

## Technical Elective Suggestions for EVEN Students

Any of the courses listed in the options are good technical electives. Other example Technical Elective Courses for EVEN are listed below. If a course is not on this list, you may request approval on a petition form. Honors sections of the courses listed below will also be accepted. Check for prerequisites with your advisor and in the catalog: <http://www.colorado.edu/catalog/2017-18/>.

Some graduate-level classes (5000+) can also be taken as technical electives -- check with your advisor. Note, however, that prerequisites are not listed in the catalog for graduate courses; instructor's permission may be required.

Courses marked with an asterisk (\*) fulfill the earth sciences technical elective requirement (geology, meteorology or soil science). Courses marked with † will fulfill the air/earth sciences lab/field requirement.

New courses added in red

### Arts & Sciences

AIRR 3010 (3) Air Force Leadership Studies I

APPM 3010 (3) An Introduction to Nonlinear Systems: Chaos

APPM 3050 (3) Scientific Computing in Matlab

APPM 3170 (3) Discrete Applied Mathematics

APPM 3310 (3) Matrix Methods and Applications

APPM-3350 (3) Advanced Engineering Calculus

APPM 3570 (3) Applied Probability

APPM 4120 (3) Introduction to Operations Research

APPM 4350 (3) Methods in Appl Math: Fourier Series/Boundary Value Prob

APPM 4360 (3) Methods in Appl Math: Complex Variables & Appl

APPM 4380 (3) Modeling in Applied Mathematics

APPM-4390 (3) Modeling in Mathematical Biology

APPM-4440 (3) Undergraduate Applied Analysis 1

APPM 4540 (3) Introduction to Time Series

APPM-4450 (3) Undergraduate Applied Analysis 2

APPM 4560 (3) Markov Processes, Queues, Monte Carlo Sims

APPM 4580 (3) Statistical Applications: Software & Methods

APPM 4650 (3) Intermediate Numerical Analysis 1

APPM 4660 (3) Intermediate Numerical Analysis 2

APPM 4720 (3) Open Topics in Applied Mathematics

ASTR 3830 (3) Astrophysics 2 - Galactic and Extragalactic

ASTR 4330 (3) Cosmochemistry

ATOC 1050 (3) Weather and the Atmosphere \*

ATOC 1060 (3) Our Changing Environment: El Nino, Ozone and Climate \*

ATOC 1070 (1) Weather and the Atmosphere Lab \* †

ATOC/GEOL 3070 (3) Introduction to Oceanography \*

ATOC 3180 (3) Aviation Meteorology \*

ATOC 3300 (3) Analysis of Climate and Weather Observation \*

ATOC 3500/CHEM 3151 (3) Air Chemistry and Pollution \*

ATOC 3600 (3) Principles of Climate \*

ATOC/ASTR 3720 (3) Planets and Their Atmospheres

ATOC-4200 (3) Biogeochemical Oceanography

ATOC 4500 (1-3) Special Topics in Atmospheric and Oceanic Sciences

ATOC 4700 (3) Weather Analysis and Forecasting

ATOC 4720 (3) Intro to Atmospheric Physics & Dynamics \*

ATOC 4750 (3) Desert Meteorology and Climate \*

CHEM 3151/ATOC 3500 (3) Air Chemistry and Pollution

CHEM 3311 (4) Organic Chemistry 1

CHEM 3321 (1) Lab in Organic Chemistry 1

CHEM 3331 (4) Organic Chemistry 2

CHEM 3341 (1) Lab in Organic Chemistry 2

CHEM 4011 (3) Modern Inorganic Chemistry

CHEM 4021 (3) Inorganic Laboratory

CHEM-4131 (3) Chemistry of Global Health

CHEM 4141 (3) Environmental Water and Soil Chemistry

CHEM 4171 (3) Instrumental Analysis

CHEM 4181 (4) Instrumental Analysis Lab with Environ Emphasis

CHEM 4261 (3) Organic Materials: Structures and Functions

CHEM 4271 (3) Chemistry of Solar Energy

CHEM 4531 (3) Physical Chemistry 2

