) MATH 232 – Calculus III (4) MATH 336 - Ordinary Differential Equations (3) PHYS 253 - Fundamentals of Physics I: Mechanics (4) PHYS 273 – Fundamentals of Physics II: Electromagnetism (4) **UEET 101 - Introduction to Engineering (1)** OR UEET 301 Transition to the Profession of Engineering (1) Total Required Hours for a Major in Mechatronics Engineering: 106-107

MCTR Course List:

Mechatronics (MCTR) Engineering Program

210. PROGRAMMING FOR MECHATRONICS (3). Computer programming, focused on mechatronics applications. Object oriented programming, analog-digital conversion, signal generation, elementary filtering algorithms, multi-threading, communication protocols, data logging and visualization. Development of microcontroller and single-board computer-based devices that interface with sensors, actuators, and the Internet. PRQ: CSCI 240.

320. FUNDAMENTALS OF MECHATRONICS (3). Basic knowledge and background for mechatronics systems, sensors and actuators, architecture and programming of microcontrollers, input/output interfacing, electric circuits and components, digital circuits, communication, data acquisition and measurement, basic concept of control, and case studies of mechatronics systems. PRQ: MCTR 110, MCTR 210.

420. INTRODUCTION TO ROBOTICS AND AUTOMATION (3). Configuration, dynamics, actuation,

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 28 of 124

sensing, and perception in different types of robots including manipulators and wheeled robots. Intelligent manufacturing and teleoperation. Human factors in automation. PRQ: MCTR 320. CRQ: MEE 322 OR ELE 380.

421. HUMAN MACHINE INTERACTION PRINCIPLES AND DESIGN (3). Design principles in Human-Computer interaction, Human-Robot interaction, Humanoid robots and exoskeleton control. PRQ: MCTR 420.

422. SERVO DRIVES (3). Study of electric drives used in servo systems. Development of electric motor models through an understanding of electromagnetic systems. Discussion of power electronic circuits used in motor drives. Analysis and control of motor drive systems typically used in servo applications. PRQ: ELE 315 and ELE 330; and either MEE 209 or MEE 211.

430. VISION-BASED CONTROL (3). Computer vision techniques for three-dimensional reconstruction; Camera models; epipolar geometry; camera calibration; visual serving, mobile and manipulator control using vision. PRQ: MCTR 420 and ELE 454.

440. DESIGN OF MECHATRONICS SYSTEMS (3). Systems level thinking for mechatronics frameworks and related design methodologies for integration of products and systems. Techniques for enabling mechatronic products and systems to meet requirements for their operation in real-time. Focus on reliability, safety, energy and environmental issues, ethics, and product liability. PRQ: MCTR 420.

481. MECHATRONICS ENGINEERING SENIOR DESIGN I (3). Complete preparation of an engineering system design or project covering problem identification, conceptual design and analysis, prototyping and the development of a work schedule required to carry out the project. Includes methodology, standards and safety codes, professional ethics, decision making, design evaluations, and oral and written communication. A writing intensive course. Offered in the fall. Students are expected to take MCTR 482 the following spring. PRQ: MCTR 320, MCTR 360. CRQ: MCTR 440.

482. MECHATRONICS ENGINEERING SENIOR DESIGN II (3). Execution of capstone design project under direct supervision of the instructor or other subject-matter expert. A writing intensive course. Specific sections of the course are offered to students pursuing an emphasis in mechanical engineering. Offered in the spring. Students are expected to take MCTR 481 the previous fall. PRQ: MCTR 481.

497. INDEPENDENT STUDY (1-3). Independent pursuit of problems in mechatronics engineering under faculty supervision. Written report required. May be repeated to a maximum of 3 semester hours. PRQ: Consent of department.

498. SPECIAL TOPICS (1-3). Topics not included in regular courses. May be repeated to a maximum of 9 semester hours, with no more than 3 semester hours in the same topic. PRQ: Senior Standing or Consent of department.

Total Hours for a Major in Mechatronics Engineering: 96-101

Rationale: The Mechatronics Engineering (B.S.) program is multidisciplinary in nature with its own director under the CEET administration.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 29 of 124

Course Revision Undergraduate Catalog 2019-20 LINK CEET19.20.08.07

TECH 437 – Fundamentals of Industrial Hygiene (3)

Application of principles of industrial (or occupational) hygiene for the safety specialist, whose role has been greatly expanded by legislation and current industry practices. Emphasis on recognition and evaluation of stress-producing conditions in the workplace including chemical exposure, noise, ventilation, temperature, radiation, lighting, and their effect on human performance and productivity.

Prerequisites & Notes

PRQ: CHEM 110, CHEM 111, TECH 231, TECH 415<mark>, and either both PHYS 150 and PHYS 151, or PHYS 210</mark>; or consent of department.

Credits: 3

Rationale: The addition of Physics is to ensure all students are properly prepared for the topics.

DEPARTMENT OF ENGINEERING TECHNOLOGY

Course Revision:

Undergraduate Catalog 2019-20

LINK CEET19.20.09.02

TECH - 477 - Engineering Technology Senior Design Project I (1)

Review and integration of all course work completed to define an individual or team project and conduct a preliminary design.

Prerequisites & Notes

PRQ: Senior standing; ENGL 308 or MGMT 346; and choose from one of the following sets of courses: either TECH 375 and TECH 376, and TECH 377; or TECH 369 and TECH 342 and TECH 391.

CRQ: TECH 342 for students pursuing Manufacturing Engineering Technology emphasis.

Credits: 1

Rationale: TECH 342 is required only for students pursuing Manufacturing Engineering Technology (MET) emphasis. MET students apply mechanical components designs taught in the first half of TECH 342 when they generate design concepts in the second half of TECH 477. Students will apply analytical techniques of mechanical design including finite element analysis taught in TECH 342 in TECH 478 that follows TECH 477. TECH 369 is deleted from prerequisite as it is redundant (TECH 369 is prerequisite of TECH 342).

COLLEGE OF HEALTH AND HUMAN SCIENCES

School of Family and Consumer Sciences

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 30 of 124

<u>Revision</u> LINK 2019-20 Undergraduate Catalog CHHS19.20.06.01

FSMD 272 - Merchandising Promotion

Study of merchandising promotion as it relates to the apparel and fashion industry with emphasis on coordination of forecasting, implementation of design principles in executing both physical and digital merchandise displays, and other promotional events. materials using industry software.

Prerequisites & Notes

PRQ: ART 102 or ARTH 282, or consent of school. Credits: 3

RATIONALE:

The course content has not changed. The new description more accurately reflects the current course content.

Revision LINK 2019-20 Undergraduate Catalog

CHHS19.20.06.02

Family and Consumer Sciences (FACS, FSMD, GERO, HDFS, HOSP)

GERO 365-Overview of Gerontology

Foundational concepts of aging and social gerontology. Examines classic and contemporary readings emphasizing the biopsychosocial aspects of aging from personal relationships to cultures, policies, financial aspects, programs for health improvement, and societal infrastructure.

Prerequisites & Notes

PRQ: Junior Sophomore standing or consent of program. Credits: 3 RATIONALE: Offering this course at sophomore level will give earlier exposure to students of a minor that

Offering this course at sophomore level will give earlier exposure to students of a minor that may compliment their area of primary study. This change will provide access to the course for students earlier in their academic year.

Other Catalog change LINK 2019-20 Undergraduate Catalog CHHS19.20.06.05

Requirements (18-19)

A degree-program student must apply to the gerontology program. Students must complete a minimum of 18 semester hours with at least 152 semester hours from the primary content area. Credit hours applied to satisfy the requirements for a major may be counted again as satisfying the requirements for this minor.

Primary Content Area (1<mark>2</mark>5-16)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 31 of 124

GERO 365 - Overview of Gerontology Credits: 3 HSCI 310 - Introduction to Health and Human Sciences Credits: 3

Three of the following (9-10)

GERO 366 - Health Aspects of Aging Credits: 3
OR GERO 369 - Dementia Studies Credits: 3
GERO 468- Leadership in Aging Services Credits: 3
OR PHHE 410 - Coping with Death, Dying, and Loss Credits: 3
HDFS 465 - Theories and Issues in Aging Studies Credits: 3
GERO 466 - Topics in Gerontology Credits: 3
Students may take this course for 3-6 semester hours.
May be repeated to a maximum of 6 semester hours.
Two of the following (6-7)
GERO 466 - Topics in Gerontology Credits: 3
Students may take this course for 3-6 semester hours.
May be repeated to a maximum of 6 semester hours.

GERO 467 - Fieldwork in Gerontology Credits: 3

May be repeated to a maximum of 6 semester hours. AND GERO 467A - Pre-practicum Seminar Credits: 1 GERO 468 - Leadership in Aging Services Credits: 3 HDFS 465 - Theories and Issues in Aging Studies Credits: 3

Choose from Other Courses Related to Gerontology (3)

BIOS 109 - Human Biology Credits: 3

Available for general education credit.

This is a nature and technology general education course for the Health and Wellness Pathway. HDFS 280 - Human Development, the Family, and Society Credits: 3 Available for general education credit.

OR PSYC 225 - Lifespan Development: Childhood Through Adulthood Credits: 3 Available for general education credit.

This is a society and culture general education course for the Learning Pathway.

OR HDFS 284 - Introduction to Family Relationships Credits: 3

HDFS 486 - Aging and the Family Credits: 3

KNPE 463 - Exercise and Physical Activity across the Lifespan Credits: 3

KNPE 463 also fulfills the Human Diversity Requirement.

NUTR 201 - Human Nutrition Credits: 3

Available for general education credit.

This is a nature and technology general education course for the Health and Wellness Pathway.

NUTR 428 - Nutrition and Aging Credits: 3

PHHE 410 - Coping with Death, Dying, and Loss Credits: 3

PHHE 433 - Principles of Long-Term Care Administration Credits: 3

PSYC 425 - Adult Development and Aging Credits: 3

SOCI 356 - Health, Aging, and Society Credits: 3

UHHS 301 - Independent Study in Health and Human Sciences Credits: 1-3

May be repeated to a maximum of 6 semester hours if topic changes.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 32 of 124

Students must take 3 semester hours in this course

Six or more semester hours in gerontology course work for the minor must be taken at NIU.

RATIONALE:

- 1. Change to 18 credit hours (12 in primary area) reflects consistency with other minor areas in the school. Also, the credit change reflects enough credits to have a solid foundation in gerontology.
- 2. Removal of HSCI 310 reflects movement of the minor into more specific gerontology courses.
- 3. Movement of "3 of the following" reflects a change in the way options were written in to the minor. For example, the new minor was conceptualized as a core set of classes with choice of 2 additional courses (which can be based on academic interest).
- 4. Forward placement of "GERO 366 OR GERO 369," "GERO 468 or PHHE 410," and "HDFS 465" reflects the idea these were conceptualized as core classes, with room allowed for some choice (depending on desired focus). Both GERO 365 and HDFS 465 address aging from a multi-disciplinary perspective, upon which individuals could build courses in their specialty, and thus were conceptualized as core courses.
- 5. Moved GERO 466 to elective, due to its limited availability.
- 6. Course choices kept and thus conceptualized were as follows: GERO 467, GERO 467A, HDFS 280 or Psych 225 or HDFS 284, HDFS 486, KNPE 463, NUTR 201, NUTR 428, PHHE 433, PYSC 425. Rational for this grouping was that after taking a core set of courses, the list offers enough choices for a variety of interests in the major area (e.g., approximately 2 courses). All of these courses were in the original minor.
- 7. Courses completely removed from the minor were as follows: BIOS 109, SOC 356, UHHS 3011. Removal of BIOS 109 reflects the movement of the minor into more specific GERO courses. Removal of SOC 356 reflects movement of the minor more fully into FACS. Removal of UHHS 301 reflects movement of the minor toward defined content.
- 8. Adding last sentence assures students will not complete minor solely on transfer credit.

Other Catalog change LINK 2019-20 Undergraduate catalog CHHS19.20.06.11 Public Health (B.S.)

↓ Major Requirements ↓ Emphasis 3. Environment and Health

Requirements outside School (28-31)

Two of the following (6-7)

- GEOG 256 Maps and Mapping Credits: 3 Available for general education credit.
- GEOG 302 Soil Science Credits: 4
- GEOG 303 Water Resources and the Environment Credits: 3 Available for general education credit.
- GEOG 382 Geography of Disease and Health Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 33 of 124

• GEOG 432 - GIS for Public and Environmental Health Credits: 3

RATIONALE:

We are adding GEOG 382, Geography of Disease and Health, to our existing Geography course options to give students more course options to meet the Geography Physical Science requirement within the Environment and Health Emphasis. This course, like the others listed in this category, sufficiently prepares Public Health students to work in the field of Environment and Health.

School of Family and Consumer Sciences

Course Revision LINK, 2019-20 Undergraduate Catalog CHHS19.20.07.08

HDFS 399 – Professional Orientation: Issues and Trends in Working with Young Children and Their Families Child Development Laboratory. A prepracticum seminar, which focuses on preparation of pre-service professionals in early childhood settings. Familiarity with health and safety regulatory guidelines within childcare as defined by the Illinois Department of Children and Family Services licensing regulations. Professional issues and conduct are reviewed as defined by the National Association for the Education of Young Children standards and criteria. Includes CPR and First Aid training requirements. Examines contemporary issues and trends that are influencing the field of early childhood care and education. Emphasis is on systematic analysis of key developments in policies, initiatives, and practices that shape the profession, such as licensing, accreditation, and health and safety practices.

Prerequisites & Notes

PRQ: HDFS 230 or EPS 304 or PSYC 324. Credits: 3 RATIONALE: The new title reflects the broad professional orientation of the entire field of working with young children and their families in the Child Development and Family Center instead of the Child Development Laboratory, that no longer exists.

The new course description aligns with the proposed title and content changes of the course.

Course Revision LINK 2019-20 Undergraduate Catalog CHHS19.20.07.09

HDFS 490 - Practicum in Infant and Child Development Laboratories

Supervised on-campus practicum in child development. Opportunities for planning and supervising inclusive programs for infants and children of diverse backgrounds and abilities, up to 7 years of age. No more than 15 semester hours from field experiences in HDFS 393 and HDFS 490 may be applied toward graduation.

Prerequisites & Notes

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 34 of 124

PRQ: HDFS 399498 and see emphasis 3, child development, special requirements.

Credits: 127

RATIONALE:

1. HDFS 498 to HDFS 399 is to reflect the change in course number last year.

2. Reduced the number of credit hours for HDFS 490 from 12 to 7 hours to allow students to take the new field experience courses for early hands on learning.

This change corresponds with the additional lab experiences acquired through the completion of HDFS 330A, 331A, and 332A.

Course Revision LINK 2019-20 Undergraduate Catalog CHHS19.20.07.10

HDFS 481-PROFESSIONAL PRACTICES IN FAMILY SOCIAL SERVICES

Introduction to typical community family social service agencies. Includes internal function and structures and networking with other agencies, the role of the intern and entry-level worker, selected legislative statutes which relate to clients, and ethical behavior of employees and interns.

Prerequisites and Notes:

PRQ: HDFS major and HDFS 180 and HDFS 280 and HDFS 284<mark>; and consent of school</mark>. Credits: 3

RATIONALE:

This provides the opportunity to track students into this key FSS course.

Course Revision LINK, 2019-20 Undergraduate Catalog CHHS19.20.07.11

Family and Consumer Sciences (FACS, FSMD, GERO, HDFS, HOSP)

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FSMD 353-Apparel Products Analysis

Analysis of the principles and elements of creative and technical design for the ready-to-wear market. Examination-Identification of factors that influence quality, selection, and use of apparel products including fiber and fabric analysis. shaping methods, materials, sizing, assembly, costing, and quality.

Prerequisites & Notes

PRQ: FSMD 152 with a grade of C or better, FSMD 258 with a grade of C or better, and ART 102 or ARTH 282; and CHEM 110 and CHEM 111.

Credits: 3

RATIONALE:

Course content has not changed. The new description update provides contemporary terminology.

Course Revision LINK 2019-20 Undergraduate Catalog CHHS19.20.07.12

Family and Consumer Sciences (FACS, FSMD, GERO, HDFS, HOSP)

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FSMD 355 Merchandising Mathematics

Application of mathematical Fashion merchandising concepts and calculations in fashion merchandising to meet consumer demand and maximize profits. Development of merchandise

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 35 of 124

plans, including sales, inventories, purchases, assortments, pricing, markups, and markdowns. Calculation of gross margin and return on investment.

Prerequisites & Notes

PRQ: FSMD 152 with a grade of C or better and FSMD 258 with a grade of C or better; and MATH 210 or MATH 211 or MATH 229.

Credits: 3

RATIONALE:

Course content has not changed. The new description clarifies the content in the course. <u>Other catalog change</u> <u>LINK</u>, 2019-20 **Undergraduate Catalog** <u>CHHS19.20.07.13</u>

Emphasis 3. Child Development

↓ Special Requirements

- completion of HDFS 230, HDFS 330, HDFS 330A, HDFS 331, HDFS 331A, HDFS 332, HDFS 332A, and HDFS 399 (with a C or better), and HDFS 432.

Students must complete HDFS 490 with a grade of C or better. Students electing the study area of parent/infant or child life specialist must have taken HDFS 439 or be concurrently enrolled in it when taking HDFS 490. Students not meeting the requirements for entry into the practicum or internship may, with the consent of the school, change to the emphasis in family and individual development in order to complete graduation requirements.

HDFS 494 is designed only for students who are pursuing the Illinois Gateways Director Credential Certificate level 2.

RATIONALE:

Change reflects additional special requirements of the addition to HDFS 330A, HDFS 331A, and HDFS 332A as program requirements.

HDFS 494 is in alignment for requirements for Illinois Gateways Director Credential Certificate level 2.

Other catalog change LINK, 2019-20 Undergraduate Catalog CHHS19.20.07.14

Human Development and Family Sciences, Comprehensive Major (B.S.)

Emphasis 3. Child Development

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Requirements in School (52-602)

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HDFS 330 - Principles of Guiding Young Children Credits: 3

HDFS 330A-Lab Experience in Principles of Guiding Young Children Credits: 1

HDFS 331 - Inclusive Program Planning for Infants, Toddlers, and Their Parents Credits: 3 HDFS 331A - Practicum in Early Childhood Studies: Infants and Toddlers Credits: 1

HDFS 332 - Inclusive Program Planning for Children 3-8 Years of Age and Their Parents Credits: 3

HDFS 332A-Lab Experience in Inclusive Program Planning for Children 3-8 Years of Age and Their Parents Credits: 1

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 36 of 124

Parent/Infant Specialist (912)

HDFS 439 - Infant Development in the Family: Typical and Atypical Credits: 3 HDFS 441 Infant and Child Mental Health and Resiliency Credits: 3

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- Leadership Studies (9<mark>-12</mark>)
- HDFS 434 Administration and Supervision of Quality Programs for Young Children from Diverse Backgrounds Credits: 3

HDFS 438- Parent Education Credits: 3

HDFS 384 - Asian American Families Credits: 3

- HDFS 384 also fulfills the Human Diversity Requirement.
 - OR HDFS 483 Social Policy, Children and Families Credits: 3

OR HDFS 445 - Management of Human and Family Resources Credits: 3

HDFS 445 is a Writing Infused Course.

OR HDFS 494 Practicum in Administration of Quality Programs for Young Children Credits: 5-6

- OR HDFS 488 Working with Ethnically Diverse Children and Families in the U.S. Credits:3 HDFS 488 also fulfills the Human Diversity Requirement.
- OR NUTR 405 Child Health and Nutrition Credits: 3

HDFS 434 - Administration and Supervision of Quality Programs for Young Children from Diverse Backgrounds Credits: 3

HDFS 445 - Management of Human and Family Resources Credits: 3

HDFS 445 is a Writing Infused Course.

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Total Hours for Emphasis 3, Child Development: 66-67<mark>-78</mark> RATIONALE:

- 1. Reflect the change of credit hours for the Child Development emphasis
- 2. Adding HDFS 330A to the requirement- provides early hands on learning experience in guidance. Provide opportunities to apply developmentally appropriate guidance practice early in the curriculum allows students to practice in an authentic setting.
- 3. Adding HDFS 331A to the requirement- provides early hands on learning experience in planning and implementing developmentally appropriate activities for infants, toddlers, and their parents
- 4. Adding HDFS 332A to the requirement- provides early hands on learning experience in planning and implementing developmentally appropriate activities for children ages 3-8 years and their parents
- 5. Adding HDFS 441 to parent/infant specialist sub-emphasis-reflects the new area of research in early childhood focuses on mental health and brain development of the very young. A clear understanding of infant mental health will significantly assist child development students in serving family and children effectively. In addition, it will help children and families build resiliency during traumatic experiences.
- 6. The credit hour change reflects the revision of the curriculum for Leadership Studies and Parent/Infant Specialist.
- 7. Removing HDFS 384 and 488 from the Leadership Studies curriculum. They have been moved previously to the core requirements for all Child Development students.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 37 of 124

- 8. Moving HDFS 445 to be an option rather than required for the students. The specific content for Director Credential will be included in HDFS 494.
- 9. Adding HDFS 438- provides students the essential skills to support parents. It also meets the competency requirement for IL Director Credential.
- 10. Adding HDFS 494 to the course list for students who are pursuing IL Director Credential. The course provides needed clinical hours required by IL Gateways. Move HDFS 434 to the top of the list in Leadership Studies so classes go in chronological order.

Other catalog change LINK, 2019-20 Undergraduate Catalog CHHS19.20.07.16 In addition:

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Child Development

HDFS 490 - Practicum in Infant and Child Development Laboratories Credits: 127

Emphasis 3. Child Development

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Requirements in School (60)

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HDFS 432 - Theories of Child Development Credits: 3

HDFS 482 - Child Abuse and Neglect Credits: 3

HDFS 490 - Practicum in Infant and Child Development Laboratories Credits: 127 Students must take 127 semester hours in this course.

RATIONALE:

The new title reflects the broad professional orientation of the entire field of working with young children and their families in the Child Development and Family Center instead of the Child Development Laboratory, that no longer exists.

Reduced the number of credit hours for HDFS 490 from 12 to 7 hours to allow students to take the new field experience courses for early hands on learning.

