Bachelor of Science Degree in Interdisciplinary Studies - General Engineering Technology Major

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The IDS Bachelor of Science degree with a major in general engineering technology (GET) is designed for students with military training and education in mechanical or electrical engineering technology. Students obtain a concentration in electromechanical systems and a minor in engineering management. The degree program is included in the Navy College Program Distance Learning Partnership (NCPDLP), U.S. Air Force Associate to Baccalaureate Cooperative (ABC), Servicemembers Opportunity College (SOC), and Navy College Program for Afloat Education (NCPACE).

To be eligible for the program, students must have earned 21 military credits related to electrical or mechanical engineering technology. These credits are required to declare the major and satisfy the technical base requirement.

General Education and Major Requirements

The following table details the required general education courses and major requirements. All of the upper-division (300/400 level) courses in the major are available by distance learning in multiple formats, making the program accessible from any location. No more than two classes, or six credits, may be counted for both the major and a minor.

Technical Base * 21
Lower Division General Education 38-44
- Written Communication
- Oral Communication
- Mathematics (MATH 211 required)
- Language and Culture
- Information Literacy and Research
- Human Creativity
- Interpreting the Past
- Literature
- Philosophy and Ethics
- The Nature of Science (PHYS 111N-PHYS 112N required)
- Impact of Technology ** **
- Human Behavior

Interdisciplinary Studies Core 9
- IDS 300W Interdisciplinary Theory and Concepts (grade of C or higher required)

Select two of the following:
- ENGL/IDS 307T Digital Writing
- IDS 368 Internship in Interdisciplinary Studies
- IDS 493 IDS Electronic Portfolio Project

Civil Engineering Technology 6
- CET 200 Statics
- CET 220 Strength of Materials

Electrical Engineering Technology 12
- EET 350 Fundamentals of Electrical Technology

EET 360 Electrical Power and Machinery
EET 410 Communication Principles
or EET 370T Energy and the Environment
EET 415 Programmable Machine Controls

Mechanical Engineering Technology 9
- MET 300 Thermodynamics
- MET 310 Dynamics
- MET 330 Fluid Mechanics

Upper-division general education (minimum) 6
Free Electives 12-18
Total Hours 120-126

* Required to declare the major.
** Grade of C or better required in both courses and in ENGL 110C and before declaring major.
*** Can be met by ENGL 307T/IDS 307T or EET 370T.

Electives

Elective courses may be needed to meet the minimum of 120 credits required for the degree.

Upper Division General Education

The ENMA minor is recommended, but not required. Students may choose another minor or Option D (Two Upper-Division courses outside the College and not required by the major) to meet the requirement. Upper-Division General Education is automatically satisfied for students obtaining a second bachelor's degree.

Requirements for Graduation

Requirements for graduation include a minimum cumulative grade point average of 2.00 overall and in the major, 120 credit hours, which must include both a minimum of 30 credit hours overall and 12 credit hours of upper-level courses in the major program from Old Dominion University, completion of ENGL 110C, ENGL 211C or ENGL 221C or ENGL 231C, and the writing intensive (W) course in the major with a grade of C or better, and completion of Senior Assessment.

INTERDISCIPLINARY STUDIES Courses

IDS 300W. Interdisciplinary Theory and Concepts. 3 Credits.
An examination of the history, concepts and application of interdisciplinary study. This course includes an analysis of similarities and differences in academic disciplines and the application of interdisciplinary approaches to a specific topic of study. (This is a writing intensive course.) Prerequisite: a grade of C or better in ENGL 211C, ENGL 221C or ENGL 231C.

IDS 307T. Digital Writing. 3 Credits.
This course introduces students to issues of writing in various digital environments like web pages, email, blogs, wikis, and discussion boards. It also introduces fundamentals of hypertext authoring, digital and visual rhetoric, and image manipulation. Prerequisites: ENGL 110C and ENGL 211C or ENGL 221C or ENGL 231C.

IDS 368. Internship in Interdisciplinary Studies. 1-6 Credits.
An opportunity to integrate service and applied learning experience with interdisciplinary perspectives. Prerequisite: junior standing and permission of individualized interdisciplinary studies program coordinator.
IDS 397. Independent Study. 1-6 Credits.

IDS 398. Independent Study. 1-6 Credits.

IDS 400/500. Study Abroad. 0 Credits.

IDS 466W. Introduction to Mitigation and Adaptation Studies. 3 Credits.
Students will be introduced to the science underpinning mitigation of human-induced changes in the Earth system, including but not limited to climate change and sea level rise, and adaptation to the impacts of these changes. The course will cover the environmental hazards and the opportunities and limitations for conservation, mitigation and adaptation. Cross listed with BIOL 466W and OEAS 466W. Prerequisite: BIOL 291 or permission of instructor.

IDS 467. Sustainability Leadership. 3 Credits.
In this class, students will discover what makes a leader for sustainability. They will consider a range of global and local crises from a leadership point of view in the context of sustainability science, which addresses the development of communities in a rapidly changing social, economic, and environmental system-of-systems environment. The course will be based on taking a problem-motivated and solution-focused approach to the challenges considered. The course includes a service learning project focusing on a leadership experience in solving a real-world environmental problem. Prerequisite: BIOL 466W or OEAS 466W or IDS 466W.

IDS 493. IDS Electronic Portfolio Project. 3 Credits.
The preparation of an electronic portfolio integrating the student's academic study, work experiences, skill identification and work products. Alternative formats are used for varying uses of the portfolio. Prerequisites: IDS 300W and senior standing.

IDS 495. Topics in Integrative Studies. 3 Credits.
Focused study of selected topics linking perspectives, research and applications from a variety of disciplines. Emphasis is on disciplinary synthesis. Prerequisite: IDS 300W.

IDS 497. IDS Individualized Senior Project. 3 Credits.
This course is a vehicle for the execution of the senior project requirement of the Interdisciplinary Studies Program. The project will be negotiated between the student, faculty sponsors, and the program. Open only to individualized integrative studies majors. Prerequisites: IDS 300W, permission of the instructor and an approved individualized integrative studies curriculum plan.