CHEM 4581 (1) Physical Chemistry Lab 1

CHEM 4591 (2) Physical Chemistry Lab 2

CHEM 4611 (3) Survey of Biochemistry

CHEM 4731 (3) General Biochemistry 2

CHEM 4761 (4) Biochemistry Laboratory

EBIO 1030 (3) Biology: A Human Approach 1

EBIO 1040 (3) Biology: A Human Approach 2

EBIO 1050 (1) Biology: A Human Approach Laboratory

EBIO 1210 (3) General Biology 1

EBIO 1220 (3) General Biology 2

EBIO 1230 (1) General Biology Laboratory 1

EBIO 1240 (1) General Biology Laboratory 2

EBIO 1300 (1-3) Topics in Biological Sciences

EBIO 2010 (1-3) Environmental Issues and Biology

EBIO 2040 (4) Principles of Ecology

EBIO 2070 (4) Genetics: Molecules to Populations

EBIO-2090 (3) Tropical Island and Marine Ecology

EBIO-2091 (1) Marine Ecology, Oceanography and Island Ecology Field Studies

EBIO 3010 (1-2) Teaching Biology

EBIO 3040 (4) Conservation Biology

EBIO 3080 (4) Evolutionary Biology

EBIO 3190 (3) Tropical Marine Ecology

EBIO 3240 (4) Animal Behavior

EBIO 4155 (3) Ecosystem Ecology

EBIO 3850 (4) Animal Diversity: Invertebrates

EBIO 4030 (3) Limnology

EBIO 4060 (3) Landscape Ecology

EBIO 4090 (2) Coral Reef Ecology

EBIO 4100 (3) Advanced Ecology

EBIO 4120 (2-4) Advanced Ecology

EBIO 4140 (3) Plant Ecology

EBIO 4290 (3) Molecular Systematics and Evolution

EBIO 4410 (4) Biometry

EBIO 4500 (4) Plant Biodiversity and Evolution

EBIO 4510 (4) Plant Anatomy and Development

EBIO 4520 (4) Plant Systematics

EBIO 4640 (2-4) Plant Field Studies

EBIO 4660 (4) Insect Biology

EBIO 4750 (4) Ornithology

EBIO 4760 (4) Mammalogy

ENVS 1000 (4) Introduction to Environmental Studies

ENVS/EBIO 3040 Conservation Biology

ENVS/PHYS 3070 (3) Energy and the Environment

ENVS 3520 (3) Energy and Climate Change: An Interdisciplinary Approach

ENVS 3521 (3) Climate Politics and Policy

ENVS 3525 (3) Int Env Problem Analysis: Topical Cornerstones

ENVS/ATOC 3600/GEOG 3601 Principles of Climate

ENVS-3621 (3) Energy Policy and Society

ENVS 4050 (3) Field Studies in Environmental Sciences

ENVS/GEOL/EBIO 4160 Intro to Biogeochemistry\*  
 ENVS/GEOG 4201 Biometeorology

GEOG 1001 (4) Environ'l Systems 1- Climate & Vegetation \*  
 GEOG 1011 (4) Environ'l Systems 2 - Landscapes and Water \*  
 GEOG 2053 (4) Mapping a Changing World  
 GEOG 3053 (3) Cartography: Visualization and Information Design  
 GEOG 3251 (3) Mountain Geography \*  
 GEOG 3351 (3) Biogeography  
 GEOG 3412 (3) Conservation Practice and Resource Management  
 GEOG 3601 (3) Principles of Climate \*  
 GEOG 3662 (3) Economic Geography  
 GEOG 3682 (3) Geography of International Development  
 GEOG 4023 (3) Introduction to Quantitative Methods in Human Geography  
 GEOG 4093 (4) Remote Sensing of the Environment  
 GEOG-4103 (4) Introduction to Geographic Information Science  
 GEOG 4110 (3) Sp.Topics: GIS in the Social and Natural Sciences  
 GEOG/ENVS 4201 (3) Biometeorology \*  
 GEOG 4203 (4) Geographic Information Science: Modeling Applic  
 GEOG 4241 (4) Principles of Geomorphology \*  
 GEOG 4303 (4) GIS: Programming for Spatial Analysis  
 GEOG 4311 (3) Watershed Biogeochemistry  
 GEOG 4321 (3-4) Snow Hydrology  
 GEOG 4371 (3) Forest Geography: Principles and Dynamics  
 GEOG 4401 (3) Soils Geography \*  
 GEOG 4501 (3) Water Resources & Water Management of Western US  
**GEOG 4603 (3) GIS-Social and Natural Sciences**  
 GEOG-4722 (3) Field Methods in Human Geography

