

Applied Science

Director, Associate Dean for Undergraduate Education of the P.C. Rossin College of Engineering and Applied Science

The Applied Science Program enables students to create interdisciplinary specialties that prepare them for careers in a world that increasingly bridges academic disciplines. Students pursue subject-area concentrations that represent academic interests they wish to integrate into a meaningful program. The core offers students the intellectual tools to identify connections between the concentrations and engage in interdisciplinary problem-solving and critical thinking.

The program leads to the Bachelor of Science in Applied Science. Each student's curriculum combines a general engineering education with a carefully customized concentration in engineering and/or science as well as another area of emphasis, which may include courses taken inside the P.C. Rossin College of Engineering & Applied Science and may also include courses taken in one or more of the other three Colleges within the University.

In order to ensure the success of this individualized approach to education, Applied Science places primary emphasis on advisement. Each student is teamed with an advisor who helps the student plan the course of study and who supervises independent study and internships. The advisor remains the student's advisor throughout his or her undergraduate career.

Unlike students in the traditional college programs, students in the Applied Science program of individualized study do not declare a major in a particular academic department. Instead, they develop a concentration that may combine study in several areas. Students are encouraged by their advisor to develop the concentration in such a way that the student will be well prepared for further study in graduate school or for pursuing a particular career path. While the chosen concentration can be highly customized in consultation with the advisor, examples of concentrations include: Technical Communications, Digital Media, Entertainment Science, Technology/Science and Education, Technology/Science and Pre-law, Technology/Science and Pre-Medicine, Technology Management, Technology Marketing, and Engineering and Architecture. Many other combinations are possible.

The requirements for a BS in Applied Science program are a minimum of 128 credit hours including:

First Year Courses

WRT 001	Academic and Analytical Writing	3
WRT 002	Research and Argument	3
ENGR 005	Introduction to Engineering Practice	2
ENGR 010	Applied Engineering Computer Methods	2
CHM 030	Introduction to Chemical Principles	4
PHY 011 & PHY 012	Introductory Physics I and Introductory Physics Laboratory I	5
MATH 021	Calculus I	4
MATH 022	Calculus II	4

Other Natural Science

CHM 031	Chemical Equilibria in Aqueous Systems	4
BIOS 041	Introduction to Cellular and Molecular Biology	3
EES 080	Introduction to the Earth System	4
PHY 021 & PHY 022	Introductory Physics II and Introductory Physics Laboratory II	5

Other Mathematics

MATH 021	Calculus I	4
MATH 022	Calculus II	4
MATH 023	Calculus III	4
MATH 205	Linear Methods	3
MATH 231	Probability and Statistics	3

Required HSS courses

ECO 001	Principles of Economics	4
PHIL 128	Philosophy Of Science	4
or HIST 008	Technology in Modern America	
or POLS 106	Environmental Values and Ethics	
PSYC 001	Introduction to Psychology	4

Humanities & Social Science electives

Select 13 additional credits subject to college requirements.	13
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Major electives

Select 24 credits	24
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Approved electives

Select 18 credits	18
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Total Credits	128
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