Other catalog change LINK, 2019-20 Undergraduate catalog CHHS19.20.07.17

Illinois Early Childhood Education (ECE) Credential Certificate-Levels 2-5 (15-4237) ↓

Core Course for Level 4 (394)

- HDFS 488 Working with Ethnically Diverse Children and Families in the U.S. Credits: 3
- HDFS 490 Practicum in Infant and Child Development Laboratories Credits: 12-7
- <u>NUTR 405 Child Health and Nutrition</u> Credits: 3

Completion of 50 hours of approved community service in a child development agency Core Course for Level 5 (4237)

- HDFS 432 Theories of Child Development Credits: 3
- HDFS 488 Working with Ethnically Diverse Children and Families in the U.S. Credits: 3
- HDFS 490 Practicum in Infant and Child Development Laboratories Credits: 12-7
- <u>NUTR 405 Child Health and Nutrition</u> Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 38 of 124

Completion of 50 hours of approved community service in a child development agency RATIONALE:

Reduced the number of credit hours for HDFS 490 from 12 to 7 hours to allow students to take the new field experience courses for early on hands on learning.

The new credit hours still meet the Gateway Credential requirements for the ECE levels 3-5.

Other catalog change LINK, 2019-20 Undergraduate Catalog CHHS19.20.07.18 Family and Consumer Sciences (FACS, FSMD, GERO, HDFS, HOSP)

Certificate of Undergraduate Study

- Illinois Director Credential Certificate Level 2 (15)
- Illinois Early Childhood Education (ECE) Credential Certificate-Levels 2-5 (15-42)
- Infant Toddler Credential Certificate Levels 2- 5 (424-34)
- Leadership in Aging Services (15)

<mark>(New page from hyperlink above)</mark> Infant Toddler Credential Certificate – Level<mark>s 2-</mark> 5 (12<mark>4-34</mark>)

This certificate is designed to meet the standards for the Infant Toddler Credential (ITC) (Level<mark>s 2-</mark>5) of the Illinois Network of Child Care Resource & Referral Agencies (INCCRRA).

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Applicants for the ITC certificate must hold a bachelor's degree in a child-related major and must meet INCCRRA Early Childhood Education (ECE) credential requirements for Level 5. To earn the certificate, students must maintain a good academic standing in the university, achieve a minimum grade of C in each certificate course, achieve a GPA of 2.50 in all certificate courses, and complete all certificate course work within five academic years.

Core Course for Level 2 (24)

HDFS 230- Child Development Credits: 3

HDFS 231- An Observational Approach to the Study and Assessment of Young Children Credits: 3

HDFS 280- Human Development, the Family, and Society Credits: 3

HDFS 284- Introduction to Family Relationships Credits: 3

HDFS 330- Principles of Guiding Young Children Credits: 3

HDFS 331- Inclusive Program Planning for Infants, Toddlers, and Their Parents Credits: 3

HDFS 399- Orientation in Child Development Laboratory Credits: 3

HDFS 437- Parent-Child Interaction from Birth to Age 8 Years Credits: 3

Core Course for Level 3 (27)

HDFS 230- Child Development Credits: 3

HDFS 231- An Observational Approach to the Study and Assessment of Young Children Credits: 3

HDFS 280- Human Development, the Family, and Society Credits: 3

HDFS 284- Introduction to Family Relationships Credits: 3

HDFS 330- Principles of Guiding Young Children Credits: 3

HDFS 331- Inclusive Program Planning for Infants, Toddlers, and Their Parents Credits: 3

HDFS 399- Orientation in Child Development Laboratory Credits: 3

HDFS 432- Theories of Child Development Credits: 3

HDFS 437- Parent-Child Interaction from Birth to Age 8 Years Credits: 3

p. 39 of 124 **SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog**

Core Course for Level 4 (37)

HDFS 230- Child Development Credits: 3

HDFS 231- An Observational Approach to the Study and Assessment of Young Children Credits: 3 HDFS 280- Human Development, the Family, and Society Credits: 3 HDFS 284- Introduction to Family Relationships Credits: 3 HDFS 330- Principles of Guiding Young Children Credits: 3 HDFS 331- Inclusive Program Planning for Infants, Toddlers, and Their Parents Credits: 3 HDFS 399- Orientation in Child Development Laboratory Credits: 3 HDFS 432- Theories of Child Development Credits: 3 HDFS 437- Parent-Child Interaction from Birth to Age 8 Years Credits: 3 HDFS 439- Infant Development in the Family: Typical and Atypical Credits: 3 HDFS 490- Practicum in Infant and Child Development Credits: 7 Core eCourses for level 5 (1237)

HDFS 230- Child Development Credits: 3

HDFS 231- An Observational Approach to the Study and Assessment of Young Children Credits: 3

HDFS 280- Human Development, the Family, and Society Credits: 3

HDFS 284- Introduction to Family Relationships Credits: 3

HDFS 330- Principles of Guiding Young Children Credits: 3

HDFS 331 - Inclusive Program Planning for Infants, Toddlers, and Their Parents Credits: 3

HDFS 393 - Cooperative Education II for Child Development Credits: 1-3

Students must take this course for 3 semester hours.

HDFS 399- Orientation in Child Development Laboratory Credits: 3

HDFS 432- Theories of Child Development Credits: 3

HDFS 437 - Parent-Child Interaction From Birth to 8 Years Credits: 3

HDFS 439 - Infant Development in the Family: Typical and Atypical Credits: 3

HDFS 490- Practicum in Infant and Child Development Credits: 7

RATIONALE:

NIU Child Development is an entitled program through Gateways Illinois. This document lists the course required for students to receive Infant Toddler Credential Levels 2-5 via Gateways. Reflect program's receiving of the newly approved certificate by Illinois Network of Child Care Resource and Referral Agencies (INCCRRA).

HDFS 393 no longer required for Infant Toddler credential levels 2-5.

School of Health Studies

Other catalog change LINK, 2019-20 Undergraduate catalog CHHS19.20.07.24

Description to be used in the catalog: Nursing (NURS) **General Information**

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 40 of 124

↓ R.N.-B.S. in Nursing Completion Option

Registered nurses who graduated within the past five years from a nursing program will automatically be granted the appropriate number of escrow credits provided they have practiced as a registered nurse within the past five years. Registered nurses who graduated more than five years ago who have not practiced as a registered nurse within the past five years will need to provide evidence of a refresher course. RNs who must take a refresher course may be provisionally admitted to the nursing program. Students who are provisionally admitted to the RN-B.S. option may only take NURS 463 once fully admitted., but may only complete a maximum of 6 credit hours until fully admitted. In order to receive a baccalaureate degree, the R.N.-B.S. completion student is required to complete the following courses with a grade of C or better: NURS 306, NURS 308, NURS 312, NURS 347, NURS 408, NURS 419, NURS 425, NURS 432, NURS 435, NURS 463, and NURS 488.

RATIONALE: To prevent a student from taking the capstone course until fully admitted to the nursing program.

Other catalog change LINK 2019-20 Undergraduate Catalog CHHS19.20.07.25 Limited Admissions Requirements

> Nursing Major ↓

Registered Nurses

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Registered nurses are restricted to completion of no more than 6 semester hours of NIU nursing courses prior to admission to the nursing program. Students in the RN-B.S. option may not take NURS 463 until fully admitted to the nursing program. Applicants new to the university should submit an application through the Office of Admissions and continuing NIU students should submit an application to the nursing program.

School of Health Studies

Course Revision 2019-20 Undergraduate Catalog LINK CHHS19.20.08.03

AHLS 337 - Medical Diagnostic Microbiology Laboratory Practical laboratory application of theory and analytical techniques related to the clinical microbiology lectures. Includes manual procedures for the identification and assessment of pathogenic microorganisms in the clinical laboratory. Clinical specimens utilized in laboratory.

Prerequisites & Notes CRQ: AHLS 336. Credits: 1 2

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 41 of 124

RATIONALE:

This course currently includes mycology, but with the creation of the new course, AHLS 335: Medical Diagnostic Mycology and Parasitology, the mycology content will be removed from AHLS 337. This results in a reduction of content in AHLS 337, justifying a corresponding reduction in credit hours

Other Catalog Change 2019-20 Undergraduate Catalog LINK CHHS19.20.08.04

Major in Medical Laboratory Sciences (B.S.) ↓ Requirements in School (47-59) ↓

AHLS 337 - Medical Diagnostic Microbiology Laboratory Credits: <mark>1</mark> 2

RATIONALE:

This course currently includes mycology, but with the creation of the new course, AHLS 335: Medical Diagnostic Mycology and Parasitology, the mycology content will be removed from AHLS 337. This results in a reduction of content in AHLS 337, justifying a corresponding reduction in credit hours.

The change here reflects the change made in the REVISION AHLS 337 document submitted to HHS Meeting #6.

Course Deletion 2019-20 Undergraduate Catalog LINK CHHS19.20.08.09

Health Studies

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AHLS 446 - Principles of Laboratory Management and Practice

Expansion of skills of the clinical laboratorian who is an expert in the technical and professional operations of the laboratory to include expertise necessary for administrative and management roles for the laboratory. Didactic and practical experiences both in the classroom and via off-campus activities.

Credits: 1

RATIONALE: AHLS 446 - Principles of Laboratory Management and Practice will no longer be offered with the new AHLS 450- Laboratory Management Principles and Processes course replacing AHLS 446.

Other Catalog Change 2019-20 Undergraduate Catalog LINK CHHS19.20.08.10

Medical Laboratory Sciences (B.S.)

B.S. Degree Completion for Clinical/Medical Laboratory Technicians

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 42 of 124

Clinical or medical laboratory technicians ... Once formally admitted into the major, students must complete the following courses with a grade of C or better: HSCI 318, AHLS 301, AHLS 302, AHLS 303, AHLS 308, AHLS 336, AHLS 344, AHLS 440 or AHLS 446, HSCI 460; and satisfactory performance in AHLS 475....

Requirements in School (47-59)

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AHLS 446 – Principles of Laboratory Management and Practice Credits: 1 AHLS 446 is a writing infused course.

RATIONALE:

AHLS 446 - Principles of Laboratory Management and Practice will no longer be offered with the new AHLS 450- Laboratory Management Principles and Processes course replacing AHLS 446.

COLLEGE OF LIBERAL ARTS AND SCIENCES

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.01

College of Liberal Arts and Sciences

College Requirement for the B.S. Degree
↓
Group C. Lab Sciences
*BIOS 103 - General Biology (3)
AND *BIOS 105 - General Biology Laboratory (1)
↓
*GEOG 256 - Maps and Mapping (3)
GEOG 302 - Soil Science (4 3)
GEOG 359 - Introduction to Geography Information Systems (3)
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Rationale: Change in credit hours for GEOG 302.

Department of Biological Sciences

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.02</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

BIOS 301X - The Interdisciplinary Secondary Science Teacher Crosslisted as CHEM 301X, GEOL 301, and PHYS 301X. Seminar on the and uses of technology.
Prerequisites & Notes
PRQ: Consent of department. CRQ: BIOS 402 414X and ILAS 301. Credits: 1

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 43 of 124

Rationale: Change in course number from BIOS 402X to BIOS 414X.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.03</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

BIOS 401 - Third Clinical High School/Middle School Experience in Biology
Discipline-based early clinical hours of supervised and formally evaluated experiences.
Prerequisites & Notes
PRQ: Consent of department. CRQ: BIOS 403 416.
Credits: 2

Rationale: Change in course number from BIOS 403 to BIOS 416.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.04</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

BIOS 402 414X - Interdisciplinary Teaching of Science in Secondary and Middle Level Education *Crosslisted as CHEM* 493 414X, *ENVS* 483 414X, *GEOL* 483 414, and PHYS 493 414X. Methods and theory for the teaching of and ongoing development of a professional portfolio. **Prerequisites & Notes** PRQ: Consent of department. Credits: 3

Rationale: Change in course number for the parent course, GEOL 483 to GEOL 414. Please see that course revision for full rationale.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.05</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

BIOS 403 416 - Methods in Teaching Biology

PRQ: Minimum overall GPA of 2.70 in all applicable biology, minimum GPA of 3.00. Credits: 3

Rationale: The course numbers are changing in order to: **1**) Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. **2**) Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 44 of 124

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.06</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

BIOS 409X - Water Quality

Crosslisted as ENVS 409, GEOL 409X, and PHHE 409X. Survey of and a field trip. **Prerequisites & Notes** PRQ: CHEM 110 and CHEM 111 or CHEM 210 and CHEM 212; or consent of the department. Credits: 4

Rationale: Change in PRQ for parent course, ENVS 409. This change allows students who test directly into 200-level chemistry to enroll in the course without the assistance of the department.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.07</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

BIOS 484 403X - Science Across Time and Culture The Nature of Scientific Inquiry Crosslisted as CHEM 400 403X, ENVS 475 403X, GEOL 475 403, and PHYS 400 403X. Examination of major concepts of science and how they evolved as a body of knowledge, a process, and a way of knowing and thinking. Comparison and contrast of the role and practice of science in various cultures and examination of the interaction between science, technology, and culture. Development of an understanding of scientific inquiry and its role in the secondary and middle school science classroom. Prerequisites & Notes

PRQ: CEOL 120 and CEOL 121, or cConsent of department. Credits: 2

Rationale: Change in course number for the parent course, GEOL 475 to GEOL 403. Please see that course revision for full rationale.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.08</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

BIOS 485 428 - Student Teaching (Secondary) in Biology Student teaching in the discipline Not available for credit in the major. **Prerequisites & Notes** PRQ: BIOS 400 with a grade of C or better and consent of department. Credits: 10 12

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 45 of 124

Rationale: The course numbers are changing in order to: 1) Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. 2) Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$. **3)** We are eliminating the "Transition to Professional Teaching" course (BIOS 486/CHEM 496/ENVS 482/GEOL 482/PHYS 496) from the program and increasing the total credits for our student teaching class (BIOS 485/ CHEM 497/ENVS 487/GEOL 487/PHYS 497) in order to: a) Reduce the total number of classes our students need to take. The material currently covered in the Transitions course class will be integrated into the student teaching experience. As a result, we are proposing the total number of credits increase from 10 to 12 for our student teaching class. Also, the total credits need to be at least 12 in order for our UGD students to qualify for the financial aid assistance and insurance coverage offered to full-time students. **b)** Align our program with the industry standard. Virtually every teacher prep program in the state of IL requires one class during the student teaching semester. Based on conversations with prospective students, program advisors feel requiring two classes gives the impression our program is more work and more expensive than programs at other institutions. This potentially makes our program less attractive to prospective students.

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

Course Revision

2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.09</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

BIOS 486 - Transition to the Professional Biology Teacher Transitioning experience in which a professional development plan, and a resume. **Prerequisites & Notes** PRQ: Consent of department. CRQ: BIOS 485 428. Credits: 2

Rational: Change in course number from BIOS 485 to BIOS 428.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.11

Educator Licensure - Biology

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Professional Development Phase and Student Teaching

The state of Illinois requires a minimum of 100 clock hours of relevant early clinical experiences prior to student teaching. This requirement may be satisfied by successfully completing the following courses.

• BIOS 401 - Third Clinical High School/Middle School Experience in Biology Credits: 2

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 46 of 124

- ILAS 201 Introductory Clinical Experience Credits: 1
- ILAS 301 Second Clinical Experience Credits: 1

Students must satisfactorily complete a series of discipline-based pedagogy course work.

- BIOS 402 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
- BIOS 403 416 Methods in Teaching Biology Credits: 3
- BIOS 485 428 Student Teaching (Secondary) in Biology Credits: 40 12
- BIOS 486 Transition to the Professional Biology Teacher Credits: 2
- ETT 402 Teaching and Learning with Technology Credits: 3

Rationale: Revisions to course numbers and titles.

Department of Chemistry

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.13</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

CHEM 401 - Third Clinical High School/Middle School Experience in Chemistry Discipline-based early clinical hours of supervised and formally evaluated experiences. **Prerequisites & Notes** PRQ: Consent of department. CRQ: CHEM 495 416X. Credits: 2

Rationale: Change in course number for CHEM 495X to CHEM 416X.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.14</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

CHEM 490 403X - Science Across Time and Culture The Nature of Scientific Inquiry Crosslisted as BIOS 484 403X, ENVS 475 403X, GEOL 475 403, and PHYS 490 403X. Examination of major concepts of science and how they evolved as a body of knowledge, a process, and a way of knowing and thinking. Comparison and contrast of the role and practice of science in various cultures and examination of the interaction between science, technology, and culture. Development of an understanding of scientific inquiry and its role in the secondary and middle school science classroom. Prerequisites & Notes

PRQ: GEOL 120 and GEOL 121, or eConsent of department. Credits: 2

Rationale: Change in course number for the parent course, GEOL 475 to GEOL 403. Please see that course revision for full rationale.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 47 of 124

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.15</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

CHEM 493 414X - Interdisciplinary Teaching of Science in Secondary and Middle Level Education Crosslisted as BIOS 402 414X, ENVS 483 414X, GEOL 483 414, and PHYS 493 414X. Methods and theory for the teaching of and ongoing development of a professional portfolio. **Prerequisites & Notes** PRQ: Consent of department. Credits: 3

Rationale: Change in course number for the parent course, GEOL 483 to GEOL 414. Please see that course revision for full rationale.

Course Revision	2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) CLAS19.20.07.16
	2019-20 Online Undergraduate Catalog LINK (Course Desc)

CHEM 494 - Use of Technology in Curriculum Development and Chemistry Teaching Use of web-based teaming including ILAS 300 and/or ILAS 401, and CHEM 497 428. **Prerequisites & Notes** PRQ: Consent of department. CRQ: CHEM 301X and ILAS 301. Credits: 3

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.17</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

CHEM 495 416X - Methods in Teaching of Physical Sciences Crosslisted as GEOL 495 416X and PHYS 495 416. Preparation for licensure teaching science to the exceptional child; reading and the teaching of science; methods of evaluation. **Prerequisites & Notes** PRQ: Consent of department. CRQ: CHEM 401 or GEOL 401 or PHYS 401. Credits: 3

Rationale: Change in course number for the parent course, PHYS 495 to PHYS 416. Please see that course revision for full rationale.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.18</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

CHEM 496 - Transition to the Professional Chemistry Teacher A transitioning experience in which professional development plan, and a resume.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 48 of 124

Prerequisites & Notes

CRQ: CHEM 497 <mark>428</mark> or consent of department. Credits: 2

Rationale: Change in course number for CHEM 497 to CHEM 428.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.19</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

CHEM 497 428 - Student Teaching (Secondary) in Chemistry/Physical Sciences Student teaching for a minimum Not available for credit in the major. **Prerequisites & Notes** PRQ: CHEM 495 416X and consent of department. Credits: 49 12

Rationale: The course numbers are changing in order to: 1) Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. 2) Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$. **3)** We are eliminating the "Transition to Professional Teaching" course (BIOS 486/CHEM 496/ENVS 482/GEOL 482/PHYS 496) from the program and increasing the total credits for our student teaching class (BIOS 485/ CHEM 497/ENVS 487/GEOL 487/PHYS 497) in order to: a) Reduce the total number of classes our students need to take. The material currently covered in the Transitions course class will be integrated into the student teaching experience. As a result, we are proposing the total number of credits increase from 10 to 12 for our student teaching class. Also, the total credits need to be at least 12 in order for our UGD students to qualify for the financial aid assistance and insurance coverage offered to full-time students. **b)** Align our program with the industry standard. Virtually every teacher prep program in the state of IL requires one class during the student teaching semester. Based on conversations with prospective students, program advisors feel requiring two classes gives the impression our program is more work and more expensive than programs at other institutions. This potentially makes our program less attractive to prospective students. 4) Change in course number for the PRQ CHEM 495 to 416X.

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.24

Chemistry (B.S.) ↓ Emphasis 1. Chemistry ↓

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 49 of 124

Requirements in Department (43-44)

Electives chosen with the advice of the chemistry faculty (3-4)

Electives chosen with the advice of the chemistry faculty from 400-level classes excluding classes numbered 428 and 490 to 497 496, or an appropriate advanced course in mathematics, statistics, or natural sciences physics (3-4).

Requirements outside Department (22-26 19-23)

- ENGL 350 Writing Across the Curriculum Credits: 3 ENGL 350 is a writing infused course.
- MATH 229 Calculus I Credits: 4 Available for general education credit.
 - AND MATH 230 Calculus II Credits: 4

Recommendations

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Students should meet with a departmental adviser to determine the appropriate electives for their program of study.

FLGE 101 Beginning German I: Personal World Credits: 3

On AND FLGE 102 - Beginning German II: The German-Speaking World Credits: 3

- OR FLRU 101 Beginning Russian I Credits: 3
- -AND FLRU 102 Beginning Russian II Credits: 3
- MATH 334 Foundations of Applied Mathematics Credits: 4

Students interested in forensic science are encouraged to take at least one of the following. ↓

Total Hours for Emphasis 1, Chemistry: 65-70 62-67

Rationale: 1) Upper-level statistics classes such as STAT 300 have long been considered in this category. Explicit mention of Statistics (currently a division within the department of Mathematics) will make it clear that statistics classes qualify, particularly if the division becomes a separate department in the future. Depending on student interests, an advanced elective in any natural science may be appropriate for this elective. **2)** Students in Emphasis 1 are already required to take two other writing-infused classes for their majors. Removing ENGL 350 as a requirement for graduation will increase the choices available to students for completing their university requirements. Total hours for outside department and emphasis 1 have been updated. **3)** Recommended elective lists have been in the catalog for a long time, and are somewhat out of date (at least one class is very rarely taught). The needs of students have also changed over the years; for example, Russian is no longer a high priority for study for chemists. It is more appropriate to suggest that students pick electives appropriate for their interests in consultation with their advisors. Removing these lists also declutters the catalog.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.25

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 50 of 124

Chemistry (B.S.) **Emphasis 2. Biochemistry** Requirements outside Department (27-30-33) **BIOS 208 - Fundamentals of Biology I Credits: 3** • AND BIOS 210 - Fundamentals of Biology I Laboratory Credits: 1 BIOS 209 - Fundamentals of Organismal Biology Credits: 3 • • AND BIOS 211 - Fundamentals of Organismal Biology Laboratory Credits: 1 **BIOS 302 - Molecular Biology Credits: 3** • ENGL 350 is a writing infused course. MATH 229 - Calculus I Credits: 4 Available for general education credit. o AND MATH 230 - Calculus II Credits: 4 Ţ Total Hours for Emphasis 2, Biochemistry: <mark>69-</mark>72-75 One of the Following (3-4) Students are encouraged to take at least one of the following: CHEM 462 - Inorganic Chemistry of the Main Group Elements Credits: 3 <u>CSCI 230 Computer Programming in FORTRAN Credits: 4</u> **Graduate Studies** Ţ

Rationale: 1) Students in Emphasis 2 are already required to take two other writing-infused classes for their majors. Removing ENGL 350 as a requirement for graduation will increase the choices available to students for completing their university requirements. Total hours for outside requirements and emphasis have been updated. 2) Recommended elective lists have been in the catalog for a long time, and are somewhat out of date (at least one class is very rarely taught). It is more appropriate to suggest that students pick electives appropriate for their interests in consultation with their advisors. Removing these lists also declutters the catalog. Note that more focused recommendations for Graduate Studies and Forensic Science have not been deleted.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.26

Chemistry (B.S.) ↓ Emphasis 3. Secondary Teaching

Requirements in Department (52-58)

• CHEM 210 - General Chemistry I Credits: 3 Available for general education credit.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 51 of 124

• AND CHEM 212 - General Chemistry Laboratory I Credits: 1 Available for general education credit.

