

# University Curriculum Committee

November 14, 2022

ZOOM

2:30pm

## Calling of the Roll

## Announcements

## Old Business

- Medical, Cellular and Molecular Biology Concentration Implementation Fall 2023
  - Approved at the October 17, 2022 UCC meeting. The proposal had a listing of electives which included all courses 3000 to 4999. Instead of having the long list of each number as currently listed, the department seeks approval to simply state BIOL 3000 to 4999 as the electives for simplicity.
- Ecology, Evolution, and Organismal Biology Concentration Implementation Fall 2023
  - Approved at the October 17, 2022 UCC meeting. The proposal had a listing of electives which included all courses 3000 to 4999. Instead of having the long list of each number as currently listed, the department seeks approval to simply state BIOL 3000 to 4999 as the electives for simplicity.
  - Also, in the concentration requirements area there is an option to complete two hours from research, topics or internship. The internship courses were inadvertently missing and the department wishes to remove those from that particular option.

## Meeting Minute Approval

- October 17, 2022 meeting minute approval.

## Consent Agenda Items – All items require final approval by the Provost/SVP Academic Affairs

- **Course Title Updates** **Implementation Fall 2023**
  - BUS 3310 – Business Analytics
    - Updating course title from Data Analytics and Statistics to Business Analytics.
  - CSCI 3005 – Graphical User Interfaces
    - Updating the course title from Object Oriented Programming to Graphical User Interfaces.

- ENGT 3880 – Energy Conversion
  - Updating the course title from Direct Energy Conversion to Energy Conversion
- THEA 4350 – Acting Workshop
  - Updating the course title from Classical Text and Performance to Acting Workshop
- **Course Title Updates** **Implementation Spring 2023**
  - CRJ 3150 – Fundamentals of Corrections
    - Updating the course title from Penology and the Study of Corrections to Fundamentals of Corrections.
  - ENGL 1210 – English as a Second Language I
    - Updating the course title from English as a Second Language to English as a Second Language I to alleviate a duplicate title course.
  - ENGL 1220 – English as a Second Language II
    - Updating the course title from English as a Second Language to English as a Second Language II to alleviate a duplicate title course.
  - MUS 3265 – Functional Techniques for Classroom Instruments
    - Updating the course title from Instrumental Methods for Children’s Music to Functional Techniques for Classroom Instruments.
  - MUS 4550 – Music for Winds and Percussion
    - Updating the course title from Music for the Band to Music for Winds and Percussion.
- **Course Prerequisite Updates** **Implementation Spring 2023**
  - CHEM 4350 – Physical Biochemistry
    - Updating the course prerequisites to CHEM 4310/4311 (Biochemistry I and Lab) and PHYS 2020 (College Physics I and Lab) or PHYS 2120 (University Physics I and Lab) and MATH 1910 (Calculus I) with grades of “C” or higher.
  - CHEM 4351 – Physical Biochemistry Lab
    - Updating the course prerequisites to CHEM 4310/4311 (Biochemistry I and Lab) and PHYS 2020 (College Physics I and Lab) or PHYS 2120 (University Physics I and Lab) and MATH 1910 (Calculus I) with grades of “C” or higher.
- **Course Prerequisite Updates** **Implementation Fall 2023**
  - CSCI 4550 – Computer Graphics
    - Updating the course prerequisites to CSCI 2000 (Programming for STEM) or CSCI 2010 (Introduction to Programming II) and MATH 1920 (Calculus II).

- **Course Deletions**
  - GREK 3510 – Greek Historians
    - This course is no longer necessary as GREK 3999 (Readings in Ancient Greek Literature) has been fully approved within the curriculum.
  - GREK 3610 – Greek Drama
    - This course is no longer necessary as GREK 3999 (Readings in Ancient Greek Literature) has been fully approved within the curriculum.
  - GREK 3620 – Greek Philosophers
    - This course is no longer necessary as GREK 3999 (Readings in Ancient Greek Literature) has been fully approved within the curriculum.
  - GREK 3710 – Greek Lyric Poetry
    - This course is no longer necessary as GREK 3999 (Readings in Ancient Greek Literature) has been fully approved within the curriculum.
  - GREK 3720 – Greek Epic Poetry
    - This course is no longer necessary as GREK 3999 (Readings in Ancient Greek Literature) has been fully approved within the curriculum.
  - GREK 3810 – Greek Rhetoric
    - This course is no longer necessary as GREK 3999 (Readings in Ancient Greek Literature) has been fully approved within the curriculum.
  - GREK 3910 – Hellenistic Prose
    - This course is no longer necessary as GREK 3999 (Readings in Ancient Greek Literature) has been fully approved within the curriculum.
  - GREK 4210 – Greek Prose Composition
    - This course is no longer necessary as GREK 3999 (Readings in Ancient Greek Literature) has been fully approved within the curriculum.
  - LATN 3510 – Latin Historians
    - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
  - LATN 3610 – Latin Drama
    - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.