GEOL 1010 (3) Introduction to Geology 1 \*  
 GEOL 1020 (3) Introduction to Earth Science\*  
 GEOL 1030 (1) Introduction to Geology Laboratory 1 \* †  
 GEOL 1040 (3) Geology of Colorado \*  
 GEOL 1060 (3) Global Change--an Earth Science Perspective \*  
 GEOL-2001 (4) Planet Earth  
 GEOL-2005 (4) Introduction to Earth Materials  
 GEOL-2040 (3) The Search for Life in the Universe  
 GEOL 2100 (3) Environmental Geology \*  
 GEOL 2700 (2) Introduction to Field Geology \* †  
 GEOL 3010 (3) Introduction to Mineralogy \* †  
 GEOL 3020 (3) Petrology\*  
 GEOL 3030 (3) Introduction to Hydrogeology \*  
 GEOL 3040 (3) Global Change: The Recent Geological Record \*  
 GEOL 3050 (2) GIS for Geologists \*  
 GEOL/ATOC 3070 (3) Introduction to Oceanography \*  
 GEOL 3120 (4) Structural Geology \*  
 GEOL 3320 (3) Introduction to Geochemistry \*  
 GEOL 3410 (3) Paleobiology \*  
 GEOL 3430 (4) Sedimentology and Stratigraphy \*  
 GEOL 3520 (3) Energy and Climate Change: An Interdisciplinary Approach  
 GEOL 3720 (3) Evolution of Life: The Geological Record \*  
 GEOL 3820 (3) The Fluid Earth \*  
 GEOL 3950 (3) Natural Catastrophes & Geologic Hazards \*  
 GEOL 4093 (4) Remote Sensing of the Environment  
 GEOL 4130 (3) Principals of Geophysics \*  
 GEOL 4241 (4) Principles of Geomorphology \*  
 GEOL 4270 (3) Marine Chemistry and Geochemistry  
 GEOL-4330 (3) Cosmochemistry  
 GEOL 4474 (4) Vertebrate Paleontology  
 GEOL 4670 (3) Isotope Geology \*  
 GEOL 4711 (2) Igneous and Metamorphic Field Geology \*  
 GEOL 4712 (2) Structural Field Geology \*  
 GEOL 4714 (2) Field Geophysics \*  
 GEOL 4715 (2) Field Techniques in Hydrogeology\*

GEOL 4716 (2) Environmental Field Geochemistry \* †  
 GEOL 4717 (2) Field Seminar in Geology and Tectonics \*  
 GEOL-4721 (2) Field Methods in Active Tectonics

IPHY 2420 (3) Nutrition, Health and Performance  
 IPHY 3060 (4) Cell Physiology  
 IPHY 3410 (3) Introduction to Human Anatomy  
 IPHY 3415 (2) Human Anatomy Laboratory  
 IPHY 3430 (3) Introduction to Human Physiology  
 IPHY 3435 (2) Human Physiology Laboratory  
 IPHY 3470 (3) Human Physiology 1  
 IPHY 3480 (3) Human Physiology 2  
 IPHY 3660 (3) Dynamics of Motor Learning  
 IPHY 4200 (3) Physiological Genetics and Genomics  
 IPHY 4440 (3) Endocrinology  
 IPHY 4470 (3) Biology of Human Reproduction  
 IPHY 4540 (5) Biomechanics  
 IPHY 4600 (4) Immunology  
 IPHY 4650 (5) Exercise Physiology  
 IPHY 4720 (4) Neurophysiology

MATH 3110 (3) Introduction to Theory of Numbers  
 MATH-3120 (3) Functions and Modeling  
 MATH 3140 (3) Abstract Algebra 1  
 MATH 3170 (3) Combinatorics 1  
 MATH 3210 (3) Euclidean and Non-Euclidean Geometries  
 MATH 3450 (3) Partial Differential Equations 1  
 MATH 4000 (3) Foundations of Mathematics  
 MATH 4001 (3) Analysis II  
 MATH 4120 (3) Introduction to Operations Research  
 MATH 4140 (3) Abstract Algebra 2  
 MATH 4200 (3) Introduction to Topology  
 MATH 4230 (3) Geometry of Curves and Surfaces  
 MATH 4330 (3) Fourier Analysis  
 MATH 4440 (3) Mathematics of Coding and Cryptography  
 MATH 4450 (3) Introduction to Complex Variables  
 MATH 4510 (3) Introduction to Probability Theory  
 MATH 4520 (3) Introduction to Mathematical Statistics  
 MATH 4540 (3) Introduction to Time Series  
 MATH 4650 (3) Intermediate Numerical Analysis 1  
 MATH 4660 (3) Intermediate Numerical Analysis 2  
 MATH 4730 (3) Set Theory

