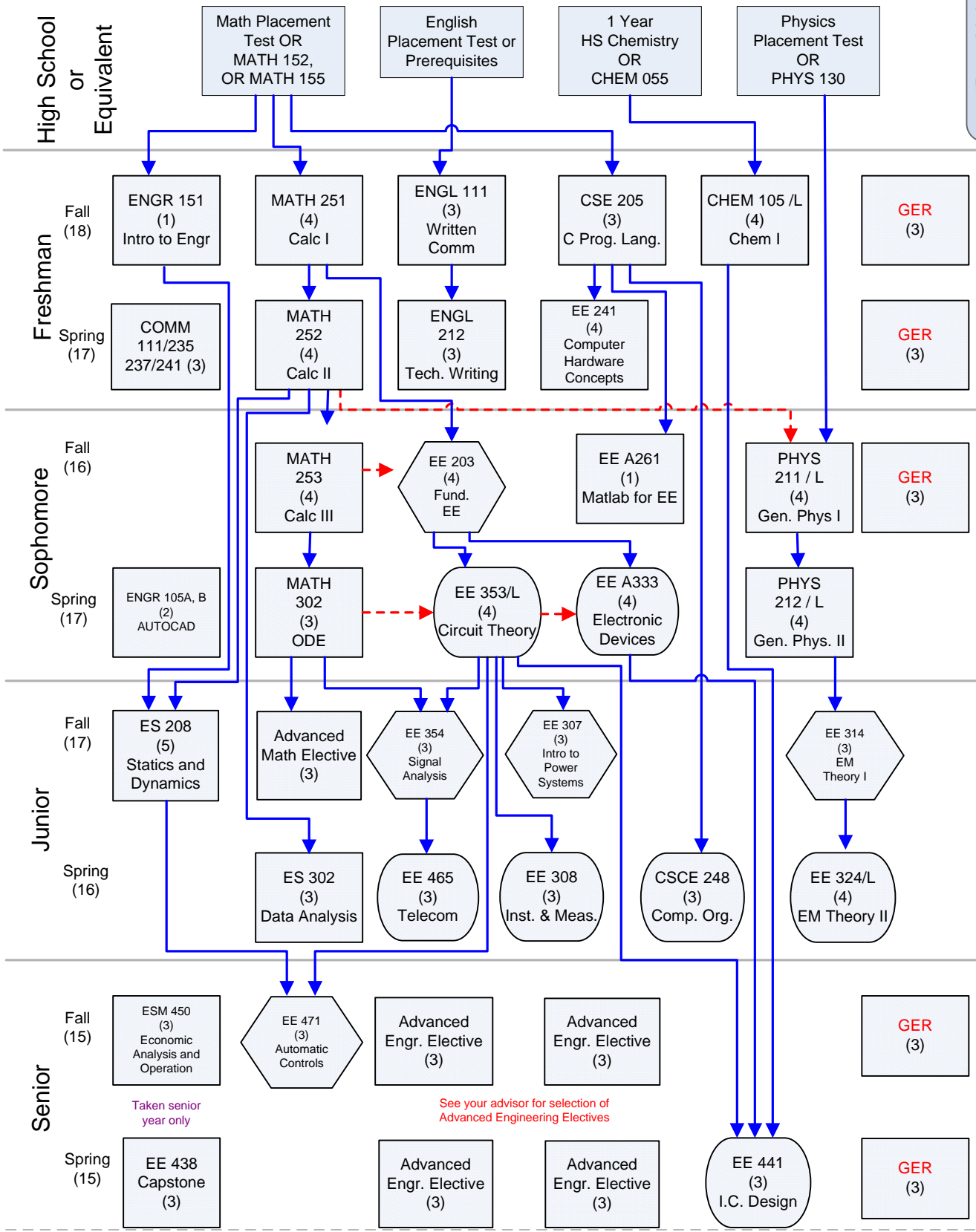


UAA Bachelor of Science in Engineering (BSE) Electrical Engineering Specialization Recommended Course Sequence & Prerequisites Flowchart

2015/2016

"Pre - Major"
Preparatory
Coursework
To Obtain "Major"
Status



"Major" Status Courses
Students with "Pre-Major" or "Major" Status are considered accepted
& members of the BSE Program

Key: Prerequisite →
 Prerequisite or Concurrent - - - - - →
 Either Class as Prerequisite · · · · · →

Offered EVERY Semester Offered FALL only Offered SPRING only

131 Total Credits Required for the Degree

Advanced Electrical Engineering/Science Electives (15 credits).

Course approval is required from your Engineering Faculty Advisor

BSE students specializing in Electrical Engineering are required to take 12 credits from the following list of elective courses. Most courses require prerequisites and faculty advisor approval is required. Students should coordinate the other degree requirements to satisfy any prerequisite requirements.

<u>Course Number</u>	<u>Description</u>	<u>Credits</u>	<u>Prerequisites</u>
CSE A445	Computer Design & Interfacing	4	EE A204, EE A241, and CSE A225
CSE A355	Computer Networking for Engineers	3	CSE A215
CSE A465	Network Security	3	CSE A355
EE A451	Digital Signal Processing	3	EE A354
EE A458	Antenna Theory	3	EE A324
EE A462	Communication Systems	3	EE A354
EE A407	Power Distribution	3	EE A204 and EE A353
EE/ME A306	Dynamics of Systems	3	EE A203, ES A208, and MATH A302
PHYS A303	Modern Physics	3	Physics 212

CE A403 or CE A603 (Arctic Engineering) or ES 411 Northern Design (3 credits). Only one of these courses may be taken.

>>>Other courses may also be taken for Advanced Engineering Electives but must first be approved by your engineering faculty advisor and petitioned.

Advanced Mathematics Electives (3 credits)

BSE students are required to take 3 credits from the following list of elective courses. Some acceptable electives require additional prerequisite courses. So, students are advised to carefully select the elective that best fits their course history and course plan.

<u>Course Number</u>	<u>Description</u>	<u>Credits</u>	<u>Prerequisites</u>
MATH A310	Numerical Methods	3	MATH A314
MATH A314	Linear Algebra	3	MATH A202
MATH A321	Analysis of Several Variables	3	MATH A202, MATH A314
MATH A371	Stochastic Processes	3	MATH A201, STAT A307
MATH A407	Mathematical Statistics I	3	MATH A202, STAT A307
MATH A410	Introduction to Complex Analysis	3	MATH A202
MATH A422	Partial Differential Equations	3	MATH A302
MATH A423	Advanced Engineering Mathematics	3	MATH A302