- LATN 3620 – Latin Letters
  - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
- LATN 3710 – Latin Lyric Poetry
  - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
- LATN 3720 – Later Latin Epic
  - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
- LATN 3810 – Latin Rhetoric
  - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
- LATN 4210 – Latin Prose Composition
  - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
- LATN 4300 – The Roman Novel
  - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
- LATN 4310 – Medieval Latin
  - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
- LATN 4410 – Latin Satire
  - This course is no longer necessary as LATN 3999 (Readings in Latin Literature) has been fully approved within the curriculum.
- MUS 5210 – Music in Special Education
  - This course has not been taught in six years and is only an elective in one of the least popular cognates within Music Education.
- **Course Description Update** **Implementation Spring 2023**
  - GREK 1010 – Introductory Greek I
    - Old Description
 

An introduction, with cultural context, to the ancient Greek language, with emphasis on the written language; elements of Greek grammar and syntax; practice in reading and translation of Classical and New Testament Greek prose.
    - New Description
 

An introduction, with cultural context, to the ancient Greek language, in either the Classical

or Biblical Greek dialects (full sequences of each dialect will rotate year-to-year), with emphasis on the written language; elements of Greek grammar and syntax; practice in reading and translation of Classical or New Testament Greek prose (depending on sequence rotation.)

- GREK 1020 – Introductory Greek II
  - Old Description

An introduction, with cultural context, to the ancient Greek language, with emphasis on the written language; elements of Greek grammar and syntax; practice in reading and translation of Classical and New Testament Greek prose.
  - New Description

A continued introduction, with cultural context, to the ancient Greek language, in either the Classical or Biblical Greek dialects (full sequences of each dialect will rotate year-to-year), with emphasis on the written language; elements of Greek grammar and syntax; practice in reading and translation of Classical or New Testament Greek prose (depending on sequence rotation).
  
- STAT 4290 – Introduction to Predictive Analytics
  - Old Description

Advanced statistical techniques for analyzing large and high dimensional data. Topics include data mining strategy, data processing, predictive modeling techniques for decision making, model assessment and comparison. This course will be taught using appropriate statistical software.
  - New Description

Advanced statistical techniques for analyzing large and high dimensional data. Topics include data mining strategy, data processing, data visualization, data issues and resolutions, predictive modeling techniques for decision making, model assessment and comparison. This course will be taught using appropriate statistical software (such as R or SAS or Python) .
  
- **Course Description Update** **Implementation Fall 2023**
  - BUS 3310 – Business Analytics
    - Old Description

The acquisition, organization, and use of data in decision making in business.
    - New Description

Acquisition, analysis, and visualization of data to inform business decision making, improve organizational communication, support operations, and assure quality. Topics include data visualization, descriptive analytics, diagnostic analytics, predictive analytics, regression models, and data modeling using spreadsheet.
  
  - AVI 1100 – Rotor-Wing Private Pilot Lab I
    - Old Description

Flight instructor assisted application of flight to include private pilot flight maneuvers, procedures & regulations associated with takeoff, cruise, traffic pattern operations, approach,

emergencies, and cross-country operations. This course develops basic rotor wing flight skills necessary for the students' solo flights.

- New Description

Flight instructor assisted application of flight to include private pilot flight maneuvers, procedures & regulations associated with takeoff, cruise, traffic pattern operations, approach, emergencies, and cross-country operations. This course develops basic rotor wing flight skills necessary for the students' solo flights. Actual flight hours: 18.

- AVI 2100 – Rotor-Wing Private Pilot Lab II

- Old Description

This course introduces the student to solo flights. Topics covered include airport operations, communications, aircraft start-up & shutdown, hover, taxi, take-off, landing, autorotation, various ground reference maneuvers, emergencies and aeronautical decision making. Students will conduct multiple solo flights for Private Pilot certification.

- New Description

This course introduces the student to solo flights. Topics covered include airport operations, communications, aircraft start-up & shutdown, hover, taxi, take-off, landing, autorotation, various ground reference maneuvers, emergencies and aeronautical decision making. Students will conduct multiple solo flights for Private Pilot certification. Actual flight hours 19.5.

- AVI 2120 – Instrument Flight Operations Lab I

- Old Description

Students demonstrate their ability to fly and navigate a rotor wing aircraft using only flight instruments. Students will learn to operate the aircraft without visual references under instrument flight rules (IFR).

- New Description

Students demonstrate their ability to fly and navigate a rotor wing aircraft using only flight instruments. Students will learn to operate the aircraft without visual references under instrument flight rules (IFR). Actual flight hours: 17.5.

- AVI 2140 – Instrument Flight Operations Lab II

- Old Description

In this continuation of AVI 2120, students will improve their ability to fly and navigate a rotor wing aircraft using only flight instruments. Students will learn to operate the aircraft without visual references under instrument flight rules (IFR) in a real ATC environment.

- New Description

In this continuation of AVI 2120, students will improve their ability to fly and navigate a rotor wing aircraft using only flight instruments. Students will learn to operate the aircraft without visual references under instrument flight rules (IFR) in a real ATC environment. Actual flight hours: 20.

