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COLLEGE OF EDUCATION

Department of Kinesiology and Physical Education

BOT Other Catalog Change
IBHE

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Total Hours for a Major in Kinesiology: 70-71

Major in Sport Management (B.S.)

All students pursuing the B.S. degree with a major in sport management are required to have a university cumulative GPA of 2.50 or above and to have satisfactorily completed all required course_work within the department prior to the culminating internship, LESM 486. Students are required to earn grades of C or better in all courses with an LESM designator, as well as in the university's foundational studies in quantitative literacy. Students within this major are strongly encouraged to pursue a minor in sport sales, marketing, business administration, psychology, or other areas of interest.

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

Requirements in Department (49)

KNPE 111 - Sport: Culture and Society (3)

OR LESM 152 - Perspectives in U.S. Sport (3)

KNPE 310 - Psychological Aspects of Sport and Exercise (3)

KNPE 393 - Social Aspects of Sport (3)

LESM 201 - Introduction to Sport Management (3)

LESM 350 - Sport Sales and Sponsorship (3)

LESM 360 - Sport Event and Facility Management (3)

LESM 386 - Professional Development in Sport Management (1)

LESM 438 - Sport Management Strategies (3)

LESM 439 - Legal and Ethical Aspects of Sport (3)

LESM 442 - Promotion and Marketing of Sport Programs (3)

LESM 444 - Finance in the Sport Industry (3)

LESM 486 - Internship in Sport Management (9-15)

Electives in 300- and 400-level LESM courses (3-9)

Requirements outside Department (24)

ACCY 288 - Fundamentals of Accounting (3)

ECON 260 - Principles of Microeconomics (3)

MGMT 333 - Principles of Management (3)

MKTG 310 - Principles of Marketing (3)

MKTG 350 - Principles of Selling (3)

OMIS 259 - Introduction to Business Information Systems (3)

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PSYC 102 - Introduction to Psychology (3)

STAT 208 - Basic Statistics (3),

OR STAT 301 - Elementary Statistics (3),

OR STAT 350 - Introduction to Probability and Statistics (3)

Total Hours for a Major in Sport Management: 73

BOT 2/15/18, IBHE 6/5/18, BC 12/14/17 Sec. B

COLLEGE OF ENGINEERING AND ENGINEERING TECHNOLOGY

Department of Mechanical Engineering

BOT Other Catalog Change

2017-2018 Undergraduate Catalog

IBHE

Department of Mechanical Engineering (MEE, MCTR)

The Department of Mechanical Engineering offers an upper-division curricular which that leads to the B.S. in mechanical engineering and B.S. in mechatronics engineering. The curriculum is curricular are based on a strong foundation of fundamental courses in the pure sciences and engineering, and professional courses in mechanical engineering and mechatronics engineering. The curriculum curricular also provides a background in the design, analysis, development, and applications of both complete mechanical systems and a wide variety of individual system components in many different fields.

The B.S. program offered by the Department of in Mechanical Engineering (MEE) encompasses many areas, such as such as solid mechanics, dynamics and controls, fluid mechanics, thermodynamics, heat and mass transfer, energy conversion, and manufacturing. This background is strengthened and integrated through application in a sequence of broad engineering design and laboratory courses. The department has significant equipment for experimental investigations.

The B.S. program in Mechatronics Engineering (MCTR) spans across boundaries of traditional engineering disciplines, with core courses offered by the departments of Mechanical Engineering, Electrical Engineering, and Technology. In addition, the curriculum offers specialized Mechatronics mechatronics courses in which students study the integration of computing, electronics, and mechanical systems at deeper levels compared to courses the traditional disciplines. The learning environment is complemented by design and laboratory experiences.

Computers are used extensively throughout the MEE curriculum, with emphasis on interactive computer-aided design, computer-aided manufacturing, and simulation of engineering systems. In the MCTR curriculum, there is a similar emphasis on using computational tools for design and simulation. In addition, Mechatronics focuses of embedding computing and computational intelligence into devices and systems. The Cooperative Education/Internship Program is also available to qualified students.

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The department also

Mission

The mission of the Mechanical Engineering Department is to provide a high-quality, visionary engineering education in both baccalaureate programs that reflects professional engineering standards and prepares students to become engineers and leaders ... services to our communities.

Educational Objectives

The undergraduate mMechanical mechanical eEngineering engineering and Mechatronics mechatronics Engineering engineering program is programs are designed to prepare students for successful careers in engineering by providing them with the following: a balanced education in mechanical engineering and mechatronics engineering fields, respectively; a foundational knowledge in mathematics and physical sciences; a broad general education in creativity and critical analysis, and society and culture the humanities/arts, social sciences, and interdisciplinary studies; training for effective communication and team work; and understanding and commitment of an engineer's professional and ethical responsibilities. Our educational objectives are based on the needs of the program's programs' constituencies: employers, alumni, students, and faculty. We expect our ... leadership responsibility.