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- CHEM 425 Analytical Chemistry II Credits: 4
 - OR CHEM 460 Inorganic Chemistry of the Transition Metals Credits: 3
 OR CHEM 470 General Biological Chemistry Credits: 3
- CHEM 428 Student Teaching (Secondary) in Chemistry Credits: 12
- CHEM 442 Physical Chemistry Laboratory I Credit: 1 CHEM 442 is a writing infused course.
- CHEM 490 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
- CHEM 493 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
- CHEM 495 416X Methods in Teaching of Physical Sciences Credits: 3
- <u>CHEM 496 Transition to the Professional Chemistry Teacher Credits: 1</u>
- CHEM 497 428 Student Teaching (Secondary) in Chemistry-Physical Sciences Credits: 10 12

Electives chosen from 400-level classes (4-9)

Requirements outside Department (30 27)

- ENGL 350 Writing Across the Curriculum Credits: 3
 ENGL 350 is a writing infused course.
- EPS 406 Issues in Human Development and Learning in the Middle School and High School Years (3)
- SESE 457 Methods for Including Middle and Secondary Students with Exceptionalities in the General Education Classroom Credits: 3

Total Hours for Emphasis 3, Secondary Teaching: 82-88 79-85

Recommendations

- BIOS 208 Fundamentals of Cellular Biology Credits: 3
 - AND BIOS 210 Fundamentals of Cellular Biology Laboratory Credits: 1
- BIOS 209 Fundamentals of Organismal Biology Credits: 3
- BIOS 211 Fundamentals of Organismal Biology Laboratory Credits: 1
- <u>CSCI 240 Computer Programming in C++ Credits: 4</u>

 GEOL 120 Planet Earth Credits: 3 Available for general education credit. This is a nature and technology general education course for the Origins and Influences Pathway.

• OR CEOL 325 Solid Earth Composition Credits: 4

Rationale: 1) Students in Emphasis 3 are already required to take two other writing-infused classes for

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 52 of 124

their majors. Removing ENGL 350 as a requirement for graduation will increase the choices available to students for completing their university requirements. Total hours outside requirements and emphasis have been updated. **2)** Recommended elective lists have been in the catalog for a long time, and are somewhat out of date (at least one class is very rarely taught). It is more appropriate to suggest that students pick electives appropriate for their interests in consultation with their advisors. Removing these lists also declutters the catalog.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.27

Chemistry (B.S.)

* Emphasis 4. Chemistry for Pre-Professional Students

Requirements in Department (32-33)

- CHEM 210 General Chemistry I Credits: 3 Available for general education credit.
- CHEM 470 General Biological Chemistry Credits: 3 and electives chosen from 400-level courses excluding courses numbered 428 and 490 to 497 496 (6-7)
 - OR CHEM 472 Biological Chemistry I Credits: 3
 - AND CHEM 473 Biological Chemistry II Credits: 3 and electives chosen from 400-level courses excluding courses numbered 428 and 490 to 497 496 (3-4)

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Requirements outside Department (38 <mark>35</mark>)

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- BIOS 208 Fundamentals of Cellular Biology Credits: 3
 - AND BIOS 209 Fundamentals of Organismal Biology Credits: 3
- BIOS 355 Human Physiology Credits: 4
- ENGL 350 Writing Across the Curriculum Credits: 3 ENGL 350 is a writing infused course.
- MATH 229 Calculus I Credits: 4
 - AND MATH 230 Calculus II Credits: 4

Total Hours for Emphasis 4, Chemistry for Pre-Professional Students: 70-71 67-68

Rationale: Students in Emphasis 4 are already required to take two other writing-infused classes for their majors. Removing ENGL 350 as a requirement for graduation will increase the choices available to students for completing their university requirements. Revision of CHEM 497 to 428. Updating requirement totals.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 53 of 124

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.28

Minor in Chemistry (19)

↓ Requirements (19)

A minimum of $\frac{9}{6}$ hours of the electives must be completed at NIU.

No more than 3 credits of CHEM 498/499 may be applied toward the Minor in Chemistry.

- CHEM 210 General Chemistry I Credits: 3 (Available for general education credit.)
 - AND CHEM 212 General Chemistry Laboratory I Credits: 1 (Available for general education credit.)
- CHEM 211 General Chemistry II Credits: 3 (Available for general education credit.)
 - AND CHEM 213 General Chemistry Laboratory II Credits: 1 (Available for general education credit.)

Electives from chemistry courses numbered CHEM 325 and above, excluding CHEM 370 (11)

Rationale: **1)** Students in majors such as biology ideally take Introductory Chemistry their freshman year (8 credits) and Organic Chemistry their sophomore year (8 credits). If they spend their first two years at a community college, they will then need to take nine more credit hours of chemistry at NIU, for a total of 25 credit hours in the minor. Six credit hours at NIU is a more reasonable amount, and matches the total required by Biology, Geology, Physics, and Mathematics. **2)** Please remove the parenthesis around "Available for general credit." to maintain consistency throughout the catalog.

Environmental Studies

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.29</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

ENVS 409 - Water Quality

Crosslisted as BIOS 409X, GEOL 409X, and PHHE 409X. Survey of and a field trip. **Prerequisites & Notes**

PRQ: CHEM 110 and CHEM 111 or CHEM 210 and CHEM 212; or consent of the department. Credits: 4

Rationale: This change allows students who test directly into 200-level chemistry to enroll in the course without the assistance of the department.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.30</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 54 of 124

ENVS 475 403X - Science Across Time and Culture The Nature of Scientific Inquiry Crosslisted as BIOS 484 403X, CHEM 499 403X, GEOL 475 403, and PHYS 499 403X. Examination of major concepts of science and how they evolved as a body of knowledge, a process, and a way of knowing and thinking. Comparison and contrast of the role and practice of science in various cultures and examination of the interaction between science, technology, and culture. Development of an understanding of scientific inquiry and its role in the secondary and middle school science classroom. Prerequisites & Notes PRQ: GEOL 120 and GEOL 121, or cConsent of department. Credits: 2

Rationale: Change in course number for the parent course, GEOL 475 to GEOL 403. Please see that course revision for full rationale.

Course Revision	2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) CLAS19.20.07.31
	2019-20 Online Undergraduate Catalog LINK (Course Desc)

ENVS 482 - Transition to the Professional Environmental Science Teacher A transitioning experience, in which a professional development plan, and a resume. **Prerequisites & Notes** CRQ: ENVS 487 428 or consent of the department. Credits: 2

Rationale: Change in course number for ENVS 487 to ENVS 428.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.32</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

ENVS 483 414X - Interdisciplinary Teaching of Science in Secondary and Middle Level Education Crosslisted as BIOS 402 414X, CHEM 493 414X, GEOL 483 414, and PHYS 493 414X. Methods and theory for the teaching of assessment rubrics, and ongoing development of a professional portfolio. Prerequisites & Notes PRQ: Consent of department. Credits: 3

Rationale: Change in course number for the parent course, GEOL 483 to GEOL 414. Please see that course revision for full rationale.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.33</u>

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 55 of 124

2019-20 Online Undergraduate Catalog LINK (Course Desc)

ENVS 487 428 - Student Teaching (Secondary) in Environmental Science Assignments made by Environmental Studies. Also see "Emphasis 7, Educator Licensure" for other regulations. Prerequisites & Notes PRQ: ENVS 495 416X and consent of department. Credits: 10 12

Rationale: The course numbers are changing in order to: 1) Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. 2) Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$. **3)** We are eliminating the "Transition to Professional Teaching" course (BIOS 486/CHEM 496/ENVS 482/GEOL 482/PHYS 496) from the program and increasing the total credits for our student teaching class (BIOS 485/ CHEM 497/ENVS 487/GEOL 487/PHYS 497) in order to: a) Reduce the total number of classes our students need to take. The material currently covered in the Transitions course class will be integrated into the student teaching experience. As a result, we are proposing the total number of credits increase from 10 to 12 for our student teaching class. Also, the total credits need to be at least 12 in order for our UGD students to qualify for the financial aid assistance and insurance coverage offered to full-time students. b) Align our program with the industry standard. Virtually every teacher prep program in the state of IL requires one class during the student teaching semester. Based on conversations with prospective students, program advisors feel requiring two classes gives the impression our program is more work and more expensive than programs at other institutions. This potentially makes our program less attractive to prospective students.

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.34</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

ENVS 495 416 - Methods in Teaching Environmental Sciences Methods and materials and theory for the undergraduate major in environmental sciences. **Prerequisites & Notes** CRQ: ENVS 401. Credits: 3

Rationale: The course numbers are changing in order to: **1**) Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. **2**)

p. 56 of 124 SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog

Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$. 3) The change in title more accurately reflects current course curriculum. As state requirements and accreditation standards changed over time, the course topics have been modified to better address these requirements.

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.35

Environmental Studies (ENVS)

Go to information for this department.

Programs

Major • Environmental Studies (B.A. or B.S.)

Minor

• Minor in Environmental Studies (21-22)

Certificate of Undergraduate Study

• Sustainable Food Systems (13-14)

Accelerated Integrated Degree

Accelerated B.A. or B.S./J.D Program in Environmental Studies and the College of Law

Display courses for this department.

Rationale: Addition of the Accelerated Integrated Degree to the program listing.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

Environmental Studies (B.A. or B.S.)

Requirements outside Environmental Studies (B.A., 10 9-22; B.S., 15-16-20) Emphasis 1. Biodiversity and Environmental Restoration (34-41 32-38) Requirements outside Environmental Studies (14 11) ↓

CLAS19.20.07.36

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 57 of 124

- BIOS 406 Conservation Biology Credits: 4
- GEOG 322 Geography of World Plant Communities Credits: 3
- GEOG 455 Land-Use Planning Credits: 3

Select one of the following humanities and social sciences courses (3)

- ANTH 420 Waterworlds Credits: 3 ANTH 420 also fulfills the Human Diversity Requirement.
- HIST 389 Global Climate History Credits: 3 HIST 389 is a writing infused course.
- MGMT 311 Social Entrepreneurship Credits: 3 Available for general education credit. This is a creativity and critical analysis general education course for the Creativity, Innovation, and Change Pathway.
- PHIL 334 Animal Ethics Credits: 3
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- POLS 324 Politics of Environmental Health and Safety Regulation Credits: 3 POLS 324 is a writing infused course.
- SOCI 364 Environmental Sociology Credits: 3
- WGSS 435 Gender and the Environment Credits: 3 WGSS 435 fulfills the Human Diversity Requirement.
 - OR ENVS 435X Gender and the Environment Credits: 3
 - ENVS 435X fulfills the Human Diversity Requirement.

Electives 18<mark>-24</mark>

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Select at least one of the following methods-based courses (3)

- BIOS 412 Mycology Credits: 4
- CHEM 427 Environmental Chemistry Credits: 3
- ENVS 409 Water Quality Credits: 4
 - OR BIOS 409X Water Quality Credits: 4
 - OR GEOL 409X Water Quality Credits: 4
 - OR PHHE 409X Water Quality Credits: 4
- GEOG 302 Soil Science Credits: 4 3
- GEOG 359 Introduction to Geographic Information Systems Credits: 3

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Select at least one of the following taxonomically-based courses (3)

- ANTH 341 Primatology Credits: 3
 - OR BIOS 341X Primatology Credits: 3
- BIOS 305 Biology of Land Plants Credits: 4
- BIOS 415 Water Microbiology Credits: 3
- BIOS 430 Plant Systematics Credits: 4
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- GEOL 471 Introduction to Micropaleontology Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 58 of 124

• OR BIOS 466X - Introduction to Micropaleontology Credits: 3

Rationale: MGMT 311 is a relevant social science course for ENVS, so we would like to add it to our program. BIOS 415 and SOCI 364 have not been taught since faculty left NIU and there are no plans to hire anyone qualified to teach either course, so we would like them removed from the program. We would also like to remove GEOG 322 from the program because it hasn't been offered in a long time, and there are no plans to offer it in the future. Updating section/total hours based on changes.

Impact Statement: MGMT was consulted regarding the addition of MGMT 311 to the list of optional requirements outside the department for Emphasis 1. The department has not identified any negative impact on course availability or enrollment with this change.

Other Catalog Change 2019-20 Undergraduate Catalog LINK CLAS19.20.07.37			
Environmental Studies (B.A. or B.S.)			
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Emphasis 2. Energy Studies (37 <mark>-38</mark>)			
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Requirements outside Environmental Studies (16 <mark>13</mark>)			
* Select three of the following technology/engineering-based courses (9)			
 ISYE 421 Introduction to Green Engineering Credits: 3 			
 ISYE 453 - Integrated Product and Process Design Credits: 3 			
 TECH 245 - Pollution Prevention and Sustainable Production Credits: 3 			
 TECH 411 - Environmental Sustainability Practices for Industrial Operations Credits: 3 			
 TECH 417 - Design for Energy Efficiency and Green Materials Credits: 3 			
TECH 419 - Energy Auditing Credits: 3			
 TECH 432 - Disaster Preparedness Credits: 3 			
 TECH 445 - Industrial Energy Utilization and Environmental Impacts Credits: 3 			
 TECH 484 - Energy Management Credits: 3 			
Select three of the following applications and natural science-based courses (9 <mark>-10</mark>)			
 BIOS 106 - Environmental Biology Credits: 3 			
CHEM 427 - Environmental Chemistry Credits: 3			
 ENVS 315 - Geography of Energy Credits: 3 			
 OR GEOG 315X - Geography of Energy Credits: 3 			
ENVS 409 - Water Quality Credits: 4			
 OR BIOS 409X - Water Quality Credits: 4 			
 OR GEOL 409X - Water Quality Credits: 4 			
 OR PHHE 409X - Water Quality Credits: 4 			
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MET 430 - Micrometeorology Credits: 3			
 PHYS 434 - Nuclear and Particle Physics Credits: 3 			

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 59 of 124

Select one of the following humanities and social sciences courses (3)

- ANTH 420 Waterworlds Credits: 3
 ANTH 420 also fulfills the Human Diversity Requirement.
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- HIST 389 Global Climate History Credits: 3 HIST 389 is a writing infused course.
- MGMT 311 Social Entrepreneurship Credits: 3
 Available for general education credit.
 This is a creativity and critical analysis general education course for the Creativity, Innovation, and Change Pathway.
- PHIL 334 Animal Ethics Credits: 3
- PHIL 335 Environmental Ethics Credits: 3
- PHIL 337 Business Ethics Credits: 3
- SOCI 364 Environmental Sociology Credits: 3

Rationale: 1) We ask that ISYE 421 and SOCI 364 be removed because they have not been taught since faculty left NIU, and there are no plans to hire anyone qualified to teach. 2) Faculty directly involved with Energy Studies request that ISYE 453 be removed from the program. 3) TECH 417 should be removed since it is already in the required section and is not needed in the electives section. 4) TECH 432 should be removed because it will be taught differently and is no longer relevant for ENVS Students. 5) ENVS 315/GEOG 315X are being deleted. 6) PHYS 434 should be removed from the program since it has not been taught in the past seven years. 7) We are adding TECH 445 to the program since it is a relevant course for the energy studies emphasis. 8) The content of TECH 484 is being revised and will be more appropriate for ENVS students in the ENVS energy studies emphasis, so it is being added to the program. 9) MGMT 311 is being added because it is a relevant social science course for ENVS. 10) Updating the section/total hours based on changes.

Impact Statement: MGMT and TECH have been consulted regarding the addition of their courses to the list of requirements. Neither department identified any negative impact on course availability or enrollment with these changes.

CLAS19.20.07.38

<u>Other Catalog Change</u> 2019-20 Undergraduate Catalog <u>LINK</u> **Environmental Studies (B.A. or B.S.)** ↓ Emphasis 3. Nature in Society (33-34 30-31) ↓ Requirements outside Environmental Studies (15) Select one of the following humanities courses (3) • ARTH 361 - History of Sustainable Design Credits: 3 ARTH 361 is a writing infused course. Available for general education credit.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 60 of 124

This is a society and culture general education course for the Sustainability Pathway.

- ENGL 360 Literature and Other Disciplines Credits: 3
 Course taught on an intermittent basis and will count towards ENVS when the topic is
 appropriate.
- ENGL 400 Literary Topics Credits: 3
 Course taught on an intermittent basis and will count towards ENVS when the topic is
 appropriate.
- HIST 377 American Environmental History Credits: 3 HIST 377 fulfills the Human Diversity Requirement.
- PHIL 334 Animal Ethics Credits: 3
- PHIL 335 Environmental Ethics Credits: 3
- WGSS 201 Global Gender Issues Credits: 3
 Available for general education credit.
 WGSS 201 also fulfills the Human Diversity Requirement.
- WGSS 435 Gender and the Environment Credits: 3 WGSS 435 fulfills the Human Diversity Requirement.
 - OR ENVS 435X Gender and the Environment Credits: 3 ENVS 435X fulfills the Human Diversity Requirement.

Select one of the following social sciences courses (3)

- ANTH 420 Waterworlds Credits: 3
 - OR ENVS 420X Waterworlds Credits: 3
 ↓
- ECON 386 Environmental Economics Credits: 3
- SOCI 364 Environmental Sociology Credits: 3

Select one of the following policy courses (3)

- GEOG 453 Environmental Management Credits: 3 ↓
- POLS 330 Bureaucracy and the Public Policy Process Credits: 3
 OR PSPA 330X Bureaucracy and the Public Policy Process Credits: 3

Select two of the following communication and writing courses (6)

- COMS 304 Introduction to Persuasion Theory Credits: 3
- ↓ • JOUR 401 - Editorial and Opinion Writing Credits: 3
 - JOUR 401 Editorial and Opinion writing C JOUR 401 is a writing infused course.

JOUR 490 - Ethnic Minorities and the News Media Credits: 3

Electives (15<mark>-16</mark>)

↓

Select at least two of the following social science courses (6)

- ANTH 343 Extinction: Where the Wild Things Were Credits: 3
 - OR ENVS 343X Extinction: Where the Wild Things Were Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 61 of 124

- ↓
- GEOG 455 Land-Use Planning Credits: 3
- MGMT 311 Social Entrepreneurship Credits: 3
 Available for general education credit.
 This is a creativity and critical analysis general education course for the Creativity, Innovation, and Change Pathway.
- NNGO 429 International NGOs and Globalization Credits: 3 NNGO is a writing infused course.
 - OR ANTH 429X International NGOs and Globalization Credits: 3 ANTH 429X is a writing infused course.
 - OR SOCI 329X International NGOs and Globalization Credits: 3 SOCI 329X is a writing infused course.
- POLS 306 The Mass Media in American Politics Credits: 3
- - ──OR BIOS 322X Politics and the Life Sciences Credits: 3
- POLS 324 Politics of Environmental Health and Safety Regulation Credits: 3 POLS 324 is a writing infused course.
- POLS 330 Bureaucracy and the Public Policy Process Credits: 3
 OR PSPA 330X Bureaucracy and the Public Policy Process Credits: 3
- POLS 389 International Law and Organization Credits: 3
- SOCI 364 Environmental Sociology Credits: 3
- SOCI 379 Collective Behavior and Social Movements Credits: 3
- SOCI 386 Peace and Social Justice Credits: 3
- SOCI 392 Organizing for Social Action Credits: 3

Select at least two of the following humanities courses (6)

- ARTH 361 History of Sustainable Design Credits: 3
 ARTH 361 is a writing infused course.
 Available for general education credit.
 This is a society and culture general education course for the Sustainability Pathway.
- ENGL 322 Language in American Society Credits: 3 ENGL 322 is a writing infused course.
- ENGL 360 Literature and Other Disciplines Credits: 3
 Course taught on an intermittent basis and will count towards ENVS when the topic is
 appropriate.
- ENGL 400 Literary Topics Credits: 3
 Course taught on an intermittent basis and will count towards ENVS when the topic is
 appropriate.
- EPFE 302 Advocacy, Justice and Leadership in a Diverse Society Credits: 3
- HIST 376 U.S. Capitalism and its Critics Credits: 3 \downarrow
- PHIL 353 Philosophy of Law Credits: 3
- PHIL 360 Philosophy of Science Credits: 3
- PHIL 430 Topics in Ethics Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 62 of 124

Course taught on an intermittent basis and will count towards ENVS when the topic is appropriate.

- PHIL 450 Topics in Social and Political Philosophy Credits: 3 Course taught on an intermittent basis and will count towards ENVS when the topic is appropriate.
- SCL 100 Foundation of Social Change Leadership Credits: 3
 Available for general education credit:
 This is a society and culture general education course for the Social Justice and Diversity Pathway.
- SCL 200 Application of Social Change Leadership Credits: 3
- WGSS 201 Global Gender Issues Credits: 3
 Available for general education credit.
 WGSS 201 also fulfills the Human Diversity Requirement.
- WGSS 430 Special Topics in Women's and Gender Studies Credits: 3 Course taught on an intermittent basis and will count towards ENVS when the topic is appropriate.