- AVI 3100 – Commercial Flight Operations Lab I

- Old Description

Students will demonstrate their navigation skills necessary for long distance flights. Multiple

- flights will be conducted where students must use the navigation skills learned from AVI 1060 to locate a specific coordinate and execute a flight plan to the specific coordinate.
- **New Description**  
Students will demonstrate their navigation skills necessary for long distance flights. Multiple flights will be conducted where students must use the navigation skills learned from AVI 1060 to locate a specific coordinate and execute a flight plan to the specific coordinate. Actual flight hours: 20.5.
  - **AVI 3120 – Commercial Flight Operations Lab II**
    - **Old Description**  
Students will demonstrate their navigation skills necessary for long distance flights. Multiple flights will be conducted where students must use the navigation skills learned from AVI 1060 to locate a specific coordinate and execute a flight plan to the specific coordinate.
    - **New Description**  
Students will demonstrate their navigation skills necessary for long distance flights. Multiple flights will be conducted where students must use the navigation skills learned from AVI 1060 to locate a specific coordinate and execute a flight plan to the specific coordinate. Actual flight hours: 27.5.
  - **AVI 3140 – Certified Flight Instructor Lab I**
    - **Old Description**  
The student will act as a flight instructor where a CFI is onboard as a student. Students will be required to demonstrate their ability to teach rotor wing aircraft preparation for flight, lift-off procedures, hovering, turns, autorotation, and landing.
    - **New Description**  
The student will act as a flight instructor where a CFI is onboard as a student. Students will be required to demonstrate their ability to teach rotor wing aircraft preparation for flight, lift-off procedures, hovering, turns, autorotation, and landing. Actual flight hours: 13.5
  - **AVI 4100 – Certified Flight Instructor Lab II**
    - **Old Description**  
Continuation of AVI 3140 where the student demonstrates the ability to teach advanced flight operations and maneuvers.
    - **New Description**  
Continuation of AVI 3140 where the student demonstrates the ability to teach advanced flight operations and maneuvers. Actual flight hours: 14.
  - **AVI 4120 - Certified Flight Instructor Instrument Lab**
    - **Old Description**  
CFIs demonstrate their ability to instruct on instrument flight in a rotor-wing aircraft. Both night and day flights will be used for evaluation of the CFI's ability to teach instrument flight.

- **New Description**  
CFIs demonstrate their ability to instruct on instrument flight in a rotor-wing aircraft. Both night and day flights will be used for evaluation of the CFI's ability to teach instrument flight. Actual flight hours: 17.
- **CSCI 3005 – Graphical User Interfaces**
  - **Old Description**  
An introduction to object-oriented programming. Topics include classes, encapsulation, inheritance, polymorphism, templates, container classes, object-oriented design, and the use of class libraries.
  - **New Description**  
An introduction to designing graphical user interfaces (GUI) using modern languages and libraries. Covers GUI widgets and layout, as well as how to respond to events caused by interaction with the components.
- **CSCI 4018 – Cloud Computing**
  - **Old Description**  
Introduction to cloud computing and developing applications for the cloud. Topics include basic cloud concepts, cloud services and platforms, distributed processing framework, and cloud security.
  - **New Description**  
An overview of cloud computing ecosystems, platforms, and methods of application development and deployment. Students will be introduced to basic cloud concepts including service, platforms, and approaches to distributed processing and data storage. Students will gain experience developing cloud-based applications.
- **CSCI 4550 – Computer Graphics**
  - **Old Description**  
Computer graphics for computer science or mathematics students with emphasis on implementation details, algorithms, transformations, coordinates, color models, interactive graphics, and graphics standard languages. Raster and vector graphics, color and black and white, will be studied using various hardware devices. PostScript and device-dependent languages may be explored.
  - **New Description**  
This course covers the algorithms, data structures and mathematics used in the field of computer graphics. Topics will include algorithms, geometrical transformations, color models, light and shading, ray tracing, and rendering. Students will implement the algorithms in computer code.
- **ENGT 1000 – Introduction to Engineering and Engineering Technology**
  - **Old Description**  
Overview of engineering and technology; fields of engineering and the engineering profession; the engineering design cycle; degree programs in engineering and engineering technology; academic training; careers and job expectations; and problem solving skills.



- **New Description**  
Introduction to concepts in engineering and technology including the engineering design cycle; physical, economic, social and environmental considerations, trade-offs, design codes and standards, and safety. Ethical considerations in engineering and technology. Degree and career planning. Introduction to concepts of Industry 4.0 and the Industrial Internet of Things (IIoT).
- **ENGT 1200 – Applied Mathematics for Engineering Technology**
  - **Old Description**  
Topics from Algebra, Geometry, and Trigonometry for engineering technology applications, including right triangles and trigonometric functions, exponential and logarithmic functions, and complex numbers. Students must complete any enhanced math requirements before taking this course.
  - **New Description**  
Applications of Mathematics for use in Engineering Technology programs. Topics from Algebra, Geometry, and Trigonometry for engineering technology applications, including right triangles and trigonometric functions, exponential and logarithmic functions, vectors and complex numbers.
- **ENGT 1400 – Applied Calculus for Engineering Technology**
  - **Old Description**  
Coverage includes application of calculus in technology, derivatives, applications of derivatives, direct integration, integration by use of tables, applications of integration, topics from analytic geometry.
  - **New Description**  
Applications of Calculus for use in Engineering Technology programs. Topics include derivatives, applications of derivatives, direct integration, integration by use of tables, applications of integration and topics from analytic geometry.
- **ENGT 2000 – Manufacturing Processes**
  - **Old Description**  
Principles, processes and problems associated with conversion of engineering materials into useful forms and goods; machining operations using traditional and computer numerical controlled machine tools.
  - **New Description**  
Principles, processes and problems associated with conversion of engineering materials into useful forms and goods; machining operations using traditional and computer numerical controlled machine tools. Introduction to Industry 4.0 / Industrial Internet of Things (IIoT) in Manufacturing Processes.
- **ENGT 2010 – DC Circuits and Applications**
  - **Old Description**  
Analysis of electrical measurements direct current circuits; Ohms Law, series and parallel circuits, Kirchoff's Laws, and selected network theorems including superposition, Thevenin's, and Norton's theories applied to DC circuit.

