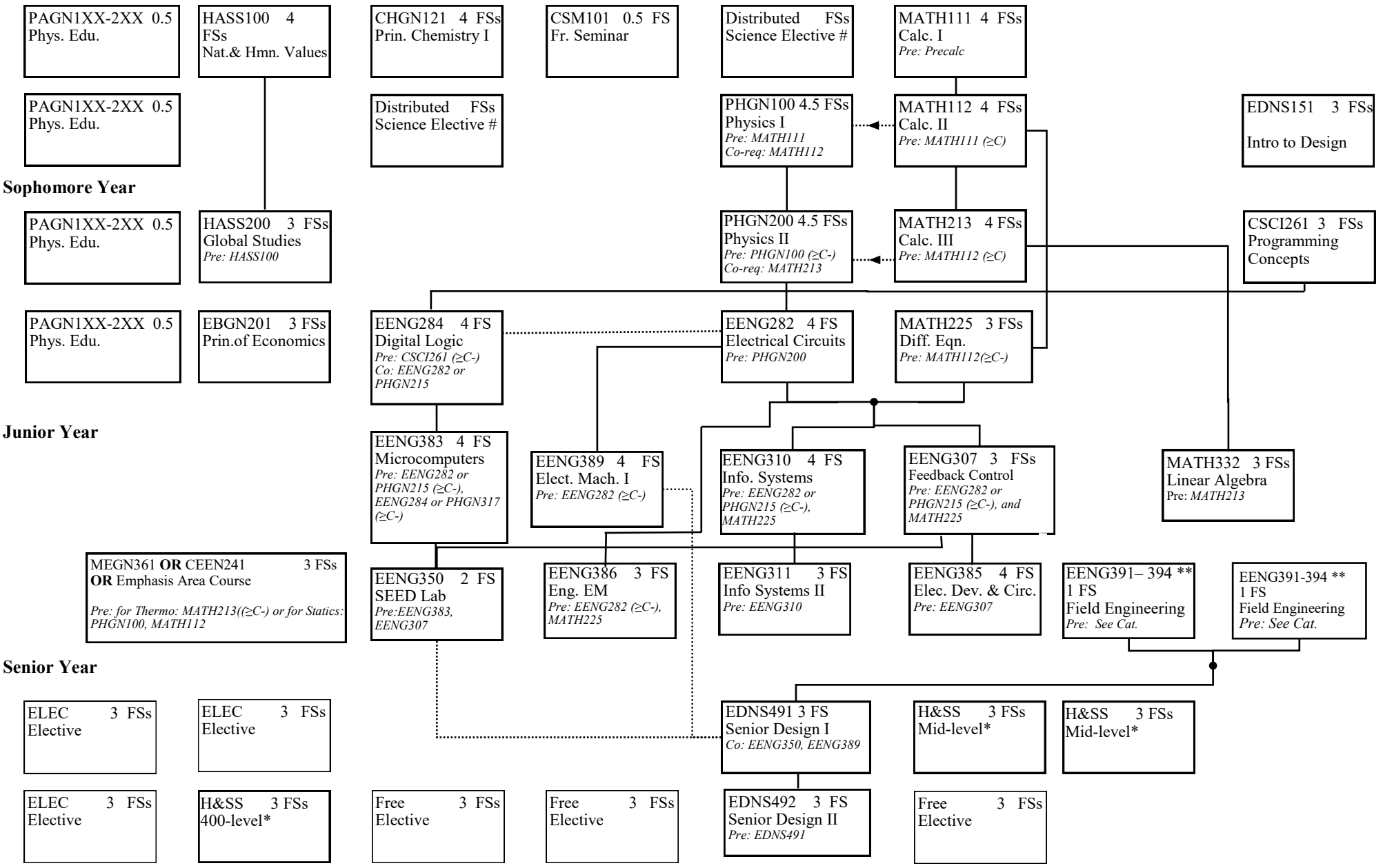
DEPARTMENT OF

COLORADO SCHOOL OF MINES
EARTH • ENERGY • ENVIRONMENT

ELECTRICAL ENGINEERING

2020-2021 Curriculum Flowchart

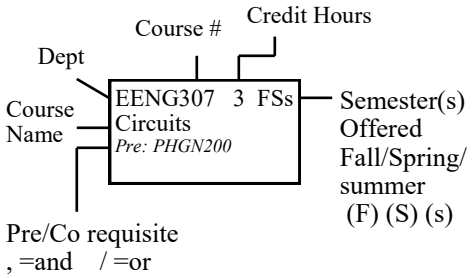


* See 2020-2021 Undergraduate Catalog for list of acceptable courses

CBEN110, CHGN122 or CHGN125, CSCI101 or GEGN101 may be taken for Dist Science

***Must choose 2 of 4– EENG 391, 392, 393, 394*

Legend



Shows Prerequisite Requirement

Shows lines crossing and connecting together

Concurrent Enrollment Allowed
(Arrow points toward course with pre/co requisite requirement)

Advising flowcharts are intended as a quick reference only. For full degree details please see the Catalog applicable to your Catalog year.

Flowchart based on the 20-21 Undergraduate Catalog

Total Degree Credits: 129.5

Electrical Engineering Electives *(organized by emphasis area)*
Electrical Engineering students are required to take nine credits of electrical engineering electives. Taking all nine credit hours in one of the four emphasis areas is encouraged; however, not required. To have emphasis area on official transcript, must take 12 credits.

Information and Systems Sciences

Course	Course Title	Credit Hours	Semester(s) Offered
EENG411	Digital Signal Processing	3	Sp
EENG413	Analog & Digital Comm Systems	4	Check Trailhead
EENG417	Modern Control Design	3	F
EENG427	Wireless Communications	3	Check Trailhead
EENG437	Intro to Computer Vision	3	F
MEGN441	Intro to Robotics	3	F, Sp

Energy Systems and Power Electronics

Course	Course Title	Credit Hours	Semester(s) Offered
EENG390	Energy & Electricity	3	F
EENG470	Intro to High Power Electronics	3	Check Trailhead