MCDB 1041 (3) Fundamentals of Human Genetics  
 MCDB 1150 (3) Introduction to Cellular and Molecular Biology  
 MCDB 1151 (1) Introduction to Cell and Molecular Biology Lab  
 MCDB-1152 (1) Problem Solving Co-Seminar for Introduction to Molecular and Cellular Biology  
 MCDB 1161 (2) From Dirt to DNA: Phage Genomics Laboratory I  
 MCDB 2161 (2) From DNA to Genes, Phage Genomics Laboratory II  
 MCDB 2150 (3) Principles of Genetics  
 MCDB 2151 (1) Principles of Genetics Laboratory  
 MCDB 3135 (3) Molecular Cell Biology I  
 MCDB 3140 (2) Cell Biology Laboratory  
 MCDB 3150 (3) Biology of the Cancer Cell  
 MCDB 3350 (3) Fertility, Sterility, and Early Mammalian Development  
 MCDB 3501 (3) Structural Methods for Biological Macromolecules  
 MCDB 3650 (3) The Brain - From Molecules to Behavior  
 MCDB 3651 (3) The Brain: Dysfunction to Disease  
 MCDB 3990 (3) Introduction to Systems Biololgy for Biologists  
 MCDB 4201 (3) From Bench to Bedside: The Role of Science in Medicine  
 MCDB 4300 (3) Immunology  
 MCDB 4314 (3) Algorithms for Molecular Biology  
 MCDB 4361 (3) Evolution and Development

MCDB 4410 (3) Human Molecular Genetics  
 MCDB 4425 (3) Cellular Stress Responses: Molecular Mechanisms, Physiology, and Human Diseases  
 MCDB 4426 (3) Cell Signaling and Developmental Regulation  
 MCDB 4427 (3) Biology of the Visual System  
 MCDB 4444 (3) Cellular Basis of Disease  
 MCDB 4471 (3) Mechanisms of Gene Regulation in Eukaryotes  
 MCDB 4520 (3) Bioinformatics and Genomics  
 MCDB 4550 (3) Cells, Molecules and Tissues: A Biophysical Approach  
 MCDB 4615 (3) Biology of Stem Cells  
 MCDB 4650 (3) Developmental Biology  
 MCDB 4680 (3) Mechanisms of Aging  
 MCDB 4750 (3) Animal Virology  
 MCDB 4777 (3) Molecular Neurobiology  
 MCDB 4790 (3) Experimental Embryology  
 MCDB 4811 (3-4) Teaching and Learning Biology

PHYS 1230 (3) Light and Color for Nonscientists  
 PHYS 1240 (3) Sound and Music  
 PHYS 2130 (3) General Physics 3  
 PHYS-2150 (1) Experimental Physics  
 PHYS 2170 (3) Foundations of Modern Physics  
 PHYS 2210 (3) Classical Mechanics and Math Methods 1  
 PHYS-3000 (3) Science and Public Policy  
 PHYS/ENVS 3070 (3) Energy and the Environment  
 PHYS 3210 (3) Classical Mechanics and Mathematical Methods 2  
 PHYS 3220 (3) Quantum Mechanics and Atomic Physics 1  
 PHYS 3310 (3) Principles of Electricity and Magnetism 1  
 PHYS 3320 (3) Principles of Electricity and Magnetism 2  
 PHYS 3330 (2) Electronics for the Physical Sciences  
 PHYS 4130 (2) Biological Electron Microscopy  
 PHYS 4150 (3) Plasma Physics  
 PHYS 4230 (3) Thermodynamics and Statistical Mechanics  
 PHYS 4340 (3) Introduction to Solid State Physics  
 PHYS 4410 (3) Quantum Mechanics and Atomic Physics 2  
 PHYS 4420 (3) Nuclear and Particle Physics  
 PHYS 4510 (3) Optics