- **New Description**  
Analysis of electrical measurements in direct current circuits; Ohm's Law, series and parallel circuits, Kirchoff's Laws, and selected network theorems including superposition, Thevenin's, and Norton's theories applied to DC circuit analysis.
- **ENGT 2020 – Robotics Fundamentals**
  - **Old Description**  
Topics include history of robotics, terminology, classifications, end-of-arm tooling, sensing, control, applications, safety, development, future trends and social impact. Using hands-on activities the students will program robots for some simple tasks.
  - **New Description**  
Topics including history of robotics, terminology, classification, end-of-arm tooling, sensing, control, applications, safety and the role of robotics in Industry 4.0 / Industrial Internet of Things (IIoT). Using hands-on activities, the students will learn beginning programming methods with industrial robots to complete a series of basic tasks.
- **ENGT 2030 – AC Circuits and Applications**
  - **Old Description**  
Analysis of alternating current circuits, inductance, capacitance, reactance, impedance, Kirchoff's Laws, selected network theorems including superposition, Thevenin's, and Norton's theories applied to AC circuit analysis. Introduction to resonance and filter circuits.
  - **New Description**  
Analysis of alternating current circuits, inductance, capacitance, reactance, impedance, Kirchoff's Laws, selected network theorems including superposition, Thevenin's, and Norton's theories applied to AC circuit analysis. Introduction to resonance, and filter circuits.
- **ENGT 2200 – Electronics Fundamentals I**
  - **Old Description**  
Introduction to semiconductor electronic devices: diodes and applications, transistors - Bipolar Junction Transistor (BJT) operation, biasing, small signal amplifiers, Field Effect transistors (FET), and other components. Analysis of Class A, Class B, and Class C power amplifiers.
  - **New Description**  
Introduction to semiconductor and electronic devices, diodes and transistors, Bipolar Junction Transistor (BJT) biasing and operation, small signal amplifiers, Field Effect Transistors (FET), and switches. Analysis of Class A, Class B, and Class C power amplifiers.
- **ENGT 2220 – Digital Design I**
  - **Old Description**  
The study of digital combinational circuits. Topics include number systems, logic gates, Boolean algebra, and logic simplicity, Karnaugh mapping and functions of combinational logic. Students will solve selected problems by application of circuits.
  - **New Description**  
The study of digital combinational logic circuits. Topics include number systems, logic gates, Boolean algebra, and logic simplification, Karnaugh mapping and functions of combinational

logic. Students will solve problems as applied to real-world applications.

- ENGT 2240 – Electronics Fundamentals II
  - Old Description

Advanced topics in electronics. Use of operational amplifiers and integrated circuits, operational amplifier applications, oscillators, active filters, voltage regulators, and controlled voltage regulators.
  - New Description

Advanced topics in electronics. Applications of operational amplifiers and integrated circuits, oscillators, active filters, and voltage regulators.
  
- ENGT 2250 – Digital Design II
  - Old Description

The study of digital sequential logic. Topics include latching, flip-flops, counter circuits, coding, timing, shift registers, data transmission, memory, and storage. Further study of Karnaugh mapping in sequential circuits.
  - New Description

The study of digital sequential logic circuits. Topics include latches, flip-flops, counter circuits, timers, shift registers, data transmission, memory, and storage. Further study of Karnaugh mapping in sequential circuits.
  
- ENGT 2260 – Microcontrollers
  - Old Description

An explanation of basic principles of a microcontroller from the ground up. Topics include microcontroller concepts, architecture, addressing modes, scaling operations, instruction types, stack operations, and interrupt handling. C programming and assembly language are used. The Freescale HCS12 microcontroller will be used for hands-on learning.
  - New Description

An explanation of basic principles of a microcontroller from registers and memory to external I/O. Topics include microcontroller concepts, architecture, addressing modes, scaling operations, instruction types, stack operations, and interrupt handling. C programming and assembly languages are used. Includes microcontroller-based hands-on learning and embedded systems.
  
- ENGT 2730 – Introduction to Solid Modeling
  - Old Description

Introduction to solid modeling for the design of parts and assemblies. Basic techniques for generating 3D solid models and assemblies. Generation of 2D engineering drawings from 3D solid models.
  - New Description

Introduction to solid modeling for the design of parts and assemblies. Basic techniques for creating 3D solid models of parts and assemblies of parts; generation of 2D engineering drawings from 3D solid models. Introduction to concepts of geometric dimensioning and tolerancing (GD&T).