Select at least one of the following science, engineering, and technology courses (3-4)

- BIOS 106 Environmental Biology Credits: 3
- GEOG 455 Land-Use Planning Credits: 3
- GEOL 320 Environments and Life Through Time Credits: 4

 OR GEOL 322 Paleogeography, Paleoclimatology, Paleoceology Credits: 4
- GEOL 322 Paleogeography, Paleoclimatology, Paleoecology Credits: 4
- MEE 101 Energy and the Environment Credits: 3
 Available for general education credit.
 This is a nature and technology general education course for the Global Connections Pathway.
- TECH 245 Pollution Prevention and Sustainable Production Credits: 3
- TECH 294 Technology and Cultural Relevance Credits: 3 Available for general education credit. This is a nature and technology general education course for the Creativity, Innovation, and Change Pathway.

Rationale: 1) ARTH 361, WGSS 201, MGMT 311, EPFE 302, SCL 100, SCL 200, and TECH 294 are all being added to the program based on their relevance to ENVS within their areas of humanities and social sciences. 2) PSPA 330X, ANTH 429X, and SOCI 329X are being added as crosslistings to existing courses within the program. 3) ENGL 360 is being removed since the course has not been taught with relevance to ENVS in the last seven years, and the only faculty member who would have taught the course has retired and there are no plans to hire another faculty member with an environmental focus.
4) ENGL 400 is being removed since the course has not been taught with relevance to ENVS in the last five years, and the only faculty member who would have taught the course has retired and there are no plans to hire another faculty the course has retired and there are no plans to hire another faculty the course has retired and there are no plans to hire another faculty the course has retired and there are no plans to hire another faculty the course has retired and there are no plans to hire another faculty member who would have taught the course has retired and there are no plans to hire another faculty member with an environmental focus.
5) SOCI 364, JOUR 490, POLS 322, and SOCI 392 are being removed since the course has not been taught since faculty left NIU and there are no plans to hire anyone qualified to teach.
6) Faculty recommended the removal of PHIL 360 since it

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 63 of 124

is not directly relevant for ENVS. **7)** The general education notation needs to be added to MEE 101. **8)** Updating section/total hours based on changes.

Impact Statement: All the departments have been consulted regarding the addition of their courses to the list of requirements. None of the department identified any negative impact on course availability or enrollment with these changes.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.39

Environmental Studies (B.A. or B.S.)

* Emphasis 4. Environmental Policy (30-31) ↓ Requirements outside Environmental Studies (9)

Select one of the following policy/social science courses (3)

- ANTH 425 Environment and Anthropology Credits: 3 \downarrow
- GEOG 425 Geography of Food and Agriculture Credits: 3
- NNGO 429 International NGOs and Globalization Credits: 3 NNGO 429 is a writing infused course.
 - OR ANTH 429X International NGOs and Globalization Credits: 3 ANTH 429X is a writing infused course.
 - OR SOCI 329X International NGOs and Globalization Credits: 3 SOCI 329X is a writing infused course.
- POLS 324 Politics of Environmental Health and Safety Regulation Credits: 3 POLS 324 is a writing infused course.
- POLS 330 Bureaucracy and the Public Policy Process Credits: 3
 OR PSPA 330X Bureaucracy and the Public Policy Process Credits: 3
- POLS 410 Constitutional Law I Credits: 3

Select one of the following social sciences courses (3)

- ANTH 420 Waterworlds Credits: 3
- ANTH 466 Resource Conflicts and Environmental Peacebuilding Credits: 3
 OR ENVS 466X Resource Conflicts and Environmental Peacebuilding Credits: 3
- ECON 386 Environmental Economics Credits: 3
- MGMT 311 Social Entrepreneurship Credits: 3
 Available for general education credit.
 This is a creativity and critical analysis general education course for the Creativity, Innovation, and Change Pathway.
- SOCI 364 Environmental Sociology Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 64 of 124

Select one of the following humanities courses (3)

- ENVS 435X Gender and the Environment Credits: 3
- PHIL 337 Business Ethics Credits: 3
- PHIL 360 Philosophy of Science Credits: 3

Electives (21-22)

Select at least two of the following policy courses (6-9)

- ECON 186 Introduction to Environmental Economics Credits: 3 Available for general education credit.
- ECON 260 Principles of Microeconomics Credits: 3
- ECON 386 Environmental Economics Credits: 3
- GEOG 453 Environmental Management Credits: 3
- POLS 302 Government in Metropolitan Areas Credits: 3
 OR PSPA 302X Government in Metropolitan Areas Credits: 3
- POLS 303 State and Local Government Credits: 3
- POLS 320 Biopolitics and Human Nature Credits: 3
- POLS 322 Politics and the Life Sciences Credits: 3
 - -OR BIOS 322X Politics and the Life Sciences Credits: 3
- POLS 324 Politics of Environmental Health and Safety Regulation Credits: 3 POLS 324 is a writing infused course.
- POLS 326 Nonprofit Management Credits: 3
- POLS 330 Bureaucracy and the Public Policy Process Credits: 3
 OR PSPA 330X Bureaucracy and the Public Policy Process Credits: 3
- POLS 331 Public Administration Credits: 3 ↓
- POLS 410 Constitutional Law I Credits: 3

Select $\frac{1}{4}$ select $\frac{1}{4}$ two of the following communication and writing courses (6-9)

- COMS 304 Introduction to Persuasion Theory Credits: 3 \downarrow
- JOUR 360 Public Relations Writing Credits: 3
- JOUR 360 is a writing infused course.
- SOCI 364 Environmental Sociology Credits: 3

Select at least two of the following humanities courses (6-9)

- HIST 323 History of Science to Newton Credits: 3 Available for general education credit. This is a nature and technology general education course for the Learning Pathway.
- HIST 324 History of Science Since 1650 Credits: 3
- HIST 361 History of Health and Medicine in the United States Credits: 3 Available for general education credit.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 65 of 124

HIST 361 fulfills the Human Diversity Requirement.

This is a nature and technology general education course for the Health and Wellness Pathway.

↓

- PHIL 353 Philosophy of Law Credits: 3
- PHIL 360 Philosophy of Science Credits: 3
- PHIL 430 Topics in Ethics Credits: 3 Course taught on an intermittent basis and will count towards ENVS when the topic is appropriate.
- PHIL 450 Topics in Social and Political Philosophy Credits: 3 Course taught on an intermittent basis and will count towards ENVS when the topic is appropriate.
- WGSS 435 Gender and the Environment Credits: 3 WGSS 435 fulfills the Human Diversity Requirement.
 - OR ENVS 435X Gender and the Environment Credits: 3 ENVS 435X fulfills the Human Diversity Requirement.

Select at least one of the following science, engineering, and technology courses (3-4)

- BIOS 106 Environmental Biology Credits: 3
- GEOG 303 Water Resources and the Environment Credits: 3 Available for general education credit.
- GEOC 315X Ceography of Energy Credits: 3
 OR ENVS 315 Ceography of Energy Credits: 3
- GEOG 368 Climate Change: Science, Impacts, and Mitigation Credits: 3 \downarrow
- TECH 245 Pollution Prevention and Sustainable Production Credits: 3
- TECH 294 Technology and Cultural Relevance Credits: 3

Rationale: 1) ANTH 429X, PSPA 330X, and PSPA 302X are being added as crosslistings. 2) The "OR" needs to be added to the crosslisting for ANTH 466/ENVS 466X. 3) MGMT 311 is being added because it is a relevant social science course for ENVS. 4) ECON 260 is being added as a relevant social science course for ENVS. 5) TECH 294 is being added as a relevant technology course for students in the Nature in Society or Environmental Policy emphases. 6) SOCI 364 and POLS 322 are being removed because they have not been taught since faculty left NIU, and there are no plans to hire anyone qualified to teach.
7) Faculty recommended the removal of PHIL 360 because the course is not directly relevant for ENVS.
8) HIST 323, HIST 324, and ENVS 315/GEOG 315X are all being deleted. 9) Updating section/total hours based on changes.

Impact Statement: MGMT and TECH have been consulted regarding the addition of their courses to the list of requirements. Neither department identified any negative impact on course availability or enrollment with these changes.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 66 of 124

Environmental Studies (B.A. or B.S.)

Émphasis 5. Water Sciences (37-41 <mark>38-42</mark>) ↓ Requirements outside Environmental Studies (13 14)

Select three of the following methods-based courses (9-11)

- ENVS 210 Introduction to Sustainable Food Systems Credits: 3 Available for general education credit.
 ↓
- GEOG 368 Climate Change: Science, Impacts, and Mitigation Credits: 3
- GEOG 382 Geography of Disease and Health Credits: 3
- GEOG 403 Soils and Environmental Land Use Planning Credits: 3 \downarrow
- STAT 300 Introduction to Probability and Statistics Credits: 3 Available for general education credit.

Select one of the following engineering/technology-based courses (3)

- ENVS 315 Geography of Energy Credits: 3
 - ← OR GEOG 315X Geography of Energy Credits: 3
- MEE 101 Energy and the Environment Credits: 3
 Available for general education credit.
 This is a nature and technology general education course for the Global Connections Pathway.
- TECH 438 Safety in Transportation Systems Credits: 3
- TECH 445 Industrial Energy Utilization and Environmental Impacts Credits: 3

Select one of the following humanities and social sciences courses (3)

- ANTH 420 Waterworlds Credits: 3
 ↓
- HIST 389 Global Climate History Credits: 3 HIST 389 is a writing infused course.
- MGMT 311 Social Entrepreneurship Credits: 3
 Available for general education credit.
 This is a creativity and critical analysis general education course for the Creativity, Innovation, and Change Pathway.
- NNGO 429 International NGOs and Globalization Credits: 3 NNGO 429 is a writing infused course.
 - OR ANTH 429X International NGOs and Globalization Credits: 3 ANTH 429X is a writing infused course.
 - o OR SOCI 329X International NGOs and Globalization Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 67 of 124

SOCI 329X is a writing infused course.

- PHIL 335 Environmental Ethics Credits: 3
- POLS 324 Politics of Environmental Health and Safety Regulation Credits: 3 POLS 324 is a writing infused course.
- SOCI 364 Environmental Sociology Credits: 3

Total Hours for a Major in Environmental Studies: 58-<mark>83</mark> 81 (B.A.); OR 63-75 65-81 (B.S.)

Rationale: **1)** GEOG 382 is being added as a relevant methods course. **2)** TECH 445 is being added as a relevant technology course for the water studies emphasis. **3)** MGMT 311 is being added as a relevant social science course for ENVS. **4)** ANTH 429X is being added as a crosslisting. **5)** ENVS 315/GEOG 315X are being deleted. **6)** ISYE 421 and SOCI 364 are being removed since the courses have not been taught since faculty left NIU, and there are no plans to hire anyone qualified to teach. **7)** Updating sections/total hours based on change.

Impact Statement: GEOG, MGMT, and TECH have been consulted regarding the addition of their courses to the list of requirements. None of the departments identified any negative impact on course availability or enrollment with these changes.

Other Catalog Change 2019-20 Undergraduate Catalog LINK CLAS19.20.07.41

Environmental Studies (B.A. or B.S.)

Emphasis 6. Educator Licensure - Environmental Science (96 95-97)

Environmental Science Educator License

↓

Electives in designated courses teaching environmental science concepts (12<mark>-14</mark>)

- ANTH 425 Environment and Anthropology Credits: 3
- ANTH 425 is a writing infused course.
- ECON 386 Environmental Economics Credits: 3
- ENVS 315 Geography of Energy Credits: 3
 OR GEOG 315X Geography of Energy Credits: 3
- GEOG 253 Environment and Society Credits: 3 \downarrow
- TECH 484 Energy Management Credits: 3

↓ Professional education courses, including (37 <mark>36</mark>)

- BIOS 402 <mark>414</mark>X Interdisciplinary Teaching of Science in
- Secondary and Middle Level Education Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 68 of 124

0	OR CHEM 493 <mark>414</mark> X - Interdisciplinary Teaching of Science
0	in Secondary and Middle Level Education Credits: 3
-	
0	OR ENVS 483 414X - Interdisciplinary Teaching of Science
	in Secondary and Middle Level Education Credits: 3
0	OR GEOL 483 <mark>414</mark> - Interdisciplinary Teaching of Science
	in Secondary and Middle Level Education Credits: 3
0	OR PHYS 493 <mark>414</mark> X - Interdisciplinary Teaching of Science
	in Secondary and Middle Level Education Credits: 3
•	BIOS 484 <mark>403</mark> X - Science Across Time and Culture <mark>The</mark>
Nature	e of Scientific Inquiry Credits: 2
0	OR CHEM 499 403X - Science Across Time and Culture
	The Nature of Scientific Inquiry Credits: 2
0	OR ENVS 475 403X - Science Across Time and Culture The
	Nature of Scientific Inquiry Credits: 2
0	OR GEOL 475 403 - Science Across Time and Culture The
	Nature of Scientific Inquiry Credits: 2
0	OR PHYS 490 403X - Science Across Time and Culture The
	Nature of Scientific Inquiry Credits: 2
•	ENVS 401 - Third Clinical High School Experience in
Fnvire	onmental Science Credits: 2
	ENVS 482 - Transition to the Professional Environmental
Soiono	e Teacher Credits: 2
Scienc	
•	ENVS 487 <mark>428</mark> - Student Teaching (Secondary) in
Enviro	onmental Science Credits: 10 12
•	ENVS 495 <mark>416</mark> - Methods in Teaching Environmental
Scienc	es Credits: 3
\downarrow	

Rationale: ENVS 315/GEOG 315X are being deleted and need to be removed from the program. Updated course numbers and section hours based on changes.

<u>Other Catalog Change</u> 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.42

Minor in Environmental Studies (21-22 23)
↓
Requirements (21-22 23)
↓
Select three of the following environmental studies courses (9)
• ENVS 301 - Environmental Science I: Physical Systems Credits: 3
↓

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 69 of 124

- ENVS 304 Environmental Law, Policy, and Economics Credits: 3
- TECH 305 Green Technologies Credits: 3
 - OR ENVS 305X Green Technologies Credits: 3
 - -OR TECH 245 Pollution Prevention and Sustainable Production Credits: 3

Select from one of the following natural sciences, engineering, and technology courses (3-4)

- BIOS 406 Conservation Biology Credits: 4
- ENVS 301 Environmental Science I: Physical Systems Credits: 3
- ENVS 302 Environmental Science II: Biological Systems Credits: 3
- GEOG 303 Water Resources and the Environment Credits: 3 Available for general education credit.
- TECH 245 Pollution Prevention and Sustainable Production Credits: 3 Available for general education credit.
- TECH 305 Green Technologies Credits: 3
 OR ENVS 305X Green Technologies Credits: 3

Select from one of the following humanities and social sciences courses (3)

- ANTH 425 Environment and Anthropology Credits: 3 \downarrow
- ENVS 210 Introduction to Sustainable Food Systems Credits: 3
- ENVS 303 Environment in the Social Sciences and Humanities Credits: 3
- ENVS 304 Environmental Law, Policy, and Economics Credits: 3
- HIST 377 American Environmental History Credits: 3 Available for general education credit. HIST 377 also fulfills the Human Diversity Requirement.
 ↓
- POLS 324 Politics of Environmental Health and Safety Regulation Credits: 3 POLS 324 is a writing infused course.

Rationale: It is unnecessary to have the ENVS courses listed in each section with the way the language is written. Updating the hours.

Department of Geographic and Atmospheric Sciences

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.44</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

GEOG 302 - Soil Science

Lecture, field and laboratory s<mark>S</mark>tudy of physical, chemical, and biological properties of soils in agricultural, natural, and urban systems with an emphasis on environmental quality and sustainable use by society with emphasis on soil development, classification, geography, management, and conservation. Class time will include Hecture, laboratory, online, and field experience.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 70 of 124

Prerequisites & Notes PRQ: GEOG 101 or GEOL 120 or ENVS 301; or consent of department. Credits: **4 3**

Rationale: Evolution and current design of the course no longer requires the existing prereqs as background material. This allows students from across the university to take the course. Description update better reflects course content as currently delivered to students from many different majors across campus. Changed to 3 credits as there will be no separate lab section that meets. Lab activities will be incorporated into lecture meeting times, homework, and field meetings.

Course Revision	2019-20 Undergraduate Catalog LINK (UG Courses)	CLAS19.20.07.45
	2019-20 Online Undergraduate Catalog LINK (Catalog Desc)

GEOG 493 - Computer Programming for the Geosciences Geospatial and Atmospheric Sciences Introductory programming techniques used to process and visualize geospatial data. Programming in Python, basic program logic and control structures in that language, development of programmatic extensions for GIS software (e.g. ArcGIS), integration of Python with open source scientific programming libraries, and 2-D and 3-D visualization of geospatial data packages. No pPrior programming experience is preferred, but not required. Lecture and laboratory. Prerequisites & Notes

PRQ: GEOG 459 or CSCI 240 or consent of department. Credits: 3

Rationale: The above changes will bring the course description more in line with how the course is currently being taught.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.49

Geography (B.A. or B.S.)

Emphasis 1: Geography (B.A. or B.S.)

Electives chosen from one of the following four course groupings or any combination.

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Geographic Information Sciences

Course work from the following

- GEOG 360 Earth from Space: Introduction to Remove Sensing Credits: 3 ↓
- GEOG 491 Undergraduate Research in Geography Credits: 1-3
- GEOG 493 Computer Programming for the Geosciences Geospatial and Atmospheric Sciences Credits: 3
- Students must take 3 semester hours in this course.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 71 of 124

- GEOG 498 Seminar in Current Problems Credits: 3 J. Methods and Techniques
- GEOG 498 Seminar: Credits: 3: K. Mapping/Geovisualization

 \downarrow

Natural Environmental Systems

Students will be better prepared for this area by fulfilling the B.S. degree requirements. Course work from the following

- GEOG 302 Soil Science Credits: 4 3
- GEOG 303 Water Resources and the Environment Credits: 3 Available for general education credit.
 ↓

Rationale: Change in course title for GEOG 493, and change in credit hours for GEOG 302.

Other Catalog Change 2019-20 Undergraduate Catalog LINK CLAS19.20.07.50

Meteorology (B.S.)

Requirements outside Department (30-31)

- CSCI 240 Computer Programming in C++ Credits: 4
 - OR GEOG 493 Computer Programming for the Geosciences Geospatial and Atmospheric Sciences Credits: 3
- MATH 229 Calculus I Credits: 4 Available for general education credit.
 ↓

Rationale: Change in course title for GEOG 493.

Other Catalog Change 2019-20 Undergraduate Catalog LINK CLAS19.20.07.51

Geographic Information Systems (15)

Certificate of Undergraduate Study

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Course work from the following with consent of adviser (6)

- GEOG 360 Earth from Space: Introduction to Remove Sensing Credits: 3
- ↓
- GEOG 491 Undergraduate Research in Geography Credits: 1-3
- GEOG 493 Computer Programming for the Geosciences Geospatial and Atmospheric Sciences Credits: 3
- GEOG 498 Seminar in Current Problems Credits: 3 J. Methods and Techniques

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 72 of 124

• GEOG 498 - Seminar in Current Problems Credits: 3 K. Mapping/Geovisualization

Rationale: Change in title for GEOG 493.

Department of Geology and Environmental Geosciences

Course Revision	2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) CLAS19.20.07.53 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)
<i>Crosslisted a</i> technology. Prerequisi	The Interdisciplinary Secondary Science Teacher as BIOS 301X, CHEM 301X, and PHYS 301X. Seminar on and uses of tes & Notes 4 83 414 and ILAS 301.
Rationale: Change i	n course number for GEOL 483 to GEOL 414.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.54</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

GEOL 401 - Third Clinical High School/Middle School Experience in Earth and Space Science Seminar directed to designing evaluated experiences in the earth science classroom. **Prerequisites & Notes** CRQ: GEOL 495 416X. Credits: 2

Rationale: Change in course number for GEOL 495X to GEOL 416X.

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.07.552019-20 Online Undergraduate Catalog LINK (Catalog Desc)

GEOL 409X - Water Quality

Crosslisted as BIOS 409X, ENVS 409, and PHHE 409X. Survey of and a field trip. **Prerequisites & Notes** PRQ: CHEM 110 and CHEM 111 or CHEM 210 and CHEM 212; or consent of the department. Credits: 4

Rationale: Change in PRQ for parent course, ENVS 409. This change allows students who test directly into 200-level chemistry to enroll in the course without the assistance of the department.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses)

CLAS19.20.07.56

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 73 of 124

2019-20 Online Undergraduate Catalog LINK (Catalog Desc)

GEOL 475 403 - Science Across Time and Culture The Nature of Scientific Inquiry Crosslisted as BIOS 484 403X, CHEM 499 403X, ENVS 475 403X, and PHYS 499 403X. Examination of major concepts of science and how they evolved as a body of knowledge, a process, and a way of knowing and thinking. Comparison and contrast of the role and practice of science in various cultures and examination of the interaction between science, technology, and culture. Development of an understanding of scientific inquiry and its role in the secondary and middle school science classroom. Prerequisites & Notes PRQ: GEOL 120 and GEOL 121, or c

PRQ: GEOL 120 and GEOL 121, or consent of departm Credits: 2

Rationale: The course numbers are changing in order to: 1) Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. 2) Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$. **3)** The course name, description, and prerequisites of "Science Across Time and Culture (BIO 484X/CHEM 490X/ENVS 475X/GEOL 475/PHYS 490X)" are changing in order to: a) more accurately reflect current course curriculum. As state requirements and accreditation standards changed over time, the course topics have been modified to better address these requirements. **b**) emphasize that the course is intended for students in the educator licensure program. By adding "scientific inquiry and its role in the secondary and middle school science classroom." we reduce the likelihood a non-licensure student chooses this course as an elective for their plan of study. c) eliminate the possibility of a non-licensure student signing up for the course. The current PRQs are "GEOL 120 and GEOL 121, or consent of department". Therefore, if a student has completed GEOL 120/121, they have met the PRQs and are able to enroll in the course. Each year, 2-4 non-licensure students try and enroll in the class. We eliminate this possibility by removing the "GEOL 120/121" and making it "consent of department" only.