### College of Engineering and Applied Science

AREN 1027 (3) Engineering Drawing (formerly AREN 1017)  
 AREN 2050 (3) Building Materials and Systems  
 AREN 3010 (3) Mechanical Systems for Buildings  
 AREN 3040 (3) Circuits for Architectural Engineers  
 AREN 3050 (3) Environmental Systems for Buildings 1  
 AREN 3060 (3) Environmental Systems for Buildings 2  
 AREN 3140 (3) Illumination Laboratory  
 AREN 3540 (3) Illumination 1  
 AREN 4010 (3) HVAC System Modeling and Control  
 AREN 4035 (3) Architectural Structures 1  
 AREN 4045 (3) Architectural Structures 2  
 AREN 4110 (3) HVAC Design  
 AREN 4130 (3) Optical Design for Illumination and Solid State Lighting  
 AREN 4315 (2) Design of Masonry Structures  
 AREN 4317 (5) Architectural Engineering Design  
 AREN 4506 (3) Project Management 1  
 AREN 4530 (3) Advanced Lighting Design  
 AREN 4540 (3) Exterior Lighting Systems  
 AREN 4550 (3) Illumination 2  
 AREN 4560 (3) Luminous Radiative Transfer  
 AREN 4570 (3) Building Electrical Systems Design 1  
 AREN 4580 (3) Daylighting  
 AREN 4590 (3) Computer Graphics in Lighting Engineering

AREN 4606 (3) Project Management 2: Project Execution and Control  
 AREN 4830 (1-3) Special Topics for Seniors/Grads.  
 AREN 5020 (3) Building Energy Audits

ASEN 3111 (4) Aerodynamics  
 ASEN 3112 (4) Structures  
 ASEN 3128 (4) Aircraft Dynamics  
 ASEN 3200 (4) Orbital Mechanics/Attitude Dynamics & Control  
 ASEN 3300 (4) Aerospace Electronics and Communications  
 ASEN 4012 (3) Aerospace Materials  
 ASEN 4013 (3) Foundations of Propulsion  
 ASEN 4114 (3) Automatic Control Systems  
 ASEN 4128 (3) Human Factors in Engineering and Design  
 ASEN 4138 (3) Aircraft Design  
 ASEN/ATOC 4215 (3) Oceanography \*

CHEN 2810 (3) Biology for Engineers  
 CHEN 3220 (3) Separations and Mass Transfer  
 CHEN 4130 (2) Chemical Engineering Lab 2  
 CHEN 4330 (3) Reaction Kinetics  
 CHEN 4440 (3) Chemical Engineering Materials  
 CHEN 4450 (3) Polymer Chemistry  
 CHEN 4520 (3) Chemical Process Synthesis.  
 CHEN 4521 (3) Physical Chemistry for Engineers  
 CHEN 4530 (2) Chemical Engineering Design Project  
 CHEN 4570 (4) Instrumentation and Process Control  
 CHEN 4630 (1) Intellectual Property Law and Engineering  
 CHEN 4650 (3) Particle Technology  
 CHEN 4801 (3) Pharmaceutical Biotechnology  
 CHEN 4805 (3) Biomaterials  
 CHEN 4810 (2) Biological Engineering Laboratory  
 CHEN 4820 (3) Biochemical Separations  
 CHEN 4830 (3) Chemical Engineering Biokinetics  
 CHEN 4836 (3) Nanomaterials  
 CHEN 4838 (3) Sp Top: Energy Fundamentals

COEN 3210 (3) Climate Change and Engineering  
 COEN 3210 (3) Climate Change & Engineering