- ENGT 3000 – Materials Science
  - Old Description
 

Introduction to structure, properties, and manufacture of engineering materials including polymers, metals, ceramics, and composites. Atomic, molecular, and crystal structures; crystal geometry and growth will be related to electrical and mechanical properties.
  - New Description
 

Survey of materials for manufacturing and other engineering technology applications. Introduction to structure, properties, and manufacture of engineering materials including polymers, metals, ceramics, and composites. Effects of material structure down to the atomic level on physical, electrical and mechanical properties. Emphasis on manufacturing and procurement.
  
- ENGT 3010 – Engineering Economics
  - Old Description
 

Basics of economic decision-making common to industrial management and personal finance. Time value of money and other commonly used measures for its present or future worth are compared in investment decisions.
  - New Description
 

Basics of economic decision-making common to industrial management and personal finance. Time value of money and other commonly used measures are compared to select the most economically feasible alternative.
  
- ENGT 3020 – Statics and Strength of Materials
  - Old Description
 

Analysis of forces acting on a body at rest, equilibrium of rigid body, friction, center of gravity, moment of inertia, stresses and strains, torsion, shear, bending moment, deflection, Mohr's circle and column design.
  - New Description
 

Principles of mechanics applied to objects at rest; equilibrium; balance of forces; friction; center of gravity and moments of inertia. Concepts of strength of materials for design applications: stresses and strains, torsion, shear, bending, deflection, Mohr's circle, and buckling.
  
- ENGT 3050 – Problem Solving in Engineering Technology
  - Old Description
 

Creative and analytic methods for solving technological problems. Creative strategies; problem definition; finding solutions; implementation and evaluation. Mathematical tools applied to technological problems.
  - New Description
 

Creative and analytic methods for problem-solving in engineering technology. Creative strategies; problem definition; finding solutions; implementation, and evaluation. Techniques for working in teams. Computer software and mathematical tools applied to

aspects of problem-solving including processing and presenting the information. Intended for students in their third year before their senior capstone.

- ENGT 3100 – Robotic Applications
  - Old Description

Applications of robots in various areas; case studies of robotic application related improvement in industries; hands-on Fanuc, Adept, and Mitsubishi robot programming and implementation.
  - New Description

Applications of robots in various areas; case studies of robotic application related improvement in industries with an emphasis on current Industry 4.0 / Industrial Internet of Things (IIoT) Standards. Using hands-on activities, students use intermediate programming methods with industrial robots to complete a series of specialized tasks.
  
- ENGT 3130 – Additive Manufacturing Technology
  - Old Description

This course will cover a brief history and development of Rapid Prototyping (RP) technology, compare Additive Manufacturing (AM), Subtractive Manufacturing (SM), introduce AM technologies and their base materials. There will be hands-on labs to design parts on CAD, produce them with 3D printers, and visit metal deposition technology centers.
  - New Description

The history and development of Additive Manufacturing (AM) technology and its role in Industry 4.0 Applications. Designing for AM Applications. Compare and contrast AM vs Subtractive Manufacturing (SM) and Formative Manufacturing (FM) techniques. Comparison of AM Technology capabilities and materials. Course will include hands-on labs to design parts, produce them with 3D printers.
  
- ENGT 3280 – Communication Systems I
  - Old Description

Introduction to communications systems with emphasis on the theory of Amplitude Modulation (AM)/demodulation, Frequency Modulation (FM)/demodulation, and Side Bands. Transmission and reception techniques.
  - New Description

Introduction to communications systems with emphasis on the theory of Amplitude Modulation (AM)/Demodulation, Frequency Modulation (FM)/Demodulation, and Side Bands. Transmission and reception techniques.
  
- ENGT 3650 – Statistical Quality Control
  - Old Description

Basic principles and techniques of quality control and its applications to manufacturing process. Emphasis on process control, sampling inspections, reports and records based on statistical analysis.
  - New Description

Basic principles and techniques of quality control and its applications to manufacturing processes. Emphasis on process control, sampling inspections, reports and records based on

statistical analysis.

- ENGT 3820 – Technology and Society
  - Old Description

Overview of technology and the effects of technical innovations on society. Physical, economic, and societal aspects in technical decision-making. Ethics in technology. Examination of the public image of technology and its impact on society. Focus on developing technical literacy and preparing students to make informed decisions on technological issues.
  - New Description

Technological and Engineering Literacy for non-majors. Technology in a broad sense; issues, concerns, and impacts of technology on society. Overview of engineering for non-engineers. Physical, economic, societal aspects and trade-offs. Ethical issues in engineering and technology. Focus on helping students understand and apply knowledge of engineering and technology.
  
- ENGT 3840 -Dynamics
  - Old Description

Fundamental principles of dynamics applied to predicting the motion of particles, collections of particles, and rigid bodies. Introduction to mechanical vibrations.
  - New Description

Fundamental principles of dynamics applied to understand and predict the motion of objects as particles and as rigid bodies. Introduction to vibrations.
  
- ENGT 3880 – Energy Conversion
  - Old Description

Theory and application of devices used to convert types of energy into usable electrical energy. Fuel cells, solar collection devices, thermal conversion devices, fluid dynamic devices to include magnetohydrodynamics, will be studied. Energy loss and ways of measuring losses will be applied to measuring efficiency of conversion devices.
  - New Description

Methods for using solar, wind, chemical, waste heat, and other energy sources to produce useful power. Theory and application of solar collection devices, geothermal energy sources, fuel cells and other power generating technology. Energy loss and methods of measuring losses will be applied to determine the efficiency of conversion devices.
  