Program Outcomes

The graduates of the undergraduate mMechanical mechanical eEngineering engineering and Mechatronics mechatronics Engineering engineering programs should attain the following outcomes by the time of graduation: an ability to apply knowledge of mathematics, science, and engineering; an ability to design and conduct experiments, as well as to analyze and interpret data; an ability to design a system, component, or process to ... engineering practice.

Department Requirements

All mechanical engineering <u>and mechatronics engineering</u> 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.

GPA calculations will only include courses taken at NIU. For Mechanical Engineering engineering students, Mmajor GPA will be calculated using all MEE courses and up to one course taken outside the department which satisfies the group B technical elective requirement. The GPA calculation will only include courses taken at NIU.

Writing Across the Curriculum Courses

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The Department of Mechanical Engineering recognizes that competence in technical writing is essential for engineers. To build ... the course description. These courses are MCTR 481, MCTR 482, MEE 390, MEE 425, MEE, 481, MEE 482, and MEE 490. Each of these courses requires a significant technical writing component which will be reviewed by both the course instructor and a technical writing tutor.

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Major in Mechanical Engineering (B.S.)
Major in Mechatronics Engineering (B.S.)
Requirements in Department (54-55)
MCTR 210 - Programming for 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 482 - Mechatronics Engineering Senior Design II (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 212 - Mechanics of Materials (3)
      OR MEE 340 - Fluid Mechanics (3)
MEE 321 - Mechanical Vibrations I (3)
MEE 322 - Dynamic 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)
A total of fFour technical electives from the group below (12)
       ELE 430 - Design with Field Programmable Logic Devices (3)
       ELE 437 - Hybrid Circuit Design (3)
       ELE 454 - Introduction to Digital Image Processing (3)
       ELE 481 - Digital Control Systems (3)
       MCTR 421 - Human Machine Interaction Principles and Design (3)
       MCTR 422 - Servo Drives (3)
       MCTR 430 - Vision-Vision-Based based Control (3)
       MEE 422 - Design of Robot Manipulators (3)
       MEE 425 - Design of Mobile Robots (3)
       MEE 427 - PLC-based Robotics in Automated Systems
       MEE 428 - Modeling Complex Systems (3)
       TECH 473 - Advanced Digital Design (3)
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Requirements outside Departments (48)
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)
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)
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)
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BOT 6/14/18, IBHE 7/9/18, BC 12/14/17 Sec. B

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of English

BOT/ Other Catalog Change Page 272, 2017-18 Undergraduate Catalog

Department of English (ENGL)

The Department of English offers a major leading to the choice of a B.A. or a B.S. degree. English majors

Major in English (B.A. or B.S.)

Students majoring in the ..., and archiving.

The English major enables students with a love of literature, rhetoric, and writing to advance their

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analytical, research, and communicative skills. The major readies students for a competitive job market in a global economy.

In the English B.A., knowledge of a foreign language prepares students for advanced studies, careers in translation, and intercultural business communication. The English B.A. also prepares future teachers to interact with English language learners and their families.

In the English B.S., students can combine their knowledge of science, technology, engineering, and math with the kinds of excellent reading, writing, and speaking skills that employers value most highly.

The student learning outcomes for this the English B.A. and B.S. degrees are located at www.niu.edu/assessment/clearinghouse/outcomes.shtml.

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Track 1. English Studies in Literature
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Requirements outside department (0-12)

Fulfillment of B.A....

Requirements outside Department (10-15)

Fulfillment of B.S. laboratory science/mathematical/computational skills sequence (See "College Requirement for the B.S. Degree")

Total hours for a Major in English, Track 1: 39-51 (B.A.); 49-54 (B.S.)

Track 2. English Studies Leading to Secondary Licensure in English Language Arts ↓
Requirements outside department (9-21)

Fulfillment of B.A....

Requirements outside Department (10-15)

Fulfillment of B.S. laboratory science/mathematical/computational skills sequence (See "College Requirement for the B.S. Degree")

Total hours for a Major in English, Track 2: 56-68 74 (B.A.); or 57-68 (B.S.)

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Major in English (B.A.)

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Track 3. English Studies in Writing

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Requirements outside department (0-12)

Fulfillment of B.A....

Requirements outside Department (10-15)

Fulfillment of B.S. laboratory science/mathematical/computational skills sequence (See "College Requirement for the B.S. Degree")

Total hours for a Major in English, Track 3: 39-51 42-54 (B.A.) or 52-55 (B.S.)

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