

Bachelor of Arts in Engineering Systems (code COE_BA01) (120 units)

This new program was recommended by the Academic Senate on November 15, 2007, approved by the President on November 26, 2007, and approved by the Chancellor on April 26, 2010.

Program Director: Mahyar Amouzegar

The Bachelor of Arts in Engineering Systems provides students with an opportunity to study engineering in an interdisciplinary environment. This program combines a core engineering program with two options and course work and programs in business, communications, design, economics, or language.

Requirements

Core

Thirty-one units required. Take all of the following:

- CECS 100 Critical Thinking in the Digital Information Age (3)
- CECS 174 Introduction to Programming and Problem Solving (3)
- CECS 202 The Digital Information Age (3)
- CECS 312 Introduction to Distributed Operating Systems (3)
- CECS 414 Introduction to Network and System Security Issues (3)
- ENGR 203 Engineering Problems and Analysis (3)
- ENGR 310 Business Communications in Engineering Profession (3)
- ENGR 498 Engineering Systems Senior Project (3)
- MATH 122 Calculus I (4)

Take one of the following:

- EE 403 Systems Engineering (3)
- EE 380 Probability, Statistics and Stochastic Modeling (3)

Select one of the following emphases (31 units)

Emphasis in Systems and Security

Take all of the following:

- PHYS 151 Mechanics and Heat (4)
- CECS 110 Web Design I (3)
- CECS 200 Web Design II (3)
- CECS 410 Computers and Networks (3)
- CECS 412 Introduction to Computer Network Architectures (3)
- ENGR 302I Energy and Environment: A Global Perspective (3)
- ENGR 350 Computers, Ethics and Society (3)

Take 9 units of approved engineering and non-engineering courses (see program advisor for a detailed list of courses)

Emphasis in Systems Engineering

Take all of the following:

- MATH 123 Calculus II (4)
- CECS 271 Introduction to Numerical Methods (3)
- CECS 345 Fundamentals of Embedded Systems (3)
- ENGR 432 Logistics Systems Engineering (3)
- CE 406 Cost Engineering and Analysis (3)
- EE 402 Engineering Modeling and Simulation (3)

Take one of the following:

- EE 380 Probability, Statistics and Stochastic Modeling (3)
- EE 403 Systems Engineering (3)

Take 9 units of approved engineering and non-engineering courses (see program advisor for detailed list of courses)

Take 24 units of non-engineering courses with advisor's consent:

- Business (e.g., Finance, Information Systems, Operations Management)
- Communication Studies
- Design
- Economics
- Foreign language

Take approved engineering and non-engineering courses to reach a total of 120 units including 40 upper division units (see program advisor for a detailed list of courses)

EFFECTIVE: Fall 2010

Campus Code: COE_BA01
College: 52
Career: UG
CSU Code: 09013
CIP Code: 14.2701