- ENGT 4130 – Additive Manufacturing Applications
  - Old Description

Student project teams will design a product that is difficult or impossible to fabricate using SM technology, and then utilize the AM technologies available in the lab to fabricate the product. Students will search current AM R&D and application information and make presentations to share in class.
  - New Description

Student project teams will design a product that is difficult or impracticable to fabricate using

Subtractive Manufacturing (SM) technology, and then utilize the Additive Manufacturing (AM) technologies available in the lab to fabricate the product. Students will research current or future (Industry 4.0) AM Applications and present the results of their research.

- ENGT 4150 – Programmable Logic Controls
  - Old Description  
Introduction to programmable logic controllers (PLC), PLC components, programming in binary logic (Boolean Logic), counter and timer, memory organization and data manipulation. Students will learn various control diagrams, programming languages and control circuits; and will program various PLCs for hands-on controls.
  - New Description  
Introduction to programmable logic controllers (PLC), PLC components, programming in Boolean Logic, counter and timer, memory organization and data manipulation. Students will learn various control diagrams, PLC programming languages and control circuits; and will program various PLCs for hands-on learning.
  
- ENGT 4210 – Industrial Automated Systems
  - Old Description  
Introduction to fundamentals of control systems beginning with analog analysis and mechanical concepts such as gears, springs, friction and inertia, and covers feedback control theory that links electrical and mechanical concepts.
  - New Description  
Introduction to Industrial Control Systems, Interfacing Devices, Process Control, and Instrumentation - Proportional (P), Integral (I), Derivative (D), PI and PID controls; tuning of closed-loop systems; Industrial Detection Sensors and Interfacing; Motion Control; Includes circuit simulation.
  
- ENGT 4220 – Communication Systems II
  - Old Description  
Transmitting medium and methods of getting signals from transmitters to receivers such as transmission lines, wave propagation, antennas, waveguides and radar, microwave and lasers, and fiber optics are covered. Students will prepare a capstone design project proposal including system requirements, selection of hardware, software, timetable, tasks, budget and interim report.
  - New Description  
Transmitting medium such as transmission lines, methods of getting signals from transmitters to receivers wave propagation, antennas, waveguides and radar, microwave and lasers, and fiber optics. Students will prepare a capstone project proposal including system requirements, selection of hardware, software, schedule, tasks, budget, and interim report.
  
- ENGT 4250 – Linear Electronics and Capstone Experience
  - Old Description  
Linear electronics circuits and devices; circuits applications; analyzing, and performance modeling and of operational amplifiers and other devices. Completion of capstone project

for electronics option, this integrating experience requires students to work on project deliverables and final report.

- **New Description**

Linear electronics circuits and devices; circuits applications; analyzing, and performance modeling of operational amplifiers and other devices. Completion of capstone project. This integrating experience requires students to work on project deliverables including a final report.

- **ENGT 4710 – Fluid Mechanics**

- **Old Description**

Physical phenomenon of fluid flows in closed pipes and open channels using fundamental laws and empirical formulae. Fluid properties, manometry, fluid pressure, quantity of flow, submerged bodies, and buoyancy.

- **New Description**

Physical phenomenon of fluid flows in closed pipes and open channels using fundamental laws and empirical formulae. Fluid properties, manometry, fluid pressure, quantity of flow, submerged bodies, and buoyancy will be studied.

- **ENGT 4730 – Applied Solid Modeling**

- **Old Description**

Applications of solid object modeling using Pro Engineer software. Generation of 3D solid models of complex objects and traditional 2D engineering drawings including sections, elevations, and auxiliary views from solid models. Use of solid models in engineering design and analysis.

- **New Description**

Applications of solid object modeling using industry-standard solid modeling software. Advanced topics in generation of 3D solid models, 2D engineering drawings, and assemblies. Geometric dimensioning and tolerancing (GD&T) applications with solid models; GD&T notation in drawings. Use of solid models in engineering design and analysis.

- **ENGT 4800 – Machine Design**

- **Old Description**

Overview of machines, mechanical systems, and machine dynamics. Transmission components and applications. Machine element design based on strength of materials. Machine element failure. Introduction to machine operation, maintenance, and condition monitoring.

- **New Description**

Overview of machines, and mechanical systems with an emphasis on manufacturing applications. Machine element design based on strength of materials and failure theory analysis. Maintenance, operation, and safety issues.

- **ENGT 4820 – Vibrations and Noise in Mechanical Systems**

- **Old Description**

Basic concepts of vibration analysis in mechanical systems. Theory and application to noise,



- vibration, and harshness (NVH) problems in vehicles and other systems. Acoustics, measurement of vibration and noise.
- New Description
 

Basic concepts of vibration analysis in mechanical systems. Theory and application to noise, vibration, and harshness (NVH) problems in vehicles and other systems.
  - ENGT 4850 – Computer Integrated Manufacturing
    - Old Description
 

Introduction to the manufacturing enterprise, manufacturing systems; computer integration in product design, production and operations planning and scheduling, production process systems, production support systems, and enterprise resources.
    - New Description
 

