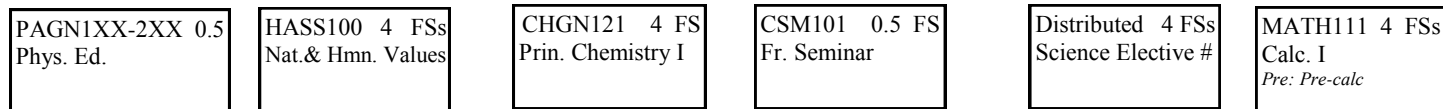


# DEPARTMENT OF MECHANICAL ENGINEERING

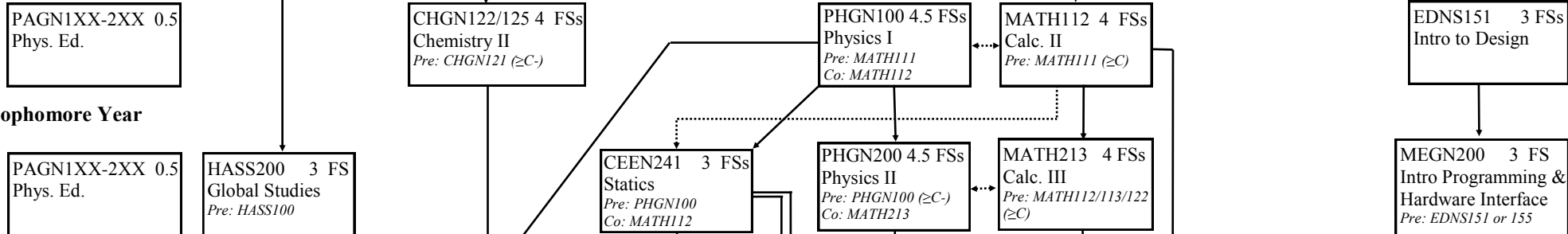
COLLEGE OF ENGINEERING & COMPUTATIONAL SCIENCES

## 2018-19 Curriculum Flowchart

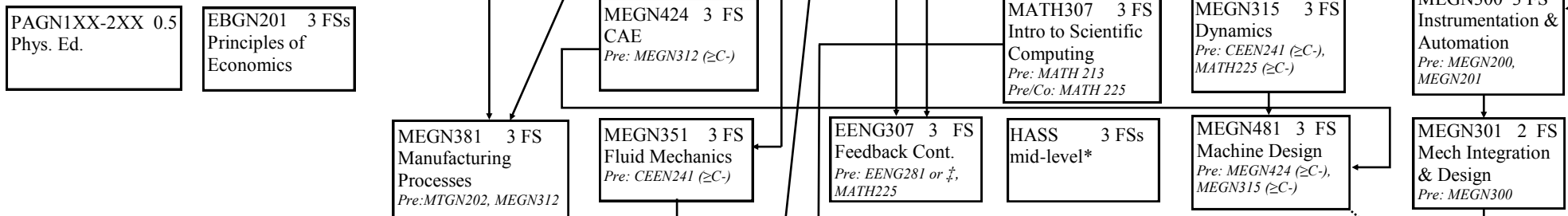
### Freshman Year



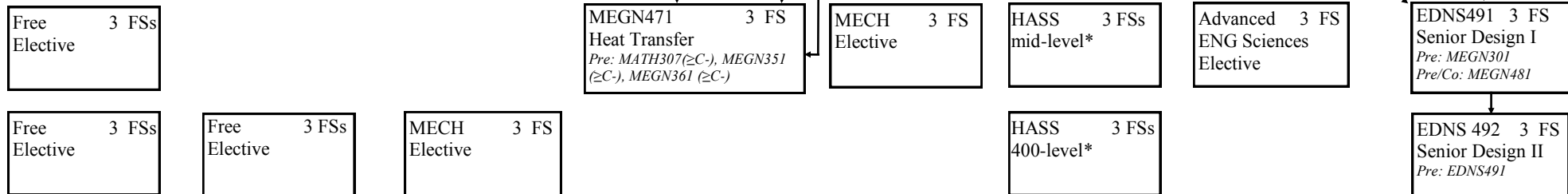
### Sophomore Year



### Junior Year



### Senior Year



\* See 2018-19 Undergraduate Catalog for list of acceptable courses.

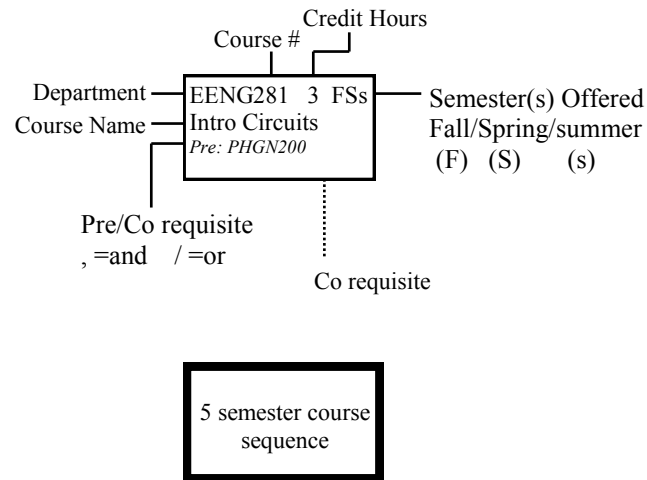
‡ PHGN215 can be substituted for specified prerequisite.

# CBEN110, GEGN101, or CSCI 101&102 may be taken for the Distributed Science

## Mechanical Electives

The list of approved Mechanical Engineering electives appears below. Students are required to take three of these courses and at least **one** must be from **Advanced Engineering Sciences**. In addition to these courses, any graduate course taught by a member of the Mechanical Engineering faculty will also be counted as a Mechanical Engineering Elective.

### Legend



### Advanced Engineering Sciences (must take at least 1)

MEGN412 Advanced Mechanics of Materials  
 MEGN416 Engineering Vibrations  
 MEGN461 Thermodynamics II  
 MEGN451 Fluid Mechanics II

### Mechanical Engineering Electives (must take at least 2; can also choose a second course from the Advanced Engineering Sciences list)

CEEN405 Numerical Methods for Engineers	MEGN486 Linear Optimization
CEEN406 Finite Element Methods for Engineers	MEGN487 Nonlinear Optimization
EBGN321 Engineering Economics	MEGN488 Integer Optimization
EENG389 Fundamentals of Electrical Machinery	MEGN493 Engineering Design Optimization
EENG390 Energy & Electricity	MEGN498 Special Topics in Mechanical Engineering
EENG417 Modern Control Design	MEGN5XX Any MEGN500+ level course
EDNS401 Projects for People	MTGN311 w/ Lab Structure of Materials
MEGN330 Intro. to Biomechanical Engineering	MTGN445 w/ Lab Mechanical Behavior of Materials
MEGN430 Musculoskeletal Biomechanics	MTGN450 Statistical Control of Materials Processes
MEGN435 Modeling & Simulation of Human Movement	MTGN463 Polymer Engineering
MEGN436 Computational Biomechanics	MTGN464 w/ Lab Forging and Forming
MEGN441 Intro. to Robotics	MTGN475 w/ Lab Metallurgy of Welding
MEGN466 Intro. to Internal Combustion Engines	NUGN520 Reactor Thermal Hydraulics
MEGN469 Fuel Cell Science & Technology	PHGN300 Modern Physics
MEGN485 Manufacturing Optimization Network Models	PHGN350 Intermediate Mechanics
	PHGN419 Principles of Solar Energy Systems

Flowchart based on the 18-19 Undergraduate Catalog