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

Course Revision

2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.57</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

GEOL 478 - Geoscientific Field Techniques

Immersive field experience that provides basic training in the integrative skills of systematic observation, data collection, description and interpretation of geological **processes**, **materials**, **and features**. Focus on creating and interpreting geological maps of lightly to moderately deformed regions dominated by sedimentary rocks. May involve ... outdoor activities. **Prerequisites & Notes**

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 74 of 124

PRQ: GEOL 335, GEOL 375, and GEOL 405; or consent of department. Credits: 2

Rationale: The current description of this course was revised last year. The highlighted section was inadvertently left out in the review/editing process. The new description reflects the department's intent to modernize and "modularize" our existing requirements for student training in the geoscientific field techniques that are essential to many employment and graduate school career pathways. By coupling this change with changes to our other field courses, we are now be able to offer students a wider array of less expensive field courses that we can offer over a wider range of times. Students will meet programmatic requirements for field study by taking the right set of courses that meet their professional goals while enabling them to meet their family and employment obligations. This flexibility will help us better meet the needs of today's student body, and will help to attract more students to our program.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.58</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

GEOL 482 - Transition to the Professional Earth and Space Science Teacher A transitioning experience in which a professional development plan, and a resume. **Prerequisites & Notes** CRQ: GEOL 487 428 or consent of department. Credits: 2

Rationale: Change in course number for GEOL 487 to GEOL 428.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.59</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

GEOL 483 414 - Interdisciplinary Teaching of Science in Secondary and Middle Level Education *Crosslisted as BIOS 402 414X, CHEM 493 414X, ENVS 483 414X, and PHYS 493 414X*. Methods and theory for the teaching of assessment rubrics, and ongoing development of a professional portfolio. **Prerequisites & Notes** PRQ: Consent of department. Credits: 3

Rationale: The course numbers are changing in order to: **1)** Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. **2)** Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow \underline{414X} \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$.

Notifications: All five science departments (department chairs, assist. department chairs, and/or

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 75 of 124

advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.60</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

GEOL 487 <mark>428</mark> - Student Teaching High School/Middle School (Secondary) in</mark> Earth and Space Science

Student teaching in grades **9**-12, assignments made by the Department of Geology and Environmental Geosciences. Also see "Educator Licensure Requirements" for other regulations. **Prerequisites & Notes**

PRQ: GEOL 495 416X and consent of department. Credits: 10 12

Rationale: The course numbers are changing in order to: 1) Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. 2) Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$. **3)** We are eliminating the "Transition to Professional Teaching" course (BIOS 486/CHEM 496/ENVS 482/GEOL 482/PHYS 496) from the program and increasing the total credits for our student teaching class (BIOS 485/ CHEM 497/ENVS 487/GEOL 487/PHYS 497) in order to: a) Reduce the total number of classes our students need to take. The material currently covered in the Transitions course class will be integrated into the student teaching experience. As a result, we are proposing the total number of credits increase from 10 to 12 for our student teaching class. Also, the total credits need to be at least 12 in order for our UGD students to qualify for the financial aid assistance and insurance coverage offered to full-time students. b) Align our program with the industry standard. Virtually every teacher prep program in the state of IL requires one class during the student teaching semester. Based on conversations with prospective students, program advisors feel requiring two classes gives the impression our program is more work and more expensive than programs at other institutions. This potentially makes our program less attractive to prospective students.

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.61</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

GEOL 495 416X - Methods in Teaching of Physical Sciences

Crosslisted as CHEM 495 416X and PHYS 495 416. Preparation for licensure teaching science to the exceptional child; reading and the teaching of science; methods of evaluation.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 76 of 124

Prerequisites & Notes

PRQ: Consent of department. CRQ: CHEM 401 or GEOL 401 or PHYS 401. Credits: 3

Rationale: Change in course number for the parent course, PHYS 495 to PHYS 416. Please see that course revision for full rationale.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.67

Geology and Environmental Geosciences (B.S.)

Students planning careers as Students planning to pursue initial educator licensure to teach in grades 69-12 will usually select the emphasis in earth science education, but completion of the emphasis does not fulfill all the requirements for initial educator licensure.

Emphasis 1. Geology

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Requirements in Department (42)

- GEOL 120 Planet Earth Credits: 3 Available for general education credit.
- GEOL 478 Geoscientific Field Techniques Credits: 2

(or an approved substitute taken at another university)

e-AND GEOL 479 Geoscientific Field Techniques II Credits: 2

(or an approved substitute taken at another university)

GR GEOL 477 - Field Methods in Environmental Geosciences Credits: 4

(or an approved substitute taken at another university)

• GEOL 477 - Field Methods in Environmental Geosciences Credits: 4

GEOL 477 is a writing infused course.

• OR GEOL 478 - Geoscientific Field Techniques Credits: 2

o AND GEOL 479 - Geoscientific Field Techniques II Credits: 2

(With prior approval from departmental undergraduate adviser, students may substitute field courses taken at other universities as long as those courses carry a combined total of at least 4 credit hours.)

• Upper-division GEOL course work, which may include senior thesis, selected in consultation with undergraduate adviser (15)

Requirements outside Department (24)

With written approval of the departmental undergraduate adviser, students with a special interest in ecology and/or paleontology may substitute BIOS 103 and BIOS 105 and BIOS 209 and BIOS 211 for PHYS 210 and PHYS 211 (or PHYS 253 and PHYS 273). Additional courses may be substituted with written approval of the departmental undergraduate adviser.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 77 of 124

Please note corequisite information in course descriptions.

Emphasis 2. Environmental Geosciences

Requirements in Department (36-39)

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- GEOL 120 Planet Earth Credits: 3 Available for general education credit.
- GEOL 477 Field Methods in Environmental Geosciences Credits: 4 GEOL 477 is a writing infused course.
 - OR an approved substitute taken at another university.
 - OR GEOL 478 Geoscientific Field Techniques Credits: 2 OR an approved substitute taken at another university.

-AND GEOL 479 Geoscientific Field Techniques II Credits: 2

- OR an approved substitute taken at another university.
- AND GEOL 479 Geoscientific Field Techniques II Credits: 2

(With prior approval from departmental undergraduate adviser, students may substitute field courses taken at other universities as long as those courses carry a combined total of at least 4 credit hours.)

• Upper-division GEOL course work (9-12) of which a minimum of 9 semester hours shall be in courses other than GEOL 489, GEOL 498, or GEOL 499H (except by approval of the undergraduate adviser).

Requirements outside Department (33-36)

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Upper-division course work selected from the following list of courses (9-12):

- ANTH 425 Environment and Anthropology Credits: 3
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- ENVS 304 Environmental Law, Policy, and Economics Credits: 3
- GEOG 302 Soil Science Credits: **4** 3
- GEOG 303 Water Resources and the Environment Credits: 3 Available for general education credit.

Emphasis 3. Earth and Space Science Education

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Requirements in Department (37)

- GEOL 103 Planetary and Space Science Credits: 3 Available for general education credit. This is a nature and technology general education course for the Origins and Influences Pathway.
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- GEOL 429 Inquiry-Based Field Experiences for Earth Science Teachers Credits: 3
 - GEOL 475 403 Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 78 of 124

- GEOL 483 414 Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
- GEOL 495 416X Methods in Teaching of Physical Sciences Credits: 3
- ↓

Rationale: 1) The Middle Grades and high school licensure programs were split by the ISBE starting in 2018. The current Middle Grades program (grades 5-8) is run by the College of Education. Therefore, the geology program now can only prepare people for high school teaching (grades 9-12) and this change to the program description reflects the change in grade levels involved in student teaching. **2)** Revising the notation under Emphasis 1 for GEOL 478, 479, and 477 to clarify the appropriate substitution requirements. **3)** Addition of writing infused statement for 477. **4)** Correction of the notation under Emphasis 1, Requirements Outside Department. **5)** Correction of the placement of "GEOL 477 is a writing infused course." It's currently split between rows and needs to be moved to its own line. **6)** Revising the notation under 477, 478, and 479, to clarify the appropriate substitution requirements. **7)** Deletion of the "H" in GEOL 499H under Emphasis 2, Environmental Geosciences. **8)** Update in credit hours for GEOG 302. **9)** Change in course numbers and titles for GEOL 475 to GEOL 403 and GEOL 495X to GEOL 416X.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.68

Minor in Geology and Environmental Geosciences (24 21)

Requirements (24 21)

Six or more semester hours in the minor must be taken at NIU.

<u>CHEM 210 - General Chemistry I Credits: 3</u>

Available for general education credit.

- CHEM 212 General Chemistry Laboratory I Credits: 1 Available for general education credit.
- GEOL 120 Planet Earth Credits: 3
 Available for general education credit.
 This is a nature and technology general education course for the Origins and Influences Pathway.
 O AND GEOL 121 Planet Earth Laboratory Credits: 1
 - GEOL 325 Solid Earth Composition Credits: 4
- GEOL 330 Global Cycles Credits: 4
- GEOL 335 Dynamics and Structure of the Earth Credits: 4
- GEOL 405 Sedimentology and Stratigraphy Credits: 4
- Additional 9 semester hours in GEOL courses listed as 300-level or higher.

Rationale: This change is to create more flexibility in course selection and in course scheduling for students pursuing a minor in geology, and it bring the geology minor more in line with requirements of other departments.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 79 of 124

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.69

Educator Licensure - Geology and Environmental Geosciences Students seeking initial licensure in earth and space science to teach in grades € 9-12 (Standard High School License) must schedule an interview with the departmental licensure coordinator to formulate a specific plan of study. ↓ Completion Requirements ↓ Earth and Space Science Educator Licensure All requirements listed in Emphasis 3, Earth and Space Science Education and the following: GEOL 322 - Paleogeography, Paleoclimatology, Paleoecology Credits: 4 ↓ GEOL 482 - Transition to the Professional Earth and Space Science Teacher Credits: 2 GEOL 487 428 - Student Teaching High School/Middle School Earth and

- GEOL 454 428 Student Teaching Figh School/ Middle School Earth and Space Science Credits: 10 12
- GEOL 495 416X Methods in Teaching of Physical Sciences Credits: 3
- LTIC 420 Methods and Materials for Teaching English Language Learners in the Content Areas Credits: 3

Except in unusual circumstances GEOL 401 and GEOL 495 416X must be taken in the semester immediately prior to enrollment in GEOL 487 428 and students are admitted to GEOL 487 only upon successful completion of the course work required for graduation and licensure. In addition, students must pass the ILTS Subject Matter test before student teaching. \downarrow

Rationale: The Middle Grades and high school licensure programs were split by the ISBE starting in 2018. The current Middle Grades program (grades 5-8) is run by the College of Education. Therefore, the geology program now can only prepare people for high school teaching (grades 9-12) and this change to the program description reflects the change in grade levels involved in student teaching. Change in course numbers for GEOL 487 to GEOL 428 and GEOL 495X to GEOL 416X.

Department of Physics

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.07.732019-20 Online Undergraduate Catalog LINK (Catalog Desc)

PHYS 301X - The Interdisciplinary Secondary Science Teacher Crosslisted as BIOS 301X, CHEM 301X, and GEOL 301. Seminar on the role performance

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 80 of 124

assessments, differentiated curriculum and uses of technology. **Prerequisites & Notes** CRQ: ILAS 301, PHYS 493 414 Credits: 1

Rationale: Change in course number for PHYS 493X to PHYS 414X.

Course Revision	2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) CLA	AS19.20.07.74	
	2019-20 Online Undergraduate Catalog LINK (Catalog I	(Catalog Desc)	

PHYS 401 - The Professional Physics Teacher

Seminar directed to designing hours of observation in the physics classroom. **Prerequisites & Notes** CRQ: PHYS 445 416. Credits: 2

Rationale: Change in course number for PHYS 495 to PHYS 416.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.75</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

PHYS 490 403X - Science Across Time and Culture The Nature of Scientific Inquiry Crosslisted as BIOS 484 403X, CHEM 490 403X, ENVS 475 403X, and GEOL 475 403. Examination of major concepts of science and how they evolved as a body of knowledge, a process, and a way of knowing and thinking. Comparison and contrast of the role and practice of science in various cultures and examination of the interaction between science, technology, and culture. Development of an understanding of scientific inquiry and its role in the secondary and middle school science classroom. Prerequisites & Notes PRQ: GEOL 120 and GEOL 121, or cConsent of department. Credits: 2

Rationale: Change in course number for the parent course, GEOL 475 to GEOL 403. Please see that course revision for full rationale.

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.07.762019-20 Online Undergraduate Catalog LINK (Catalog Desc)

PHYS 493 414X - Interdisciplinary Teaching of Science in Secondary and Middle Level Education *Crosslisted as BIOS* 402 414X, *CHEM* 493 414X, *ENVS* 483 414X, *and GEOL* 483 414. Methods and theory for the teaching of assessment rubrics, and ongoing development of a professional portfolio.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 81 of 124

Prerequisites & Notes PRQ: Consent of department. Credits: 3

Rationale: Change in course number for the parent course, GEOL 483 to GEOL 414. Please see that course revision for full rationale.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.07.77</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Catalog Desc)

PHYS 495 416 - Methods in Teaching of Physical Sciences

Crosslisted as CHEM 495 416X and *GEOL* 495 416X. Preparation for licensure teaching science to the exceptional child; reading and the teaching of science; methods of evaluation. **Prerequisites & Notes** PRQ: Consent of department. CRQ: CHEM 401 or GEOL 401 or PHYS 401. Credits: 3

Rationale: The course numbers are changing in order to: **1)** Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. **2)** Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$. **3)** The change in title more accurately reflects current course curriculum. As state requirements and accreditation standards changed over time, the course topics have been modified to better address these requirements.

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.07.782019-20 Online Undergraduate Catalog LINK (Catalog Desc)

PHYS 496 - Transition to the Professional Physics Teacher
A transitioning experience in which all INTASC, NSTA, and ISBE standards.
Prerequisites & Notes
CRQ: PHYS 497 428 or consent of department.
Credits: 2

Rationale: Change in course number for PHYS 497 to PHYS 428.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 82 of 124

2019-20 Online Undergraduate Catalog LINK (Catalog Desc)

PHYS 497 428 - Student Teaching (Secondary) in Physics/Physical Sciences
Student teaching in grades 9-12 for ... Not available for credit in the major.
Prerequisites & Notes
PRQ: PHYS 495 416 and consent of department.
Credits: 10 12

Rationale: The course numbers are changing in order to: 1) Create consistency between departments. Currently, each licensure course has different numbers in different departments. This will improve communication between program advisors and students and reduce confusion during registration. 2) Align the secondary program coursework into a logical numerical sequence across 4 semesters. For example, a biology student will take the sequence BIOS $403X \rightarrow 414X \rightarrow 416 \rightarrow 428$ in place of the current sequence of BIOS $484X \rightarrow 402X \rightarrow 403 \rightarrow 485$. **3)** We are eliminating the "Transition to Professional" Teaching" course (BIOS 486/CHEM 496/ENVS 482/GEOL 482/PHYS 496) from the program and increasing the total credits for our student teaching class (BIOS 485/ CHEM 497/ENVS 487/GEOL 487/PHYS 497) in order to: a) Reduce the total number of classes our students need to take. The material currently covered in the Transitions course class will be integrated into the student teaching experience. As a result, we are proposing the total number of credits increase from 10 to 12 for our student teaching class. Also, the total credits need to be at least 12 in order for our UGD students to qualify for the financial aid assistance and insurance coverage offered to full-time students. **b)** Align our program with the industry standard. Virtually every teacher prep program in the state of IL requires one class during the student teaching semester. Based on conversations with prospective students, program advisors feel requiring two classes gives the impression our program is more work and more expensive than programs at other institutions. This potentially makes our program less attractive to prospective students.

Notifications: All five science departments (department chairs, assist. department chairs, and/or advisors) have all been notified of the proposed changes. The middle grades licensure program coordinator and advisor in the College of Education have been notified of the proposed change.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.82

Physics (B.S.)

* Emphasis 2. Secondary School Teaching

Requirements in Department (37)

- PHYS 253 Fundamentals of Physics I: Mechanics Credits: 4 Available for general education credit.
- PHYS 383 Intermediate Quantum Physics Credits: 3
- PHYS 493 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 83 of 124

- PHYS 495 416 Methods in Teaching of Physical Sciences Credits: 3
- PHYS 498 Senior Seminar Credits: 1

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Rationale: Changes in course numbers and titles.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.83

Educator Licensure Program - Physics

* Requirements

- ↓
- EPS 406 Issues in Human Development and Learning in the Middle School and High School Years Credits: 3
- PHYS 401 The Professional Physics Teacher Credits: 2 (Must be taken concurrently with PHYS 495 416.)
- PHYS 490 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
- PHYS 493 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
- PHYS 495 416 Methods in Teaching of Physical Sciences Credits: 3 (Must be taken concurrently with PHYS 401.)
- PHYS 496 Transition to the Professional Physics Teacher Credits: 2
- PHYS 497 428 Student Teaching (Secondary) in Physics/Physical Sciences Credits: 10
 12
- SESE 457 Methods for Including Middle and Secondary Students with Exceptionalities in the General Education Classroom Credits: 3

Rationale: Updating course numbers and titles.

Other Colleges

College of Health and Human Sciences

Health Studies (AHLS, HLTH, NUTR, PHHE)

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.07.842019-20 Online Undergraduate Catalog LINK (Course Desc)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 84 of 124

PHHE 409X - Water Quality

Crosslisted as BIOS 409X, ENVS 409, and GEOL 409X. Survey of and a field trip. **Prerequisites & Notes** PRQ: CHEM 110 and CHEM 111 or CHEM 210 and CHEM 212; or consent of the department. Credits: 4

Rationale: Change in PRQ for parent course, ENVS 409. This change allows students who test directly into 200-level chemistry to enroll in the course without the assistance of the department.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.85

Public Health (B.S.)

↓ Emphasis 3. Environment and Health ↓ Requirements outside School (28-31) ↓ Two of the following (6-7) • GEOG 256 - Maps and Mapping Credits: 3

- GEOG 256 Maps and Mapping Credits: 3 Available for general education credit.
- GEOG 302 Soil Science Credits: 4 3
- GEOG 303 Water Resources and the Environment Credits: 3 Available for general education credit.
- GEOG 432 GIS for Public and Environmental Health Credits: 3

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Rationale: Change in credit hours for GEOG 302.

College of Education

Curriculum and Instruction (LTCY, LTIC, LTLA, LTRE, MLTL, TLCI, TLEE)

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.07.86

Middle Level Teaching and Learning (B.S.Ed.)

Professional Education Requirements (49)

One of the following in the major content area (3)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 85 of 124

- GEOL 483 414 Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - OR BIOS 402 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - OR CHEM 493 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - OR ENVS 483 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - OR PHYS 493 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
- LTLA 350 Language Arts in the Middle School Credits: 3

Requirements for Endorsement in One of the Following Minor Content Areas:

Major Content Area Option: Science (33)

BIOS 208 - Fundamentals of Cellular Biology Credits: 3

• AND BIOS 210 - Fundamentals of Cellular Biology Laboratory Credits: 1

- \downarrow
- GEOL 120 Planet Earth Credits: 3

Available for general education credit.

This is a nature and technology general education course for Origins and Influences Pathway.

Available for general education credit.

- AND GEOL 121 Planet Earth Laboratory Credits: 1 Available for general education credit. Available for general education credit.
- GEOL 475 403 Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
 - OR BIOS 484 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
 - OR CHEM 490 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
 - OR ENVS 475 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
 - OR PHYS 490 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
- PHYS 210 General Physics I Credits: 4 Available for general education credit.
- PHYS 211 General Physics II Credits: 4 Available for general education credit.
- PHYS 495 416 Methods in Teaching of Physical Sciences Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 86 of 124

- OR CHEM 495 416X Methods in Teaching of Physical Sciences Credits: 3
- OR GEOL 495 416X Methods in Teaching of Physical Sciences Credits: 3
- ↓

Minor Content Area Option: Science (24)

- BIOS 208 Fundamentals of Cellular Biology Credits: 3
 - AND BIOS 210 Fundamentals of Cellular Biology Laboratory Credits: 1
- BIOS 209 Fundamentals of Organismal Biology Credits: 3
 - AND BIOS 211 Fundamentals of Organismal Biology Laboratory Credits: 1
- GEOL 483 414 Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - OR BIOS 402 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - OR CHEM 493 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - OR ENVS 483 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - OR PHYS 493 414X Interdisciplinary Teaching of Science in Secondary and Middle Level Education Credits: 3
 - GEOL 475 403 Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
 - OR BIOS 484 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
 - OR CHEM 499 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
 - OR ENVS 475 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2
 - OR PHYS 499 403X Science Across Time and Culture The Nature of Scientific Inquiry Credits: 2

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Rationale: Revisions to course numbers and titles.

COLLEGE OF LIBERAL ARTS AND SCIENCES

All University Section

WI <u>Other Catalog Change</u> 2019-20 Undergraduate Catalog <u>LINK</u>

CLAS19.20.08.01

Writing Infused Courses

* List of Writing Infused Courses

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 87 of 124

- ACCY 375 Accountancy Writing Lab Credits: 1
- ENGL 302 Writing Fiction I Credits: 3
- ENGL 303 Writing Creative Nonfiction I Credits: 3
- ENGL 308 Technical Writing Credits: 3
- FINA 485 Cases in Financial Decision Making Credits: 3
- FLAL 420 320 Introduction to Translation Theory Credits: 3
- FLAL 483 Applied Linguistics and the Romance Languages Credits: 3 \downarrow
- WGSS 350 Lesbian, Gay, Bisexual, and Transgender Studies Credits: 3
 WGSS 350 is available for general education credit.
 WGSS 350 fulfills the Human Diversity Requirement.
 This is a society and culture general education course for the Social Justice and Diversity Pathway.

Rationale: Change in title for ENGL 303 and change in course number for FLAL 420 to FLAL 320.