Introduction to the manufacturing enterprise, manufacturing systems; computer integration in product design, production process systems, production support systems, and enterprise resources. Role of advanced concepts of Industry 4.0 / Industrial Internet of Things (IIoT) in manufacturing enterprises.
  - ENGT 4880 – Refrigeration Machines and Power Systems
    - Old Description
 

Application of thermodynamic principles to understanding and improving power systems and refrigeration machines. Rankine, Otto, Diesel, and Brayton cycles for power; vapor compression and absorption machines for refrigeration.
    - New Description
 

Application of thermodynamic principles to understand and improve power systems and refrigeration machines. Rankine, Otto, Diesel, and Brayton cycles for power; vapor compression and absorption machines for refrigeration.
  - ENGT 4895 – Mechanical Capstone
    - Old Description
 

An integrated work experience allowing students to apply the knowledge gained from the Engineering Technology core and mechanical specialization courses. Students will be required to solve real problems relevant to mechanical engineering technology by developing a strategy for problem resolution and applying the strategy for project completion.
    - New Description
 

n integrated work experience allowing students to apply the knowledge gained from the Engineering Technology core and mechanical concentration courses. Students will be required to solve real problems relevant to mechanical engineering technology by developing a strategy for problem resolution and applying the strategy for project completion.
  - THEA 3010 – Theatre History I
    - Old Description
 

Examines history and theory of theatrical art of the Classical Era, Middle Ages, and Renaissance in Western Europe. Emphasizes theatrical space, production, and performance.
    - New Description
 

Examines history and theory of pre-18th century theatrical and ritual practices, middle ages,

and renaissances from various cultures. Emphasizes theatrical space, production, literature, and performance.

- THEA 4350 – Acting Workshop
  - Old Description

This course is designed for the advanced acting student to explore alternative approaches to creating a role through scene study and in-depth performance techniques. the course may include; but is not limited to, research into contemporary trends of performance, studying a particular playwright’s canon or acting theorists’ work. The course may be repeated up to a total of six credit hours.
  - New Description

This course is designed for the advanced acting student to explore alternative approaches to creating a role through scene study and in-depth performance techniques. The course may include, but is not limited to: research into contemporary performance trends, audition technique, classical text, and focused study of a particular playwright's canon or acting theorist's work. This course may be repeated up to a total of nine credit hours.
  
- **Change in Course Credit Hours** **Implementation Fall 2023**
  - ASIA 4999 – Asian Studies Portfolio
    - Updating the credit hours from one to three. This change in credit hours for beginner languages provides an opportunity to enhance the capstone course.
  
- **Change in Course Credit Hours** **Implementation Spring 2023**
  - PSYC 4850 – Honors: Field Experience
    - Updating the credit hours to variable. Allowing students to take the course up to six hours and up to two times depending on the number of credit hours the student registers for.
  
- **Change in Course Number** **Implementation Fall 2023**
  - THEA 4350 – Acting Workshop
    - Updating the course number from 3300 to 4350. This will consolidate a course and allow the department to offer the course with a range of topics.
  
- **Minor Program Descriptions** **Implementation Spring 2023**
  - Applied Statistics
    - Adding a minor description so students are able to clearly understand the minor and what they would learn if declared.
  - Geology Minor
    - Adding a minor description so students are able to clearly understand the minor and what they would learn if declared.

## Action Agenda Items

### College of Arts and Letters

Department of Languages and Literature – represented by Osvaldo Di Paolo

Undergraduate Program Modification – Final approval required by the Provost/SVP Academic Affairs

1. Spanish, BA Implementation Fall 2023
  - Adjust concentration requirements to allow for more flexibility.
  - Reduce required hours from 43 to 37.
  - Allow more course options and less rigid curriculum.

Undergraduate New Course – Final approval required by the Provost/SVP Academic Affairs

2. WGST 3090 – Queer Film Implementation Spring 2023
  - Analyzes the representation of LGBTQ characters in film, as well as the work of queer directors and the development of a distinctive queer film canon. Considers queer cinema’s complex relationship to audience and double audiences, the reinvention of traditional cinematic genres (such as romantic comedy, melodrama, horror), and the depiction of how sexuality intersects with race and class.

Department of History and Philosophy – represented by Gregory Hammond

Undergraduate Program Modification – Final approval required by the Provost/SVP Academic Affairs

3. Asian Studies Minor Implementation Fall 2023
  - Updating the minor requirements to reflect the changes in the credit hours for the beginner language courses.
4. Philosophical Studies concentration in BA/BS Philosophy and Religion Implementation Fall 2023
  - Updating the requirements to have a new Philosophy and Religion core added. They will have an option of completing PHIL 3050 (Religious Ethics) or PHIL 4500 (Philosophy of Religion). This addition helps to add a Religious Studies component.

Department of Music – represented by Kristen Sienkiewicz

Graduate New Course – Final approval required by the Provost/SVP Academic Affairs

5. MUS 5775 – Folk Music Ensemble Implementation Spring 2023
  - The purpose of level five (5xxx) ensembles is to refine professional-level musicianship and artistry, and provide opportunity for student leadership in ensembles. Open to all graduate students by audition or with permission of instructor.