EENG475	Intercon. Of Renewable Energy, integ. Pwer Electronics, Power systesm, and Power Quality	3	Check Trailhead
EENG480	Power Systems Analysis	3	F
EENG481	Analysis and Design of Advanced Energy Systems	3	Check Trailhead
EENG489	Computational Methods in Energy Systems & Power	3	Sp

Antennas and Wireless Communications

Course	Course Title	Credit Hours	Semester(s) Offered
EENG425	Introduction to Antennas	3	Sp
EENG427	Wireless Communications	3	Check Trailhead
EENG428	Computational Electromagnetics	3	F
EENG429	Active RF & Microwave Devices	3	Check Trailhead
EENG430	Passive RF & Microwave Devices	3	F
EENG486	EM Fields & Waves	3	Check Trailhead

Integrated Circuits and Electronics

Course	Course Title	Credit Hours	Semester(s) Offered
EENG411	Digital Signal Processing	3	Sp
EENG421	Semiconductor Physics & Design	3	F
EENG423	Introduction to VLSI Design	3	Sp
PHGN435	Interdisciplinary Microelectronics Processing Laboratory	3	Sp

Electrical Engineering- General

Course	Course Title	Credit Hours	Semester(s) Offered				
CEEN405	Numerical Methods for Engineers	3	Check Trailhead	MEGN330	Introduction to Biomechanical Engineering	3	F
CSCI341	Computer Organization	3	F, Sp	PHGN300	Modern Physics I	3	F
CSCI410	Elements of Comp Systems	3	Sp	PHGN320	Modern Physics II: Quantum	4	Sp
CSCI440	Parallel Computing for Scientists & Engineers	3	Sp	PHGN440	Solid State Physics	3	F
CSCI442	Operating Systems	3	F, Sp	PHGN441	Solid State Physics Applications & Phenomena	3	Check Trailhead
MATH335	Introduction to Mathematical Statistics	3	F, Sp	PHGN462	Electromagnetic Waves & Optical Physics	3	F
MATH455	Partial Differential Equations	3	F, Sp				