GEC Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.02

General Education Requirements

* Knowledge Domain Course Descriptions

Creativity and Critical Analysis Course Descriptions

- ANTH 102 Rise of Civilization Credits: 3
- LATS 100 Introduction to Latin American Studies Credits: 3
- LATS 101 Introduction to Latino Studies Credits: 3
- LESM 152 Perspectives in U.S. Sport Credits: 3
- WGSS 202 Women and Cultural Expression Credits: 3

Nature and Technology Course Descriptions

- ANTH 103 The Great Apes Credits: 3
- ANTH 240 Becoming Human: Discovering Human Origins Credits: 3
- ANTH 261X Language, Mind, and Thought Credits: 3
- ARTH 331 Art, Nature and Technology 1400 to 1800 Credits: 3 ARTH 331 is also a writing infused course.

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SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 88 of 124

- GEOL 304 Diamonds, Gems, and Other Precious Stones Laboratory Credits: 1
- HIST 323 History of Science Credits: 3
- HIST 377 American Environmental History Credits: 3
- TECH 294 Technology and Cultural Relevance Credits: 3

↓
Pathways
↓
Learning
↓
Select one of the following Nature and Technology courses:

ENGL 261X - Language, Mind, and Thought Credits: 3
ETR 450 - Data Analysis for Design and Evaluation Credits: 3
↓
ILAS 261 - Language, Mind, and Thought Credits: 3

- OR ANTH 261X Language, Mind, and Thought Credits: 3
- o OR ENGL 261X Language, Mind, and Thought Credits: 3
- PSYC 345 Cognitive Psychology Credits: 3

Rationale: Addition of LATS 101 to the Creativity and Critical Analysis non-pathway course options. Addition of the new ANTH 261X crosslisting and the new HIST 323 (History of Science) to the Nature and Technology non-pathway course options. Addition of the new ANTH 261X crosslisting to the Nature and Technology section of the Learning pathway. ENGL 261X was previously added to the beginning of the list, but has been moved under ILAS 261 as crosslisted options.

College of Liberal Arts and Sciences

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.08.032019-20 Online Undergraduate Catalog LINK (Course Desc)

ILAS 261 - Language, Mind, and Thought *Crosslisted as ANTH 261X and ENGL 261X.* Functioning of the human mind from the perspectives of anthropology, artificial intelligence, culture, and models of cognition. Credits: 3

Rationale: Addition of ANTH 261X crosslisting to the description.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.04

College of Liberal Arts and Sciences

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 89 of 124

Pre-professional Advisement

The Academic Advising Center and Counseling Office, in cooperation with selected faculty members within the college, is responsible for the advisement of students interested in predentistry, pre-engineering, pre-law, pre-medicine, pre-optometry, pre-pharmacy, pre-podiatry, and pre-veterinary medicine. Students interested in the health science programs listed above should also consult with the designated pre-professional adviser in the Department of Biological Sciences. The Advising and Counseling Office of the College of Liberal Arts and Sciences maintains a library of catalogs from professional schools, and other written information about professional schools and about the professions themselves, and assists applicants throughout the application process.

Course Selection for Biomedical Pre-professional Students

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Pre-dentistry. Most dental schools require PSYC 102, PYSC PSYC 225, STAT 301 200, and two semesters of English composition.

Pre-medicine. Additional classes in sociology and Immunobiology (BIOS 440). **Pre-optometry.** Many optometry schools require Elementary Statistics - STAT 301 200; and Lifespan Development - PSYC 225. ↓

Rationale: Updating the advising information for pre-professional students. Correcting a typo in the PSYC designator. Correcting the change in STAT 301 to STAT 200 that were missed with last year's updates.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.05

Minor in Cognitive Studies (18-19)

Requirements (18-19)

Six or more semester hours in the minor must be taken at NIU.

Core course (3)

• ILAS 261 - Language, Mind, and Thought Credits: 3 Available for general education credit.

This is a nature and technology general education course for the Learning Pathway. OR ANTH 261X - Language, Mind, and Thought Credits: 3

- Available for general education credit. This is a nature and technology general education course for the Learning Pathway.
- OR ENGL 261X Language, Mind, and Thought Credits: 3 Available for general education credit. This is a nature and technology general education course for the Learning Pathway.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 90 of 124

At least five of the following, from at least three departments (15-16) \downarrow

Rationale: Addition of the ANTH 261X crosslisting to the list of core courses.

Notification: The Coordinator for the Minor in Cognitive Studies was notified of this change via email on November 13, 2019.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.06

Minor in Linguistics (18-19)

Additional Courses (9-15)

- ANTH 331 Language and Culture Credits: 3 ANTH 331 is a writing infused course.
 ↓
- ILAS 261 Language, Mind, and Thought Credits: 3 Available for general education credit. This is a nature and technology general education course for the Learning Pathway.
 - OR ANTH 261X Language, Mind, and Thought Credits: 3
 Available for general education credit.
 This is a nature and technology general education course for the Learning Pathway.
 OR ENCL 201X
 Language, Mind, and Thought Credits: 3
 - OR ENGL 261X Language, Mind, and Thought Credits: 3
 Available for general education credit.
 This is a nature and technology general education course for the Learning Pathway.
 - PHIL 205 Symbolic Logic Credits: 3 Available for general education credit.

Rationale: Addition of the ANTH 261X crosslisting to the list of additional courses.

Notification: The Coordinator for the Minor in Linguistics was notified of this change via email on November 13, 2019.

<u>Other Catalog Change</u> 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.07

Minor in Professional Communication (18)

↓ Requirements (18) ↓ Three of the following, including ENGL 308 and/or ENGL 403 (9)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 91 of 124

- ENGL 207 Fundamentals of English Grammar Credits: 3
- ENGL 300 Advanced Essay Composition Credits: 3 A. General ENGL 300 is a writing infused course.
- ENGL 303 Writing Creative Nonfiction I Credits: 3 ENGL 303 is a writing infused course.
- ENGL 304 Writing About the Arts Credits: 3
 ↓
- ENGL 496 Internship in Writing, Editing, or Training Credits: 1-6

Rationale: Change in course title for ENGL 303.

Notification: The Coordinators for the Minor in Professional Communication were notified of this change via email on November 13, 2019.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.22

Anthropology (B.A. or B.S.)

Requirements in Department (36-37)

(C) Language, Culture, and Mind

- ANTH 331 Language and Culture Credits: 3 ANTH 331 is a Writing Infused course.
- ILAS 261 Language, Mind, and Thought Credits: 3 Available for general education credit.

This is a nature and technology general education course for the Learning Pathway.

- OR ANTH 261X Language Mind and Thought Credits: 3
 Available for general education credit.
 This is a nature and technology general education course for the Learning Pathway.
- OR ENGL 261X Language Mind and Thought Credits: 3 Available for general education credit. This is a nature and technology general education course for the Learning Pathway.

(D) General Anthropology

- ANTH 301 American Culture Credits: 3
 ANTH 301 also fulfills the Human Diversity Requirement.
 ↓
- ILAS 261 Language, Mind, and Thought Credits: 3 Available for general education credit. This is a nature and technology general education course for the Learning Pathway.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 92 of 124

- OR ANTH 261X Language Mind and Thought Credits: 3
 Available for general education credit.
 This is a nature and technology general education course for the Learning Pathway.
- OR ENGL 261X Language Mind and Thought Credits: 3 Available for general education credit. This is a nature and technology general education course for the Learning Pathway.

Requirements outside Department (B.A., 9-21; B.S., 19-24 21-26) ↓

For the B.S. degree

Laboratory science/mathematical/computational skills sequence (10–15 12-17) (See "College Requirement for the B.S. Degree.") in the Other Graduation Requirements section of this catalog.

Total Hours for a Major in Anthropology: 45-58 (B.A.) OR 55-61 57-63 (B.S.) ↓

Rationale: Addition of ANTH 261X crosslisted with ILAS 261/ENGL 261X. Correction to the outside requirements for the B.S. and total hours which were missed during the sweeping update to the B.S. requirements last year.

Department of English

<u>Course Revision</u> 2019-20 Undergraduate Catalog LINK <u>CLAS19.20.08.24</u> (ENGL 261X was approved at our #3 minutes; it isn't in the catalog yet.)

ENGL 261X - Language, Mind, and Thought

Crosslisted as ANTH 261X and ILAS 261. Functioning of the human mind from the perspectives of anthropology, artificial intelligence, culture, and models of cognition. Credits: 3

Rationale: Addition of the ANTH 261X crosslisting to the description.

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.08.252019-20 Online Undergraduate Catalog LINK (Course Desc)

ENGL 303 - Writing Creative Nonfiction I

Writing informal and formal nonfiction and may include biography and history. **Prerequisites & Notes** PRQ: Any writing course beyond the freshman level or consent of department.

Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 93 of 124

Rationale: Revision to the course title of ENGL 303 that was overlooked when ENGL 493 - Writing Creative Nonfiction II was added to the course offerings.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

English (B.A. or B.S.)

Track 3. English Studies in Writing

↓ Requirements in Department (39)

↓ Four of the following Writing courses (12)

- ENGL 300 Advanced Essay Composition Credits: 3 A. General \downarrow
- ENGL 302 Writing Fiction I Credits: 3 ENGL 302 is a writing infused course.
- ENGL 303 Writing Creative Nonfiction I Credits: 3 ENGL 303 is a writing infused course.
- ENGL 304 Writing About the Arts Credits: 3 ENGL 304 is a writing infused course.
- ENGL 350 Writing Across the Curriculum Credits: 3

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Rationale: Revision to the title of ENGL 303.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.27

CLAS19.20.08.26

Creative Writing (12)

Certificate of Undergraduate Study

↓ Foundational courses:

• ENGL 301 - Writing Poetry I Credits: 3

ENGL 301 is a writing infused course.

- AND ENGL 401 Writing Poetry II Credits: 3
 - ENGL 401 is a writing infused course.
 - OR ENGL 302 Writing Fiction I Credits: 3 ENGL 302 is a writing infused course.
 - AND ENGL 402 Writing Fiction II Credits: 3
 - ENGL 402 is a writing infused course.
 - OR ENGL 303 Writing Creative Nonfiction I Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 94 of 124

ENGL 303 is a writing infused course. ***NOTE TO EDITOR: This line needs to be indented so it's under the "OR" above.**

• AND ENGL 493 - Writing Creative Nonfiction II Credits: 3 ENGL 493 is a writing infused course.

Rationale: Revision to the title of ENGL 303.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.28

CLAS19.20.08.29

English Course List

Writing Courses

- ENGL 102 Composition Skills Credits: 3
 ↓
- ENGL 302 Writing Fiction I Credits: 3
- ENGL 303 Writing Creative Nonfiction I Credits: 3
- ENGL 304 Writing About the Arts Credits: 3
- ENGL 493 Writing Creative Nonfiction II Credits: 3

Rationale: Revision to the title of ENGL 303.

Environmental Studies

Other Catalog Change 2019-20 Undergraduate Catalog LINK

Environmental Studies (B.A. or B.S.)

Emphasis 3. Nature in Society (33-34)

↓ Requirements outside Environmental Studies (15)

1

Select two of the following communication and writing courses (6)

- COMS 304 Introduction to Persuasion Theory Credits: 3 \downarrow
- COMS 419 Political Communication in America Credits: 3 COMS 419 is a writing infused course.
- ENGL 303 Writing Creative Nonfiction I Credits: 3 ENGL 303 is a writing infused course.
- ENGL 308 Technical Writing Credits: 3 ENGL 308 is a writing infused course.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 95 of 124

 ↓
 JOUR 401 - Editorial and Opinion Writing Credits: 3 JOUR 401 is a writing infused course.

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Electives (15)
Emphasis 4. Environmental Policy (30-31)
Requirements outside Environmental Studies (9)
Electives (21-22)
Select at least two of the following communication and writing courses (6-9)
       COMS 304 - Introduction to Persuasion Theory Credits: 3
   •
       COMS 419 - Political Communication in America Credits: 3
       COMS 419 is a writing infused course.
                                    ENGL 303 - Writing Creative Nonfiction I Credits: 3
       ENGL 303 is a writing infused course.
                                    ENGL 308 - Technical Writing Credits: 3
   •
       ENGL 308 is a writing infused course.
       JOUR 360 - Public Relations Writing Credits: 3
       JOUR 360 is a writing infused course.
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Rationale: Revision to the title of ENGL 303.

Department of Geology and Environmental Geosciences

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.30

Geology and Environmental Geosciences (B.S.)

* Emphasis 2. Environmental Geosciences

* Requirements outside Department (33-36)

- CHEM 210 General Chemistry I Credits: 3 Available for general education credit.
 - AND CHEM 212 General Chemistry Laboratory I Credits: 1 Available for general education credit.
- CHEM 211 General Chemistry II Credits: 3 Available for general education credit.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 96 of 124

- AND CHEM 213 General Chemistry Laboratory II Credits: 1 Available for general education credit.
- Any of the two-semester laboratory science sequences, other than CHEM or GEOL, listed under the College of Liberal Arts and Sciences "College Requirement for the B.S. Degree" in the Undergraduate Catalog. These would normally be selected to complement the cross-disciplinary focus. Substitutions for special reasons, such as to satisfy a minor, may be approved by the undergraduate adviser. (8)
 MATH 229 Calculus I Credits: 4
- Available for general education credit. • AND MATH 230 - Calculus II Credits: 4 OR

◆ One of the following groups of courses-Physics or Biological Sciences ↓

Rationale: This is a carryover from a previous version of the catalog. The next section entitled "One of the following groups of courses—Physics or Biological Sciences" was intended to replace this catalog language but it was not deleted when the change was submitted. The language needs to be deleted to allow CLAS Advising to properly track student academic progress in the major.

Center for Latino and Latin American Studies

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.31

Minor in Latino/Latin American Studies

* Requirements (18)

Five Four of the following (15 12)

ANTH 414 - Archaeology of Mesoamerica Credits: 3

SOCI 379 - Collective Behavior and Social Movements Credits: 3

Rationale: The program requires 18 hours to complete. With six core hours, that means only 12 hours of electives are needed (four courses). The change above reflects this correction.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.37

Nonprofit and NGO Studies (B.A. or B.S.)

The Center for Nonprofit and NGO Studies offers both a B.A. and a B.S. degree for a major in nonprofit and NGO studies that is designed primarily for students seeking a career in public affairs in government, voluntary social agencies, and public interest groups. A minor and certificate of undergraduate study in nonprofit and NGO studies are also available. Each student must complete the required courses of the major along with 15 semester hours in

p. 97 of 124 SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog

interdisciplinary electives related to the worlds in which nonprofits and NGOs operate, chosen with an adviser. Several university departments participate in the major in nonprofit and NGO studies.

Requirements in Center (18 24)

1

- NNGO 100 Community Leadership and Civic Engagement Credits: 3 Available for general education credit. This is a society and culture general education course for the Social Justice and Diversity Pathway.
- NNGO 301X Philanthropy and Fundraising Credits: 3 • OR PSPA 301 - Philanthropy and Fundraising Credits: 3
- NNGO 302 Introduction to Research in Non-Governmental Organizations and **Communities Credits: 3**
- NNGO 303 Nonprofit Administration for Social Justice Credits: 3
- NNGO 350 Community Organizations in a Digital World Credits: 3 •
 - OR NNGO 390 Special Topics in Nonprofit and NGO Studies Credits: 3 **OR NNGO 351 - Nonprofit Boards and Governance Credits: 3**
 - OR NNGO 352 Nonprofit Program Development and Evaluation Credits: 3
- NNGO 493 Nonprofits and Community Engagement Credits: 3
- NNGO 429 International NGOs and Globalization Credits: 3 NNGO 429 is a writing infused course.
 - OR ANTH 429X International NGOs and Globalization Credits: 3 0 ANTH 429X is a writing infused course.
 - o OR SOCI 329X International NGOs and Globalization Credits: 3 SOCI 329X is a writing infused course.
- NNGO 493 Nonprofits and Community Engagement Credits: 3
- NNGO 495 Capstone Seminar in Nonprofit and NGO Studies Credits: 3 NNGO 495 is a writing infused course.

Requirements outside center (33 27-44)

- ANTH 220 Introduction to Cultural Anthropology Credits: 3 Available for general education credit. This is a society and culture general education course for the Global Connections Pathway.
 - **OR ECON 160 Contemporary Economic Issues Credits: 3** 0 Available for general education credit. This is a society and culture general education course for the Sustainability Pathway. Ţ
 - OR SOCI 270 Social Problems Credits: 3 0 Available for general education credit. This is a society and culture general education course for the Social Justice and **Diversity Pathway.**
- ANTH 329 Anthropology and Contemporary World Problems Credits: 3 ANTH 329 also fulfills the Human Diversity Requirement.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 98 of 124

- POLS 100 American Government and Politics Credits: 3
- PSPA 326X Nonprofit Management Credits: 3
 OR POLS 326 Nonprofit Management Credits: 3
- PSPA 301 Philanthropy and Volunteerism Credits: 3
- SOCI 379 Collective Behavior and Social Movements Credits: 3

For the B.A. degree

Fulfillment of foreign language requirement (0-12) (See "Foreign Language Requirement for the B.A. Degree.")

See "Foreign Language Requirement for the B.A. Degree" in the Other Graduation Requirements section of this catalog.

For the B.S. degree

Laboratory science/mathematical/computational skills sequence (10-15 12-17) (See "College Requirement for the B.S. Degree.")

See "College Requirement for the B.S. Degree" in the Other Graduation Requirements section of this catalog.

Electives (15)

Five of the following, chosen with adviser approval.

- ACCY 288 Introduction to Fundamentals of Accounting Credits: 3 ↓
- JOUR 490 Ethnic Minorities and the News Media Credits: 3
- NNGO 390 Special Topics in Nonprofit and NGO Studies Credits: 3
- NNGO 490 Nonprofit and NGO Studies Internship Credits: 1-3
- NUTR 406 Global Food and Nutrition Issues Credits: 3 NUTR 406 is a writing infused course. Available for general education credit. This is a nature and technology general education course for the Global Connections Pathway.
 WCSS 202 - We may and C. It will Frequencies Condition 2
- WGSS 202 Women and Cultural Expression Credits: 3 WGSS 202 also fulfills the Human Diversity Requirement. Available for general education credit. This is a creativity and critical analysis general education course for the Origins and Influences Pathway.

Total Hours for a Major in Nonprofit and NGO Studies: 51-63 (B.A.) OR 61-66 63-68 (B.S.)

Rationale: 1) Add NNGO 351 and NNGO 352 to the Major: Both of these new proposed courses have been taught several times as a Special Topics (NNGO 390) course. Creating stand-alone courses would formalize these courses because they align with our program learning outcomes. It also makes better curriculum sense to remove a special topics course from the required course listing and move that to an elective, since course topics are likely to change. By offering students the ability to choose between

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 99 of 124

one of three courses (NNGO 350, 351 or 352), we would offer these courses in regular rotation which would make it more predictable for students and for the Center to schedule. 2) Substitution of POLS **326 with NNGO 303:** The Center for Nonprofit and NGO Studies would like to develop its own nonprofit management (administration) course as part of the Center requirements for the degree to replace POLS 326. This would help immensely with scheduling of the course around the other NNGO required courses and would align the course with other required courses in the degree for program assessment to ensure student learning outcomes. The NNGO degree is eligible for accreditation and having this course within the Center would assist us with that effort. In addition, the Center takes an interdisciplinary approach to its courses, combining aspects of the humanities (questioning why we do things) and the social sciences (exploring how to do those things) which is a broader approach than the course when taught by political science and public administration. This course would allow better integration of this curriculum approach to a critical course within the NNGO curriculum. The creation of this course within the Center also makes logical sense for students when searching for nonprofit-related courses on campus. This nonprofit administration course would also be specifically designed for students entering the workforce with a bachelor's degree and align with the roles and responsibilities of those new employees in entry-level positions, not management, such as program coordinators, volunteer coordinators, and fundraising assistants. 3) Adding NNGO 301X: We are creating a cross-listed course from PSPA 301 with the approval of the Department of Public Administration faculty. This will allow NNGO to offer this class, which is only required for the NNGO major. 4) Include NNGO 490 in the major: This is correcting an oversight in the catalog. NNGO 490 should have been listed as an elective in the major just as it is in the minor.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.38

Minor in Nonprofit and NGO Studies (18)

Requirements in center (6 9)

- NNGO 100 Community Leadership and Civic Engagement Credits: 3 Available for general education credit. This is a society and culture general education course for the Social Justice and Diversity Pathway.
- NNGO 303 Nonprofit Administration for Social Justice Credits: 3
- NNGO 350 Community Organizations in a Digital World Credits: 3
 OR NNGO 390 Special Topics in Nonprofit and NGO Studies Credits: 3
 - OR NNGO 351 Nonprofit Boards and Governance Credits: 3
 - o OR NNGO 352 Nonprofit Program Development and Evaluation Credits: 3
 - OR NNGO 429 International NGOs and Globalization Credits: 3 NNGO 429 is a writing infused course. *TO EDITOR: This line needs to be indented.