Department of Theatre and Dance – represented by Dale Pickard

Undergraduate New Course – Final approval required by the Provost/SVP Academic Affairs

6. THEA 4510 – Stage Management Seminar Implementation Fall 2023
- Course material will cover Theatre Unions and Theatrical Health and Safety on a rotating basis. Theatre Unions material will be offered in the Spring of odd years and will cover information on theatrical unions such as AEA, IATSE, and SDC. Theatrical Health and Safety will be offered in the Spring of even years and will cover information related to OSHA, as well as CPR/First Aid Certification. This course may be repeated for a total of six credit hours.

## **College of Behavioral and Health Sciences**

Department of Health and Human Performance – represented by Tim Leszczak

Undergraduate Program Modification – Final approval required by the Provost/SVP Academic Affairs

7. Sport and Wellness Specialization in BS HHP Implementation Fall 2023
- Removing the required concentration courses.
  - Updating the course elective groups to have more choices as well as adding two new courses in group 3 (HHP 2040 – Youth Sports- Trends and Issues and HHP 4240 – Intro to Motor Learning)

Department of Psychological Science and Counseling – represented by Nicole Knickmeyer

Undergraduate Course Revise – Final approval required by the Provost/SVP Academic Affairs

8. PSYC 4360 – Introduction to Psychopathology Implementation Spring 2023
- Updating the grade mode to allow for a grade of “D” to be awarded.

## **College of Business**

Department of Management and Marketing – represented by Mickey Hepner

Graduate Program Modification – Final approval required by the Provost/SVP Academic Affairs

9. Management, MS Implementation Fall 2023
- Adding a face-to-face delivery method for the Master of Science in Management program.

New Graduate Course – Final approval required by the Provost/SVP Academic Affairs

10. MGT 5100 – Employee Training and Development Implementation Fall 2023
- Employee Training and Development reviews the human resource areas of needs assessment and strategic training, the transfer of training, employee motivation and engagement, workforce development and career management, and the need for work life balance. Students will understand the social impact that human resource policies can have on a community.

## **College of Science, Technology, Engineering, and Mathematics**

### Department of Computer Science and Information Technology – represented by Nicholas Coleman

11. General Information Systems concentration in BS Computer Science Implementation Fall 2023
- Removing the minor requirement and adding an Information Systems Environment requirement. This will essentially add two focused groups of electives for students to choose from. One will be Earth and Environmental Science Focus and the other Business Focus electives.

12. Information Assurance and Security concentration in BS Computer Science Implementation Fall 2023
- Removing the minor requirement and adding an Information Systems Environment requirement. This will essentially add two focused groups of electives for students to choose from. One will be Earth and Environmental Science Focus and the other Business Focus electives.
  - Removing CSCI 3400 (Computer Organization I), CSCI 4100 (Operating Systems and Architecture) and CSCI 4629 (Information Security Certification Workshop).
  - Adding CSCI 4018 (Cloud Computing).

13. Computer Networking concentration in BS Computer Information Technology Implementation Fall 2023
- Changing the name of the concentration from Networking to Computer Networking to align with the minor name.

# Martha Dickerson Eriksson College of Education

Department of Educational Specialties – represented by Benita Bruster

Graduate Program Modification – Final approval required by the Provost/SVP Academic Affairs

14. Educational Leadership, Ed.D Implementation Fall 2023
- This proposal will add additional advanced methodology courses to the major core. Students will now have a choice to take Advanced Qualitative Methods, Mixed Methods Research, or the Applied Statistics II.
  - Updating the admission requirements to remove barriers for students.
15. Literacy Studies in the Educational Leadership, Ed.D Implementation Fall 2023
- Creating a new concentration in Literacy Studies. This concentration will assist students who are wishing to work in P-12 or higher education literacy contexts or who want to work in leading literacy-related fields.

Graduate New Course – Final approval required by the Provost/SVP Academic Affairs

16. SCI 7330 – Advanced Research on Problems in Science Education Implementation Summer 2023
- An examination of historical developments influencing the trajectory of science education will be juxtaposed with modern challenges and opportunities in the implementation of research-based science instruction, equity and culturally responsive science, policy issues, and/or other problems relevant to the goals of creating a scientifically literate society.
17. SCI 7550 – Socioscientific Issues in Education Implementation Summer 2023
- Leadership strategies in navigating the complexities and controversies of socioscientific education in communities with diverse levels of educational sophistication. In this course, students will be expected to use issue investigation and evaluation models within heuristic frameworks for completing authentic, investigatory projects resembling those promoted for learners.
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18. SCI 7770 – Leading Integration of STEM Instruction Implementation Summer 2023
- This course explores leadership strategies for the design, implementation, and support of contemporary integrated STEM learning environments. Students will examine integrated and multidisciplinary practice-based pedagogies, the building of interdisciplinary bridges, and the melding of sociocultural and cognitive factors influencing P-20 STEM education.

Undergraduate Program Modification – Final approval required by the Provost/SVP Academic Affairs

19. 6-8 Middle School (Math) concentration in BS Education Implementation Fall 2023
- Updating the concentration requirements to include the residency cohort as an option when students reach the semester for student teaching.
20. 6-8 Middle School (Science) concentration in BS Education Implementation Fall 2023
- Updating the concentration requirements to include the residency cohort as an option when students reach the semester for student teaching.
21. K-5 Licensure concentration in BS Education Implementation Fall 2023
- Updating the concentration requirements to include the residency cohort as an option when students reach the semester for student teaching.