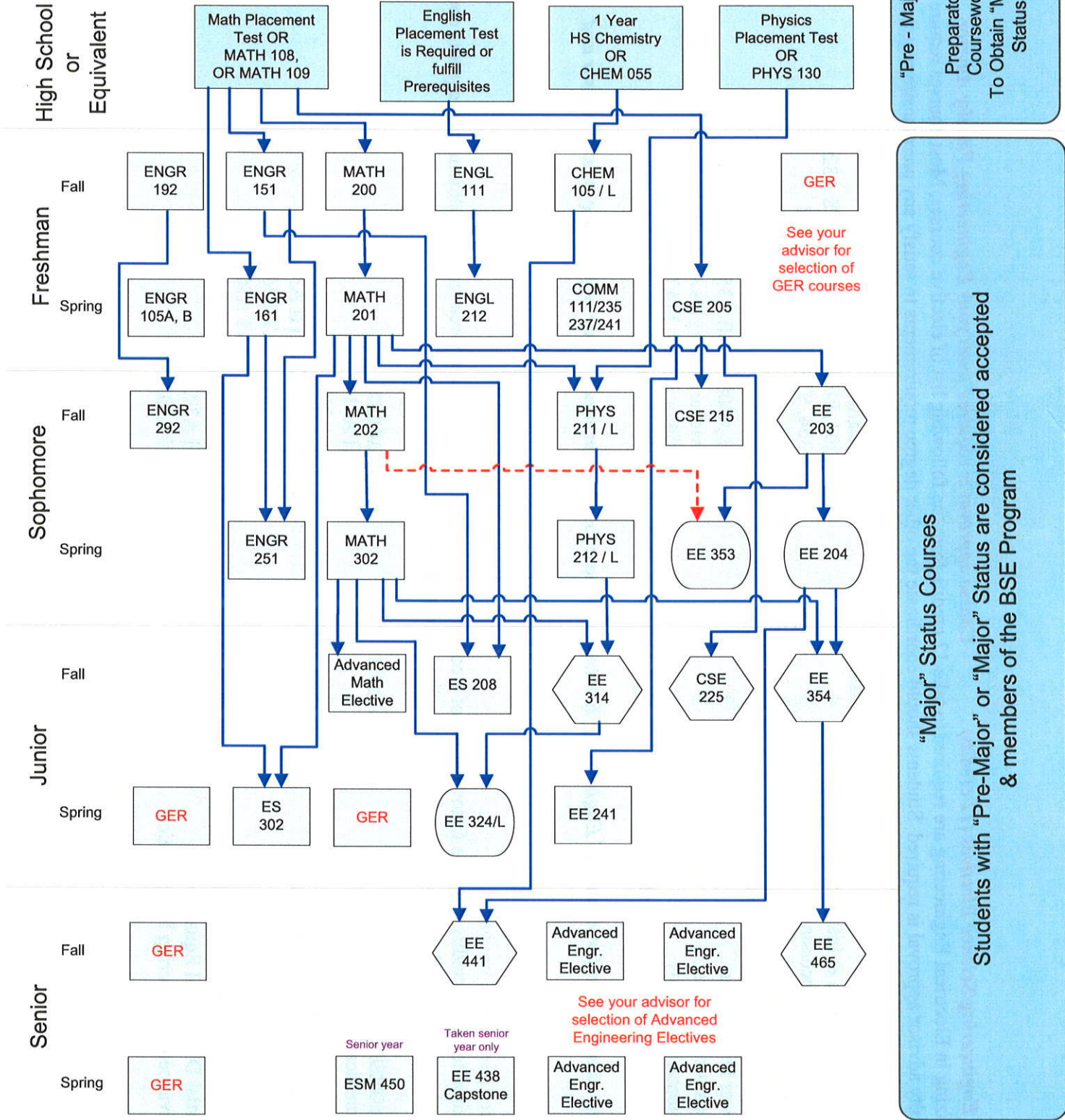


# UAA Bachelor of Science in Engineering (BSE) Electrical Engineering Specialization

2010/2011

## Recommended Course Sequence & Prerequisites Flowchart



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



132 Total Credits Required for the Degree

*Advanced Electrical Engineering/Science Electives (12 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, CS A221, CS A320
CSE A451	Digital Signal Processing	3	EE A 354, STAT A307 or ES302
CSE A465	Network Security	3	CS A413
EE/ME A308	Instrumentation & Measurement	3	ES A309
EE A407	Power Distribution	3	EE/ME A308, or EE A354
EE/ME A408	Dynamics of Systems	3	[ENGR A161 or ES A201], [ES A208 or ES A210], and MATH A302
EE/ME A471	Automatic Controls	3	EE A354 or ES309, MATH A302

*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