Requirements outside center (12)

<u>—PSPA 326X - Nonprofit Management Credits: 3</u>

OR POLS 326 Nonprofit Management Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 100 of 124

Electives

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Three of the following from three different departments (9)

- ANTH 329 Anthropology and Contemporary World Problems Credits: 3 ANTH 329 also fulfills the Human Diversity Requirement.
- ANTH 429X International NGOs and Globalization Credits: 3 ANTH 429X is a writing infused course.
- ANTH 464 Disasters without Borders Credits: 3 OR NNGO 464X - Disasters without Borders Credits: 3
 - NNGO 301X Philanthropy and Fundraising Credits: 3 • OR PSPA 301 - Philanthropy and Fundraising Credits: 3
- NNGO 350 Community Organizations in a Digital World Credits: 3
- NNGO 351 Nonprofit Boards and Governance Credits: 3
- NNGO 352 Nonprofit Program Development and Evaluation Credits:
- NNGO 390 Special Topics in Nonprofit and NGO Studies Credits: 3
- NNGO 429 International NGOs and Globalization Credits: 3 NNGO 429 is a writing infused course.
 - OR ANTH 429X International NGOs and Globalization Credits: 3 ANTH 429X is a writing infused course.
 - OR SOCI 329X International NGOs and Globalization Credits: 3 SOCI 329X is a writing infused course.
- NNGO 490 Nonprofit and NGO Studies Internship Credits: 1-3
- PSPA 301 Philanthropy and Fundraising Credits: 3
- PSPA 320 Public Service Leadership Credits: 3
- PSPA 326X Nonprofit Management Credits: 3
 OR POLS 326 Nonprofit Management Credits: 3
- PSPA 328 Nongovernmental Organizations and Development Credits: 3
- PSPA 402 Resource Strategies for Nonprofit Organizations Credits: 3
 OR MGMT 402X Resource Strategies for Nonprofit Organizations Credits: 3
- SOCI 329X International NGOs and Globalization Credits: 3
- SOCI 375 Sociology of Organizations Credits: 3
- SOCI 379 Collective Behavior and Social Movements Credits: 3

Rationale: 1) Add NNGO 351 and NNGO 352 to the Minor: Both of these new proposed courses have been taught several times as a Special Topics (NNGO 390) course. Creating stand-alone courses would formalize these courses because they align with our program learning outcomes. It also makes better curriculum sense to remove a special topics course from the required course listing and move that to an elective, since course topics are likely to change. By offering students the ability to choose between one of three courses (NNGO 350, 351 or 352), we would offer these courses in regular rotation which would make it more predictable for students and for the Center to schedule. 2) Addition of NNGO 303 and removal of POLS 326: The Center for Nonprofit and NGO Studies would like to develop its own nonprofit management (administration) course as part of the Center requirements for the degree to replace POLS 326. This would help immensely with scheduling of the course around the other NNGO required courses and would align the course with other required courses in the degree for program assessment to ensure student learning outcomes. The NNGO degree is eligible for accreditation and

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 101 of 124

having this course within the Center would assist us with that effort. In addition, the Center takes an interdisciplinary approach to its courses, combining aspects of the humanities (questioning why we do things) and the social sciences (exploring how to do those things) which is a broader approach than the course when taught by political science and public administration. This course would allow better integration of this curriculum approach to a critical course within the NNGO curriculum. The creation of this course within the Center also makes logical sense for students when searching for nonprofit-related courses on campus. This nonprofit administration course would also be specifically designed for students entering the workforce with a bachelor's degree and align with the roles and responsibilities of those new employees in entry-level positions, not management, such as program coordinators, volunteer coordinators, and fundraising assistants. **3)** Adding NNGO 301X: We are creating a cross-listed course from PSPA 301 with the approval of the Department of Public Administration faculty. This will allow NNGO to offer this class, which is only required for the NNGO major. **4)** Clean-up: Rearranged the PSPA 301/NNGO 301X and NNGO 429/ANTH 429X/SOCI 329X courses so they show as crosslistings instead of separate courses.

<u>Other Catalog Change</u> 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.39

Nonprofit and NGO Studies (12)

Certificate of Undergraduate Study

Coordinator: Christopher Einolf Alicia Schatteman (Acting Director)

The Certificate of Undergraduate Study in Nonprofit and NGO Studies is a pre-professional eurriculum which will provide the student with a credential and solid foundation for public service oriented work. It is a good preparation for those who are seeking to work in a variety of technical or professional fields with nonprofits and government NGOs. Through its course work the certificate provides an understanding between theory and practical application.

The certificate consists of three two core courses and a choice of an electives from one of eight related areas. The core courses focus on and provide engaged learning opportunities.

Required Courses (12)

- NNGO 100 Community Leadership and Civic Engagement Credits: 3 Available for general education credit. This is a society and culture general education course for the Social Justice and Diversity Pathway.
- NNGO 303 Nonprofit Administration for Social Justice Credits: 3
- POLS 326 Nonprofit Management Credits: 3

- OR PSPA 326X - Nonprofit Management Credits: 3

Two of the following (6)

- ANTH 329 Anthropology and Contemporary World Problems Credits: 3
- MKTG 295 Principles of Marketing Credits: 3
- NNGO 301X Philanthropy and Fundraising Credits: 3
 - OR PSPA 301 Philanthropy and Fundraising Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 102 of 124

- NNGO 350 Community Organizations in a Digital World Credits: 3
- NNGO 351 Nonprofit Boards and Governance Credits: 3
- NNGO 352 Nonprofit Program Development and Evaluation Credits 3
- NNGO 390 Special Topics in Nonprofit and NGO Studies Credits: 3
- NNGO 429 International NGOs and Globalization Credits: 3
- NNGO 464X Disasters Without Borders Credits: 3
 - OR ANTH 464 Disasters Without Borders Credits: 3
- PSPA 301 Philanthropy and Fundraising Credits: 3
- PSPA 328 Role of Nongovernmental Organizations in Development Credits: 3
- SOCI 379 Collective Behavior and Social Movements Credits: 3

Rationale: 1) Add NNGO 351 and NNGO 352 to the Certificate: Both of these new proposed courses have been taught several times as a Special Topics (NNGO 390) course. Creating stand-alone courses would formalize these courses because they align with our program learning outcomes. It also makes better curriculum sense to remove a special topics course from the required course listing and move that to an elective, since course topics are likely to change. By offering students the ability to choose between one of three courses (NNGO 350, 351 or 352), we would offer these courses in regular rotation which would make it more predictable for students and for the Center to schedule. 2) Substitution of POLS 326 with NNGO 303: The Center for Nonprofit and NGO Studies would like to develop its own nonprofit management (administration) course as part of the Center requirements for the degree to replace POLS 326. This would help immensely with scheduling of the course around the other NNGO required courses and would align the course with other required courses in the degree for program assessment to ensure student learning outcomes. The NNGO degree is eligible for accreditation and having this course within the Center would assist us with that effort. In addition, the Center takes an interdisciplinary approach to its courses, combining aspects of the humanities (questioning why we do things) and the social sciences (exploring how to do those things) which is a broader approach than the course when taught by political science and public administration. This course would allow better integration of this curriculum approach to a critical course within the NNGO curriculum. The creation of this course within the Center also makes logical sense for students when searching for nonprofit-related courses on campus. This nonprofit administration course would also be specifically designed for students entering the workforce with a bachelor's degree and align with the roles and responsibilities of those new employees in entry-level positions, not management, such as program coordinators, volunteer coordinators, and fundraising assistants. 3) Adding NNGO 301X: We are creating a cross-listed course from PSPA 301 with the approval of the Department of Public Administration faculty. This will allow NNGO to offer this class, which is only required for the NNGO major.

Department of Public Administration

Course Revision

2019-20 Undergraduate Catalog LINK (UG Courses) CLAS19.20.08.40 2019-20 Online Undergraduate Catalog LINK (Course Desc)

PSPA 301 - Philanthropy and Fundraising

Crosslisted as NNGO 301X. Examination of the role of philanthropic activities in a civil society both domestically and internationally. Philanthropy includes volunteerism and monetary donations. Survey of fundraising techniques, ethics, and policies.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 103 of 124

Credits: 3

Rationale: Addition of the NNGO 301X crosslisting to the description.

Department of World Languages and Cultures

<u>Course Deletion</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.08.43</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

FLSP 109 - Introduction to Spanish for Health Care Professionals

Medical Spanish for health care professionals including Hispanic cultural background and language skills, with emphasis on medical vocabulary. No previous knowledge of Spanish required. Credits: 3

Rationale: We would like to delete FLSP 109. It has not been offered since Fall 2017, and did not fill. We have no plans to offer it in the future.

<u>Course Deletion</u> 2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses) <u>CLAS19.20.08.44</u> 2019-20 Online Undergraduate Catalog <u>LINK</u> (Course Desc)

FLSP 209 - Intermediate Spanish for Health Care Professionals

Medical Spanish for health care professionals including Hispanic cultural background and language skills, which builds on FLSP 109. Conducted primarily in Spanish. **Prerequisites & Notes** PRQ: FLSP 109 or consent of department. Credits: 3

Rationale: We would like to delete FLSP 209 since it has not been offered in over 12 years. We have no plans to offer it in the future.

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.08.452019-20 Online Undergraduate Catalog LINK (Course Desc)

FLSP 301 - Advanced Spanish Grammar
Exploration of core areas of Spanish grammar and associated linguistic concepts. Not available for students with credit in FLSP 315.
Prerequisites & Notes
PRQ: FLSP 202 or FLSP 215, or equivalent.
Credits: 3

Rationale: This course has been without a description for many years, so we would like to correct that. The department is offering FLSP 315 as a continuation of 215, so heritage speakers will no longer be

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 104 of 124

taking FLSP 301, as heritage speakers will use 315 to address grammar and composition.

Course Revision2019-20 Undergraduate Catalog LINK (UG Courses)CLAS19.20.08.462019-20 Online Undergraduate Catalog LINK (Course Desc)

FLSP 302 - Advanced Composition in Spanish Enhancing students' understanding of Spanish grammar and vocabulary by writing essays in <mark>Spanish.</mark> PRQ: FLSP 301 <mark>or FLSP 315</mark>.

Rationale: This course has been without a description for many years, so we would like to correct that. The department is offering FLSP 315 as a continuation of 215, so heritage speakers will no longer be limited to taking just FLSP 301, as heritage speakers will use 315 to address grammar and composition. We like to add it as an alternative under the PRQs.

Course Revision	2019-20 Undergraduate Catalog <u>LINK</u> (UG Courses)	CLAS19.20.08.47	
	2019-20 Online Undergraduate Catalog LINK (Cou	(Course Desc)	

FLAL 420 320 - Introduction to Translation Theory Introduction to contemporary translation Taught in English. Prerequisites & Notes PRQ: Junior or senior Sophomore standing. Credits: 3

Rationale: The Department decided to revisit this course. It is an introductory course, so we decided to open it up to sophomores to help students complete the minor in a timely manner by allowing them to start the class earlier than their junior year.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.08.48

World Languages and Cultures (B.A.)

Emphasis 1. French and Francophone Studies Core Requirements (11) ↓

Elective course work from the following (27)

One elective may be a French History course.

- FLAL 415 Internship in World Languages and Cultures Credits: 3
- FLAL 420 320 Introduction to Translation Theory Credits: 3 FLAL 420 320 is a writing infused course.
- FLAL 483 Applied Linguistics and the Romance Languages Credits: 3 FLAL 483 is a writing infused course.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 105 of 124

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• HIST 423 - The French Revolution and Napoleon Credits: 3

Total Hours for Emphasis 1, French and Francophone Studies: 38

Emphasis 2. German Studies Core Requirements (8)

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Elective course work from the following (18)

- FLAL 415 Internship in World Languages and Cultures Credits: 3
- FLAL <u>420</u> <u>320</u> Introduction to Translation Theory Credits: 3 FLAL <u>320</u> is a writing infused course.
- FLGE 400 Special Topics in German Language, Literature, Linguistics or Culture Credits: 3

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Total Hours for Emphasis 2, German Studies: 35

Emphasis 3. Spanish and Hispanic Studies Core requirements (17)

↓ Choose three to four of the following (9-12)

- FLAL 415 Internship in World Languages and Cultures Credits: 3
- FLAL 420 320 Introduction to Translation Theory Credits: 3 FLAL 420 320 is a writing infused course.
- FLAL 483 Applied Linguistics and the Romance Languages Credits: 3
 ↓
- FLSP 491 History of the Spanish Language Credits: 3 FLSP 491 is a writing infused course.

Total Hours for Emphasis 3, Spanish and Hispanic Studies: 38

Rationale: Change in course number for FLAL 420 to FLAL 320.

Other Catalog Change 2019-20 Undergraduate Catalog LINK CLAS19.20.08.49

Minor in World Languages and Cultures

↓ Option: Chinese Studies (24) ↓ Option: Translation for Global Literacy (24)

Requirements

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 106 of 124

For students completing the minor option in Translation for Clobal Literacy, all translation courses (II) and language/linguistic courses (III) should be in the same language.

I. Required

FLAL 420 Introduction to Translation Theory Credits: 3

II. Required: Translation courses

Choose two to three courses from the following list (6-9):

For French majors/minors

- FLFR 302 Introduction to Translation Credits: 3
- FLFR 483 Translation Theory and Practice Credits: 3
- FLFR 484 Advanced Translation Credits: 3

For German majors/minors

- FLCE 302 Reading, Writing, Translating Credits: 3
- FLGE 482 Approaches to Translation Credits: 3
- FLGE 484 Translation Practice Credits: 3

For Spanish majors/minors

- FLSP 483 Techniques of Translation Credits: 3
- FLSP 484 Advanced Translation Credits: 3
- FLSP 489 Consecutive Interpretation: Theory and Practice Credits: 3

III. Required: Language and Linguistics courses

Choose two to three courses from the following list (6-9):

For French majors/minors

- FLFR 301 Breaking it Down: The Structure of French Credits: 3
- FLFR 411 Communicating in Modern French Credits: 3
- FLFR 412 French for Business Credits: 3

For Cerman majors/minors

- FLGE 301 Putting it All Together: Going Beyond the Basics Credits: 3
- FLCE 412 Practical Business German Credits: 3
- FLGE 481 Breaking it Down: The Structure of Modern German Credits: 3

For Spanish majors/minors

- FLSP 301 Advanced Spanish Grammar Credits: 3
- FLSP 302 Advanced Composition in Spanish Credits: 3
- FLSP 414 Spanish Business Communications Credits: 3
- FLSP 480 Introduction to Hispanic Linguistics Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 107 of 124

IV. Required Translation Capstone or Internship (3)

- FLAL 415 Internship in World Languages and Cultures Credits: 3 (topic: translation)
 OR FLAL 421 Senior Capstone in Translation Credits: 3
- Students will take this course during their last semester of enrollment in the Translation for Global Literacy option. In consultation with the instructor, they will be assigned a translation project and will submit a final report and translation, which will reflect the work they have done in previous semesters.

V. Optional

Choose one elective from this group (3)

- ANTH 363 Globalization and Corporate Cultures Credits: 3
- ANTH 427 Economic Anthropology Credits: 3
- COMS 361 Business and Professional Communication Credits: 3
- COMS 362 Intercultural Communication Credits: 3
 Available for general education credit.
 This is a society and culture general education course for the Social Justice and Diversity Pathway.
- MGMT 333 Principles of Management Credits: 3
- MGMT 346 Business Communication Credits: 3
- MKTG 295 Principles of Marketing Credits: 3
- MKTC 325 Buyer Behavior Credits: 3
- MKTG 345 Business Marketing Credits: 3
- MKTC 350 Principles of Selling Credits: 3
- MKTG 355 Multichannel Direct Marketing Credits: 3
- MKTG 365 Principles of Retailing Credits: 3
- MKTG 367 Principles of Global Marketing Credits: 3
- MKTG 370 Principles of Digital Marketing Credits: 3
- MKTG 387 International Study in Marketing Credits: 3
- MKTC 448 Integrated Marketing Communications Credits: 3
- NNGO 429 International NGOs and Globalization Credits: 3

VI. Optional: Study Abroad at or above the 300 level Highly recommended.

Rationale: The department has two faculty who teach translation courses. After conferring with them, we have realized that this minor was poorly conceived. The onus of a required capstone or internship (iv) falls on one faculty member in Spanish and French, an unfair burden as both faculty are tenure-track. We floated the idea of changing the requirement to an option, but both faculty members would like to reimagine the minor so that it includes localization, which is a hot topic throughout the world; however, that requires us to submit a new minor request. Hence, we are deleting this minor. We have roughly five students already signed up for the minor, and our faculty have said that they will work to make sure these students complete the minor as it is written. We will not be accepting any other students until the minor is revamped.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 108 of 124

All University Section

GEC <u>Other Catalog Change</u> 2019-20 Undergraduate Catalog <u>LINK</u>

CLAS19.20.09.01

General Education Requirements

• Knowledge Domain Course Descriptions

Society and Culture Course Descriptions

- ANTH 104 Anthropology of Pop Culture: Making the Familiar Strange Credits: 3
- ENGL 318 Exploring Human Language Credits: 3 ENGL 318 is a writing infused course.
- ENVS 186X Introduction to Environmental Economics Credits: 3
- ENVS 303 Environment in the Social Sciences and Humanities Credits: 3
- ↓
- WGSS 350 Lesbian, Gay, Bisexual, and Transgender Studies Credits: 3 WGSS 350 is also a writing infused course.
 - WGSS 350 also fulfills the Human Diversity Requirement.

Rationale: Addition of the ENVS 186X crosslisting to the Society and Culture gen ed list. The parent course is already included, ECON 186.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.06

Minor in Black Studies (18)

Coordinator: Joseph Flynn, Associate Director of Academic Affairs, Center for Black Studies

The Black studies minor presents an interdisciplinary body of knowledge that examines the histories and cultures of African Americans with an appreciation for the historical, social, and political influences of Africa and the African Diaspora. Among other requirements students must analyze racism and its present-day manifestations in order to promote better understanding among ethnic and racial groups. The Black Studies minor draws heavily on disciplines located in the College of Liberal Arts and Sciences, including but not limited to anthropology, history, political science, and sociology. A maximum of 9 semester hours may be applied toward the minor from any one department with the exception of Black Studies (BKST) courses. Students may apply up to 6 semester hours from their major course of study to the minor.

Check departmental information for additional requirements.

Requirements (18)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 109 of 124

Core Courses (9)

- BKST 200 Racism in American Culture and Society Credits: 3
 Available for general education credit.
 BKST 200 also fulfills the Human Diversity Requirement.
 This is a society and culture general education course for the Social Justice and Diversity Pathway.
- BKST 300 Foundations of Black Studies Credits: 3
 Available for general education credit.
 This is a society and culture general education course for the Learning Pathway.
- BKST 493 Afrocentricity Credits: 3

Additional course work (9)

Three of the following (9)

- ANTH 404 Peoples and Cultures of the Caribbean Credits: 3
- BKST 202 Issues Facing African-American Students Credits: 3
- BKST 211 Educating for Cultural Sensitivity Credits: 3
 Available for general education credit.
 BKST 211 also fulfills the Human Diversity Requirement.
 This is a society and culture general education course for the Sustainability Pathway.
- BKST 219 Introduction to African Studies Credits: 3
 Available for general education credit.
 This is a society and culture general education course for the Global Connections Pathway.
- BKST 302 Topics in Black Studies Credits: 3
- BKST 312 Social Philosophy of Hip Hop Culture Credits: 3
- BKST 316 African-American Critical Thought Credits: 3
- BKST 350 Black Economics Credits: 3
- BKST 402 The Africana Woman Credits: 3
- BKST 405 Contemporary Issues of Black Men Credits: 3
- BKST 410 Psychology of the African American Experience Credits: 3
- BKST 420 Black Religion in America Credits: 3
- BKST 440 Black Liberation Movements Credits: 3
 Available for general education credit.
 This is a society and culture general education course for the Society Justice and Diversity Pathway.
- BKST 445 Independent Study in Black Studies Credits: 1-3
- ECON 341 Economic Area Studies Credits: 3 C. Africa, South of the Sahara
- ENGL 381 American Ethnic Literature Credits: 3 C. African American Literature ENGL 381 is a writing infused course.

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 110 of 124

- ENGL 381 also fulfills the Human Diversity Requirement.
- GEOG 336 Geography of Africa Credits: 3
- HIST 348 African History to 1600 Credits: 3
- HIST 348 also fulfills the Human Diversity Requirement.
- HIST 349 African History Since 1600 Credits: 3
 Available for general education credit.
 HIST 349 also fulfills the Human Diversity Requirement.
 This is a society and culture general education course for the Global Connections Pathway.

 HIST 353 Women in African History Credits: 3
- HIST 353 Women in African History Credits: 3 HIST 353 is a writing infused course. HIST 353 also fulfills the Human Diversity Requirement.
- HIST 354 History of Black American Business and Entrepreneurship Credits: 3 HIST 354 also fulfills the Human Diversity Requirement.
- HIST 355 History of Black American Music Credits: 3
- Available for general education credit.
- HIST 355 is a writing infused course.
- This is a society and culture general education course for the Creativity, Innovation, and Change Pathway.
- HIST 364 African-American History to 1865 Credits: 3
 Available for general education credit.
 HIST 364 also fulfills the Human Diversity Requirement.
 - This is a society and culture general education course for the Origins and Influences Pathway.
- HIST 365 African-American History Since 1865 Credits: 3
 Available for general education credit.
 HIST 265 also foldile the Human Dimension Demonstrated
 - HIST 365 also fulfills the Human Diversity Requirement. This is a society and culture general education course for the Society Justice and Diversity
- Pathway.
 HIST 375 Civil Rights Movement, 1954-1974 Credits: 3 HIST 375 is a writing infused course.
 - HIST 375 also fulfills the Human Diversity Requirement.
- HIST 440 Islam and Colonialism in Africa Credits: 3 HIST 440 is a writing infused course. HIST 440 also fulfills the Human Diversity Requirement.
- HIST 440 also fulfills the Human Diversity Requi
 HIST 441 The African Diaspora Credits: 3
 - HIST 441 also fulfills the Human Diversity Requirement.
- JOUR 490 Ethnic Minorities and the News Media Credits: 3
- POLS 368 Politics of Africa Credits: 3
- SOCI 361 Race and Ethnicity Credits: 3
- THEA 477 African-American Theatre Credits: 3

Rationale: In consultation with the dean of the College of Liberal Arts and Sciences and the office of

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 111 of 124

Academic Diversity, Equity, and Inclusion, we feel that moving the Black Studies minor from Other Academic Units programs to CLAS minors is appropriate. Simply, all of the other ethnic/identity studies minors (Southeast Asian Studies, Latino Studies, Women's and Gender Studies, and LGBTQ+ Studies) are housed in CLAS. The overwhelming majority of the courses constituting the BKST minor are in fact Liberal Arts and Sciences courses. This move would keep us in line with similar programs and more accurately reflect the nature of our courses.

<u>Course Revision</u> 2019-20 Undergraduate Catalog <u>LINK</u>

CLAS19.20.09.09

CLAS19.20.09.10

ECON 186 - Introduction to Environmental Economics *Crosslisted as ENVS 186X.* Overview of economic analyses of environmental issues such as pollution and resource management. Introduction to marginal thinking, market-based solutions, and government management. Focus on current issues and applying economics in an interdisciplinary manner to other environmental fields. Credits: 3

Rationale: Addition of the ENVS 186X crosslisting to the description.