CVEN 2012 (3) Introduction to Geomatics  
 CVEN 3022 (3) Construction Surveying  
 CVEN 3111 (3) Analytical Mechanics 2  
 CVEN 3161 (3) Mechanics of Materials 1  
 CVEN 3246 (3) Introduction to Construction  
 CVEN 3256 (3) Construction Equipment and Methods  
 CVEN 3323 (3) Hydraulic Engineering  
 CVEN 3424 (3) Water and Wastewater Treatment  
 CVEN 3434 (3) Introduction to Applied Ecology  
 CVEN 3525 (3) Structural Analysis  
 CVEN 3602 (3) Transportation Systems  
 CVEN 3698 (3) Engineering Geology \*  
 CVEN 3708 (3) Geotechnical Engineering 1 \* †  
 CVEN 3718 (3) Geotechnical Engineering 2 \*  
 CVEN 4161 (3) Mechanics of Materials 2  
 CVEN 4353 (3) Groundwater Engineering  
 CVEN 4383 (3) Groundwater Modeling  
 CVEN 4554 (3) Fundamentals of Air Quality Management  
 CVEN 4474 (3) Hazardous and Industrial Waste Mgmt  
 CVEN 4511 (3) Intro Finite Elements  
 CVEN 4525 (3) Matrix Structural Analysis  
 CVEN 4545 (3) Steel Design  
 CVEN 4555 (3) Reinforced Concrete Design  
 CVEN 4565 (2) Timber Design  
 CVEN 4700 (3) Sustainability and the Built Environment  
 CVEN 4728 (3) Foundation Engineering  
 CVEN 4834 (3) Sustainable Potable Water Supply Systems in Chile

CVEN 4834 (3) International Environmental Impact Assessment  
CVEN 4834 (3) Environmental Impact Assess  
CVEN 4838 (3) Sp Top: Sustainable Community Development 1  
CVEN 5393 (3) Water Resources Development & Management  
CVEN 5432 (3) Water Resource Engineering Design  
CVEN 5537 (3) Numerical Methods in Civil Engineering  
CVEN 5544 (3) Solid Waste  
CVEN 5834 (3) Environmental Impact Assess

CSCI 1240 (3) The Computational World  
CSCI 1300 (4) Computer Science 1: Starting Computing  
CSCI 2270 (4) Computer Science 2: Data Structures  
CSCI 2400 (4) Computer Systems  
CSCI 2820 (3) Linear Algebra with Computer Science Applications  
CSCI 2824 (3) Discrete Structures  
CSCI 2830 (1-3) Special Topics in Computer Science  
CSCI 3002 (3) HCC Foundations/User-Centered Design and Dev 1  
CSCI 3104 (4) Algorithms  
CSCI 3112 (1-3) Human-Centered Computing Professional Dev  
CSCI 3155 (4) Principles of Programming Languages  
CSCI 3202 (3) Introduction to Artificial Intelligence  
CSCI 3287 (3) Database and Information Systems  
CSCI 3308 (3) Software Development Methods and Tools  
CSCI 3434 (3) Theory of Computation  
CSCI 3656 (3) Numerical Computation  
CSCI 3702 (3) Cognitive Science  
CSCI 3753 (4) Operating Systems  
CSCI 4229 (3) Computer Graphics  
CSCI 4273 (3) Network Systems  
CSCI-4302 (3) Advanced Robotics  
CSCI 4308 (4) Software Engineering Project 1  
CSCI-4314 (3) Algorithms for Molecular Biology  
CSCI 4318 (4) Software Engineering Project 2  
CSCI 4446 (3) Chaotic Dynamics  
CSCI 4448 (3) Object Oriented Analysis and Design  
CSCI-4502 (3) Data Mining  
CSCI 4555 (3) Introduction to Compiler Construction  
CSCI 4576 (4) High Performance Scientific Computing 1  
CSCI 4593 (3) Computer Organization  
CSCI 4753 (3) Computer Performance Modeling  
CSCI 4809 (3) Computer Animation  
CSCI-4830 (1-3) Special Topics in Computer Science

ECEN 1310 (4) C and MATLAB Programming for Electrical and Computer Engineers  
ECEN 1400 (3) Introduction to Digital and Analog Electronics  
ECEN 2060 (3) Sp Top: Renewable Energy  
ECEN 2250 (3) Introduction to Circuits and Electronics  
ECEN 2270 (3) Electronics Design Lab  
ECEN 2350 (3) Digital Logic  
ECEN 2410 (3) Renewable Sources and Efficient Electrical Energy Systems  
ECEN 2703 (3) Discrete Mathematics for Computer Engineers  
ECEN 3010 (3) Circuits and Electronics for Mechanical Engineers  
ECEN 3030 (3) Electrical/Electronic Circuits Non-Major  
ECEN 3170 (3) Electromagnetic Energy Conservation 1  
ECEN 3002 to 3005 (3-5) Special Topics  
ECEN 3250 (3) Microelectronics  
ECEN 3300 (5) Linear Systems  
ECEN 3320 (3) Semiconductor Devices  
ECEN-3350 (3) Programming Digital Systems  
ECEN-3360 (3) Digital Design Laboratory  
ECEN 3400 (5) Electromagnetic Fields and Waves  
ECEN 3410 (3) Electromagnetic Waves and transmission  
ECEN 3810 (3) Introduction to Probability Theory  
ECEN 4021 (3) Sp Top: Design Med Device