Department of English

Other Catalog Change 2019-20 Undergraduate Catalog LINK

Accelerated B.A. or B.S./J.D. Program in English and the College of Law

Admission

The accelerated program leads As part of the application to the College of Law, applicants must take the LSAT and must receive a score at or above the 50th percentile of the previous year's matriculating law class. Applicants are strongly advised to take the LSAT and submit their application to the College of Law no later than February 15 of the applicant's junior year. Students are encouraged to apply to the program as early as possible during their junior year. Admission will be on a competitive basis, and the likelihood of admission will depend on the number and quality of the applicants to the program, the number and quality of applicants to the College of Law in general, as well as other factors normally considered in admissions decisions by the College of Law.

Curriculum ↓

Rationale: The Law School no longer requires submission of the application by February. The revision is what the Law School has requested in place of the current language.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.12

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 112 of 124

Emphasis 1. Biodiversity and Environmental Restoration (32-38) ↓

Select one of the following humanities and social sciences courses (3)

- ANTH 420 Waterworlds Credits: 3
 - ANTH 420 also fulfills the Human Diversity Requirement.
 - OR ENVS 420X Waterworlds Credits: 3
 - ENVS 420X also fulfills the Human Diversity Requirement.

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- ECON 186 Introduction to Environmental Economics Credits: 3 Available for general education credit.
 - OR ENVS 186X Introduction to Environmental Economics Credits: 3 Available for general education credit.
- ECON 386 Environmental Economics Credits: 3
- WGSS 435 Gender and the Environment Credits: 3 WGSS 435 fulfills the Human Diversity Requirement.
 - OR ENVS 435X Gender and the Environment Credits: 3
 - ENVS 435X fulfills the Human Diversity Requirement.

Rationale: Addition of ENVS 186X to the parent course, ECON 186.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.13

Emphasis 2. Energy Studies (37-38)

↓

Select one of the following humanities and social sciences courses (3)

- ANTH 420 Waterworlds Credits: 3
 - ANTH 420 also fulfills the Human Diversity Requirement.
 - OR ENVS 420X Waterworlds Credits: 3
 - ENVS 420X also fulfills the Human Diversity Requirement.
 - ,
 - ECON 186 Introduction to Environmental Economics Credits: 3 Available for general education credit.
 - OR ENVS 186X Introduction to Environmental Economics Credits: 3 Available for general education credit.
 - ECON 386 Environmental Economics Credits: 3
 ↓
 - PHIL 337 Business Ethics Credits: 3

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 113 of 124

Rationale: Addition of ENVS 186X to the parent course, ECON 186.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.14

Emphasis 3. Nature in Society (30-31)

Electives (15-16)

* Select at least two of the following social science courses (6)

- ANTH 343 Extinction: Where the Wild Things Were Credits: 3
 - OR ENVS 343X Extinction: Where the Wild Things Were Credits: 3
 - \downarrow
- ECON 186 Introduction to Environmental Economics Credits: 3 Available for general education credit.
 - OR ENVS 186X Introduction to Environmental Economics Credits: 3 Available for general education credit.
- ECON 386 Environmental Economics Credits: 3
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- SOCI 386 Peace and Social Justice Credits: 3

Rationale: Addition of ENVS 186X to the parent course, ECON 186.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.15

Emphasis 4. Environmental Policy (30-31)

* Electives (21-22)

Select two of the following policy courses (6)

- ECON 186 Introduction to Environmental Economics Credits: 3 Available for general education credit.
 - OR ENVS 186X Introduction to Environmental Economics Credits: 3 Available for general education credit.
- ECON 260 Principles of Microeconomics Credits: 3
 ↓
- POLS 410 Constitutional Law I Credits: 3

Rationale: Addition of ENVS 186X to the parent course, ECON 186.

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.16

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 114 of 124

Emphasis 5. Water Sciences (38-42)

↓

Select one of the following humanities and social sciences courses.

• ANTH 420 - Waterworlds Credits: 3

ANTH 420 also fulfills the Human Diversity Requirement.

- OR ENVS 420X Waterworlds Credits: 3
- ENVS 420X also fulfills the Human Diversity Requirement.

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- ECON 186 Introduction to Environmental Economics Credits: 3 Available for general education credit.
 - OR ENVS 186X Introduction to Environmental Economics Credits: 3 Available for general education credit.
- ECON 386 Environmental Economics Credits: 3

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• POLS 324 - Politics of Environmental Health and Safety Regulation Credits: 3 POLS 324 is a writing infused course.

Rationale: Addition of ENVS 186X to the parent course, ECON 186.

Department of Geographic and Atmospheric Sciences

Course Revision 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.18

GEOG 201 - Introduction to Human Geography

Introduction to spatial analysis and geographic processes of our world and patterns resulting from human activity. Through the exploration of hHuman geography, and its associated subdisciplines (urban, political, population, economic, etc.) and what is studied by geographers in those areas (sprawl, diffusion, migration, etc.), <u>"space"</u> will be viewed explored from a new perspective, not only theoretical, and abstract, but and applied, as well perspectives. Credits: 3

Rationale: 1) Simplification of wording into making it more catalog-ese. 2) "Spatial analysis" may not be an appropriate term to introduce for a lower level, introductory course in geography.

Department of History

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.19

Accelerated B.A. or B.S./J.D. Program in History and the College of Law

Admission

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 115 of 124

The six-year accelerated program leads As part of the application to the College of Law, applicants must take the LSAT and earn a score at or above the 50th percentile of the previous year's matriculating law class. Applicants are advised to take the LSAT and submit their application to the College of Law no later than February of their junior year. Students are encouraged to apply to the program as early as possible during their junior year. Admission will be on a competitive basis, and the likelihood of admission will depend on the number and quality of applicants to the program, the number and quality of applicants to the College of Law in general, as well as other factors normally considered in admissions decisions by the College of Law.

Curriculum

Rationale: The Law School no longer requires submission of the application by February. The revision is what the Law School has requested in place of the current language.

Department of Philosophy

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.20

Accelerated B.A. or B.S./J.D. Program in Philosophy and the College of Law

Admission

The six-year accelerated program leads As part of the application to the College of Law, applicants must take the LSAT and receive a score at or above the previous year's matriculating law class median. Applicants are advised to take the LSAT and submit their application to the College of Law no later than February of their junior year. Students are encouraged to apply to the program as early as possible during their junior year. Admission will be on a competitive basis, and the likelihood of admission will depend on the number and quality of applicants to the program, the number and quality of applicants to the College of Law in general, as well as other factors normally considered in admissions decisions by the College of Law.

Curriculum ↓

Rationale: The Law School no longer requires submission of the application by February. The revision is what the Law School has requested in place of the current language.

Department of Political Science

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.21

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 116 of 124

Accelerated B.A. or B.S./J.D. Program in Political Science and the College of Law

Admission

The six-year integrated sequence leads As part of the application to the College of Law, applicants must take the LSAT and receive a score at or above the previous year's matriculating law class median. Applicants are advised to take the LSAT and submit their application to the College of Law no later than February of their junior year. Students are encouraged to apply to the program as early as possible during their junior year. Admission will be on a competitive basis, and the likelihood of admission will depend on the number and quality of applicants to the program, the number and quality of applicants to the College of Law in general, as well as other factors normally considered in admissions decisions by the College of Law.

Curriculum

↓

Rationale: The Law School no longer requires submission of the application by February. The revision is what the Law School has requested in place of the current language.

Department of World Languages and Cultures

Other Catalog Change 2019-20 Undergraduate Catalog LINK

CLAS19.20.09.22

Accelerated B.A./J.D. Program in World Languages and Cultures and the College of Law

Admission

The six-year accelerated program leads ... As part of the application to the College of Law, applicants must take the LSAT and must receive a score at or above the 50th percentile of the previous year's matriculating law class. Applicants are strongly advised to take the LSAT and submit their application to the College of Law no later than February 15 of the applicant's junior year. Students are encouraged to apply to the program as early as possible during their junior year. Admission will be on a competitive basis, and the likelihood of admission will depend on the number and quality of the applicants to the program, the number and quality of applicants to the College of Law in general, as well as other factors normally considered in admissions decisions by the College of Law.

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Curriculum ↓
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Rationale: Correction to the title that keeps it consistent with the other accelerated programs. The Law School no longer requires submission of the application by February. The revision is what the Law

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 117 of 124

School has requested in place of the current language.

COLLEGE OF VISUAL AND PERFORMING ARTS

School of Theatre and Dance

Course Revision: 2019-20 Undergraduate Catalog LINK CVPA19.20.05.06

TH-D 205 - Dance Techniques Ballet I

Basic performance techniques in contemporary dance including fundamentals of ballet and modern dance. Concurrent enrollment in multiple sections or topics is permissible with a maximum of 2 semester hours per semester. May be repeated for a maximum of 8 semester hours.

Prerequisites & Notes PRQ: Consent of school.

Credits: 1

<u>Rationale</u>: To create an easier clarification between Ballet and Modern technique classes. Removing the prerequisite opens the class to BFA Acting students, BA Theatre students and non-majors.

Course Revision: 2019-20 Undergraduate Catalog LINK CVPA19.20.05.07

TH-D 207 - Dance Techniques Ballet II

Techniques for performance in contemporary dance including advanced beginning ballet and modern. Concurrent enrollment in multiple sections or topics is permissible with a maximum of 2 semester hours per semester. Proficiency requirement. May be repeated to a maximum of 8 credit hours.

Credits: 1

Rationale: To create an easier clarification between Ballet and Modern technique classes.

Course Revision: 2019-20 Undergraduate Catalog LINK CVPA19.20.05.08

THEA 217 - BFA1 Studio Premier First Year Actors' Showcase ↓

<u>*Rationale*</u>: This course title more accurately reflects current curriculum.

Course Revision: 2019-20 Undergraduate Catalog LINK CVPA19.20.05.09

THEA 407 - Period Style for Actors A. Text Analysis (3)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 118 of 124

B. Physicality (2) ↓

<u>Rationale</u>: This name change is part of a restructuring of the BFA Theatre Arts Emphasis Acting curriculum. The course title listed more accurately represent current curriculum.

Course Revision: 2019-20 Undergraduate Catalog LINK CVPA19.20.05.10

THEA 409 - Advanced Vocal Technique Voice and Speech A. Voice Characterization and Dialects B. Musical Theatre Performance C. Stage Speech Advanced voice work for the actor. Detailed work in voice characterization and dialects, musical theatre performance, and stage speech. Supports technique work in THEA 410. Two semester hours each of A, B, and C required in the acting emphasis. ↓

<u>Rationale</u>: The Performance Area Faculty have decided to restructure the BFA in Theatre Arts: Emphasis Acting Program to better prepare students for current trends in the performing arts industry. This name change is part of the BFA Acting restructuring. Removing A, B and C eliminates outdated requirements.

Course Revision: 2019-20 Undergraduate Catalog LINK CVPA19.20.05.11

THEA 416 - Acting Studio: On-Camera I
↓
Prerequisites and Notes
PRQ: Admission to acting emphasis or consent of school.

<u>Rationale</u>: This course title more accurately reflects current curriculum. The PRQ change is to reflect the fact that all BFA Acting Courses require admission to the BFA Acting Program.

Course Revision: 2019-20 Undergraduate Catalog LINK CVPA19.20.05.12

THEA 463 - Professional Development for the Actor

↓ Prerequisites and Notes: PRQ: Admission to acting emphasis or consent of school.

<u>*Rationale:*</u> This PRQ change is to reflect the fact that all BFA Acting Courses require admission to the BFA Acting Program.

School of Music

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 119 of 124

Other Catalog Change: 2019-20 Undergraduate Catalog LINK CVPA19.20.06.03

Music (B.M.)

, Core Requirements (20-25) <mark>(22-25)</mark>

(Students in the jazz studies area of study must substitute MUSP 203 - <mark>Aural Foundations of Improvisation I (1)</mark> and MUSP 204, - Aural Foundations of Improvisation <mark>I and</mark> II (4) (1), for MUTC 203 and MUTC 204.)

Emphasis 1. Music Education

Requirements in School (83-86) (84-88)

Core Requirements (22-25) See above.

Music Education Emphasis Core <mark>Rr</mark>equirements (26) (25)

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- MUED 350 Middle School/Junior High Music Methods Credits: 3
- MUED 350 is a writing infused course.
- MUED 351 Clinical Experience in Middle School/Junior High Music Credits: 1
- MUED 352 Secondary Music Methods Credits: 3
- MUED 351 Clinical Experience in Middle School/Junior High Music Credits: 1
- MUED 353 Clinical Experience in Secondary Music Credits: 1
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One of the following areas of study (37-39) (37-38)

Instrumental Music (37-38)

Ensembles (7)

- Instrumental ensemble (1)
- MUSE 335 Marching Band Credits: 1
- Required of wind and percussion students only, and must be taken during fall semester for degree credit.

OR other ensemble course for non-wind and percussion students (1)

Other ensemble courses (1)

Course work from the following (1) (1-2)

• MUSE 315 - String Ensemble Credits: 1 ↓

Course work from the following (4-5)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 120 of 124

- MUSE 330 Wind Symphony Credits: 1
- MUSE 331 Wind Ensemble Credits: 1
- MUSE 332 All-University Band Credits: 1
- MUSE 335 Marching Band Credits: 1

Required of wind and percussion students only, and must be taken during fall semester for degree credit.

 MUSE 360 - NIU Philharmonic Credits: 1 OR MUSE 365 - Campus String Orchestra Credits: 1

Vocal Music (37-38)

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Ensembles (7)

Course work from the following (5)

- Vocal Ensemble (1)
- MUSE 342 University Chorus Credits: 1
- MUSE 345 Concert Choir Credits: 1

Other ensemble courses (2)

Requirements outside School (19)

Total Hours for Emphasis 1, Music Education: 103-107

<u>Rationale</u>: Clarification of required credit hours for degree. Clarification of Marching Band requirement: it was listed in two different places, which caused confusion; also, Marching Band does not serve the same pedagogical purpose as the other ensembles with which it was listed. Campus Strings Orchestra is a partnership with Kishwaukee Symphony Orchestra. The faculty would like to see it serve as an elective for students, but not a degree requirement. NIU Philharmonic already provides an orchestra experience and is one of the co-requisites for lessons. "Vocal ensemble" was deleted because it was non-specific.

School of Theatre and Dance

Course Deletion: 2019-20 Undergraduate Catalog LINK CVPA19.20.06.04

THEA 214A - Introduction to Physical Engagement in Performance Credits: 1

Rationale: The Performance Area Faculty have decided to restructure the BFA in Theatre Arts: Emphasis Acting Program to better prepare students for current trends in the performing arts industry. The restructuring process has proven this class to be unnecessary.

Course Deletion: 2019-20 Undergraduate Catalog LINK CVPA19.20.06.05

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 121 of 124

THEA 465 - Managing the Performing Arts Credits: 3

<u>Rationale</u>: The Performance Area Faculty have decided to restructure the BFA in Theatre Arts: Emphasis Acting Program to better prepare students for current trends in the performing arts industry. The restructuring process has proven this class to be unnecessary.

New Course: 2019-20 Undergraduate Catalog

CVPA19.20.06.06

CIP Code: 50.05

THEA 406 - Physicality and Rhetoric for Heightened Language Study and practice of the movement styles and vocal demands necessary for performance of Elizabethan and Restoration/Neoclassic theatre. Continued exploration of the Fitzmaurice system of de-structuring and re-structuring and the Williamson Physical Technique. Topics addressed: Scansion, Imagery, Rhetoric, and use of the voice in outdoor settings.

Prerequisites & Notes PRQ: THEA 310 or consent of school. CRQ: THEA 408

Credits: 2

<u>Rationale</u>: Before this course was offered, students did not have access to dedicated voice and movement work at the end of their training when they need it the most. This course is designed to complement and reinforce the lessons in the capstone acting class, THEA 408 Verse Drama.

Regarding non-duplication, this course is specific to the School of Theatre and Dance.

Course Revision: 2019-20 Undergraduate Catalog LINK CVPA19.20.06.07

THEA 449 - Design and Technology ↓ Credits: 1-3 **3**

<u>Rationale</u>: The class has consistently been offered as a 3-credit course, so this change reflects both practice and intent moving forward.

Other Catalog Change: 2019-20 Undergraduate Catalog LINK CVPA19.20.06.08

Theatre Arts (B.F.A.) ↓ Emphasis 1. Acting

Requirements in School (81) (85)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 122 of 124

- Theatre Arts Core (see above)
- TH-D 205 Dance Techniques Ballet I Credits: 1
- TH-D 206 Modern Dance I Credits: 1
- THEA 214 Introduction to Performance Credits: 3
- THEA 214A Introduction to Physical Engagement in Performance Credits: 1
- THEA 217 BFA1 Studio Premier First Year Actors' Showcase Credits: 1
- ↓.
- THEA 312 Directing I Credits: 3 OR THEA 412 Directing II Credits: 3
- THEA 377 Theatre Performance Practicum Credits: 1
 Students must take 4 semester hours in this course.
- THEA 395 Production Practicum Credits: 1
- THEA 406 Physicality and Rhetoric for Heightened Language Credits: 2
- THEA 407 Period Style for Actors Credits: 2-3 A. Text Analysis Credits: 3 ↓
- THEA 409 Advanced Vocal Technique Voice and Speech Credits: 2 A. Voice Characterization and Dialects
- THEA 410 Acting Styles: Clarity and Character Credits: 3
- THEA 411 Advanced Movement for the Stage Credits: 2
- THEA 414 Actor's Process Integration Credits: 2
- THEA 416 Acting On-Camera I Credits: 3
- THEA 418 Acting On-Camera II: Reel Production Credits: 3
- THEA 463 Professional Development for the Actor Credits: 3
- THEA 465 Managing the Performing Arts Credits: 3
- THEA 466 The Business of Theatre Credits: 1-3 Students must take 3 semester hours in this course.
- THEA 491 Topics in Theatrical Performance Credits: 1-12 Students must take 6 semester hours in this course.
- Electives by advisement (4) (2)
- ↓

<u>Rationale</u>: The Performance Area Faculty have decided to restructure the BFA in Theatre Arts: Emphasis Acting Program to better prepare students for current trends in the performing arts industry. The restructuring process has proven that the students need a second dance class as part of the Program. One class credit will be Ballet and one class credit will be Modern. The restructuring process has proven that THEA 214A, Introduction to Physical Engagement in Performance, is unnecessary. The name change for THEA 217 First Year Actors' Showcase more accurately reflects current curriculum. The option to take either THEA 312 Directing I or THEA 412 Directing II provides a necessary flexibility without sacrificing content essential to completion of the degree. Before new course THEA 406 Physicality and Spoken Rhetoric for Performance in Heightened Language Plays was offered, students did not have access to dedicated voice and movement work at the end of their training when they need it the most. This course is designed to complement and reinforce the lessons in the capstone acting class, THEA 408 Verse Drama. The name changes to THEA 407 A and B and THEA

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 123 of 124

409 more accurately represent current curriculum. The BFA Acting students take 5 semesters of Acting, Voice, and Movement. Regarding f406the addition of THEA 414, the Performance Area faculty realized that the students are missing a course in which they integrate all of this knowledge into a cohesive, linear, and consistent creative process. The students need a course to review and integrate the skills learned, systematize a personal rehearsal and performance process, and apply it to the creation of a role. This course would serve this missing link in the BFA acting students' training and would be offered in the fall semester of the senior year. The restructuring process has proven that THEA 416: Acting On-Camera needs to be a required course within the BFA Acting curriculum. In THEA 418, a new advanced section of the On-Camera acting class, students will apply their skills through various projects and exercises, including partnered reels of original content for screening at the Chicago showcase. This process is designed to prepare each student fully to integrate acting technique and personal preparation for the world of film. The restructuring process has proven that THEA 463: Professional Development for the Actor needs to be a required course within the BFA Acting curriculum. This process has also proven THEA 465: Managing the Performing Arts and THEA 491: Topics in Performance to be unnecessary requirements. As part of the restructuring process, the Performance Faculty have deemed it necessary to reduce the elective credit requirements and to add credit requirements to THEA 377.

 Other Catalog Change:
 2019-20 Undergraduate Catalog LINK
 CVPA19.20.06.09

 Theatre Arts (B.F.A.)
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 Theatre Arts Core (12)
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 Emphasis 2. Design and Technology
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 Requirements in School (82)
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 Two of the following (6)

 THEA 335 - Costume Technology Credits: 3
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 Course work from the following Four of the following (12)

 THEA 435 - Pattern Development Credits: 1-3 3

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 THEA 449 - Design and Technology Credits: 1-3 3

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<u>*Rationale:*</u> This change standardizes the language between the two sections.

Other Catalog Change: 2019-20 Undergraduate Catalog LINK

CVPA19.20.06.10

Dance Performance (B.F.A.) ↓ Requirements in School (74)

SECTION A – Recorded for inclusion in the 2020-21 Undergraduate Catalog p. 124 of 124

↓ Course work from the following (22) TH-D 205 - Dance Techniques Ballet I Credits: 1 TH-D 206 - Modern Dance I Credits: 1 TH-D 207 - Dance Techniques Ballet II Credits: 1 TH-D 208 - Modern Dance II Credits: 1 TH-D 305 - Ballet III Credits: 1 ↓

<u>Rationale</u>: Requirements for the Dance Performance BFA degree are being updated to reflect the division of the Dance Techniques I and II courses into separate courses for Ballet and Modern Dance.

Other Catalog Change: 2019-20 Undergraduate Catalog LINK

CVPA19.20.06.11

Minor in Dance Performance (22) ↓ Requirements (22) ↓ Course work from the following (10) TH-D 205 - Dance Techniques Ballet I Credits: 1 TH-D 206 – Modern Dance I Credits: 1 TH-D 207 - Dance Techniques Ballet II Credits: 1 TH-D 208 – Modern Dance II Credits: 1 TH-D 305 - Ballet III Credits: 1 ↓

<u>Rationale</u>: Requirements for the Minor in Dance Performance are being updated to reflect the division of the Dance Techniques I and II courses into separate courses for Ballet and Modern Dance.