ECEN 4138 (3) Control Systems Analysis  
ECEN 4167 (3) Electromagnetic Energy Conservation 2  
ECEN 4224 (3) High Speed Digital Design  
ECEN 4242 (3) Communication Theory  
ECEN 4341 (3) Bioelectromagnetics  
ECEN 4517 (2) Power Electronics Laboratory  
ECEN 4532 (3) Digital Signal Processing Laboratory  
ECEN 4553 (3) Introduction to Compiler Construction  
ECEN 4555 (3) Principles of Energy Systems and Devices  
ECEN 4583 (3) Fundamental of Systems Engineering  
ECEN 4593 (3) Computer Organization  
ECEN 4606 (3) Undergraduate Optics Laboratory  
ECEN 4616 (3) Optoelectric System Design  
ECEN 4632 (3) Introduction to Digital Filtering  
ECEN 4634 (2) Microwave and RF Laboratory  
ECEN 4638 (2) Control Systems Laboratory  
ECEN 4652 (2) Communication Laboratory  
ECEN 4797 (3) Introduction to Power Electronics  
ECEN 4827 (3) Analog IC Design

EMEN 4030 (3) Project Management Systems  
EMEN 4050 (3) Leadership and Professional Skills  
EMEN 4200 (3) Technology and Entrepreneurship for the Developing World  
EMEN 4400 (3) Quality Management for Engineers  
EMEN 4405 (3) Fundamental of Systems Engineering  
EMEN 4800 (3) Technology Ventures and Marketing  
EMEN 4825 (3) Entrepreneurial Business Plan Preparation  
EMEN 4830 (3) Entrepreneurial Management and Leadership  
EMEN 4830 (3) Principles and Practices of the Sustainable Enterprise  
EMEN 4600 (3) Energy Engineering Projects  
EMEN 5830 (3) Principles and Practices for Sustainable Enterprise

EVEN 2840 (1-3) Independent Study  
EVEN 4100 (3) Environmental Sampling and Analysis \* †  
EVEN 4696 (3) Water and Sanitation  
EVEN 4830 (3) Environmental Engineering Process Modeling  
EVEN 4830-002 (3) Cad/Gis  
EVEN 4834 (3) International Environmental Impact Assessment  
EVEN 4840 (1-3) Independent Study  
EVEN 4980-4990 (6) Senior Thesis

GEEN 1017 (3) Cad course  
GEEN 3400 (3) Invention and Innovation

MCEN 1025 (3) Computer-Aided Design and Fabrication  
MCEN 2024 (3) Materials Science  
MCEN 2063 (3) Mechanics of Solids  
MCEN 3025 (3) Component Design  
MCEN 3030 (3) Computational Methods  
MCEN 4026 (3) Manufacturing Processes and Systems  
MCEN 4115 (3) Mechantronics and Robotics I  
MCEN 4117 (3) Anatomy and Physiology for Engineers  
MCEN 4135 (3) Wind Energy and Wind Turbine Design  
MCEN 4141 (3) Indoor Air Pollution  
MCEN 4151 (3) Flow Visualization  
MCEN 4152 (3) Introduction to Combustion  
MCEN 4162 (3) Energy Conversion  
MCEN 4173 (3) Finite Element Analysis  
MCEN 4174 (3) Failure of Engineering Materials  
MCEN 4183 (3) Mechanics of Composite Materials  
MCEN 4228 (3) Sp Top: Energy Conservation and Storage  
MCEN 4228 (3) Sp Top: Environmental Modeling  
MCEN 4228 (3) Sp Top: Renewable and Sustainable Energy  
MCEN 4228 (3) Sp Top: Wind Energy  
MCEN 4228 (3) Sp Top: Air Measurement

MCEN 4228 (3) Sp Top: Project-Based Learning in Rural Schools

MCEN 4135 (3) Wind Energy and Wind Turbine Design