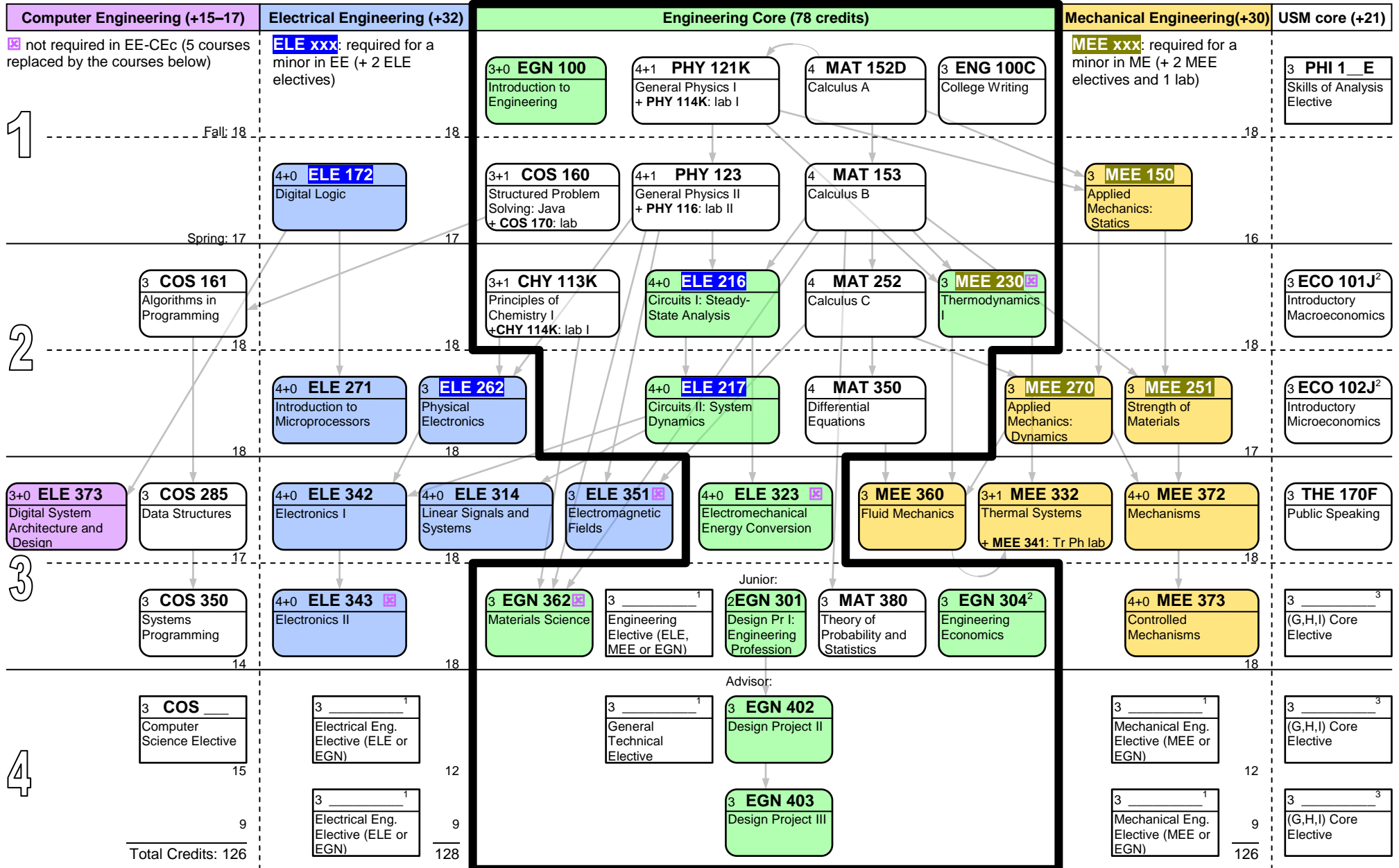


# USM Engineering – 2008/2009 Curricula – Suggested Sequence – Approved 1/29/2008

Advisor: \_\_\_\_\_ Student: \_\_\_\_\_ ID#: \_\_\_\_\_ Major: \_\_\_\_\_



Notes: <sup>1</sup> Four technical electives are required, with at least 2 in the major and at least 3 in engineering. EGN courses count as native to either engineering major.  
<sup>2</sup> Social sciences requirement: (ECO101J and ECO102J) or (EGN304 + any two J core courses)  
<sup>3</sup> (G,H,I) core group: 2 in the same letter or topically related  
 – One writing intensive course (W core) must be taken

## USM Engineering – 2008/2009 Curricula – Technical Electives

Below are the possible combinations of courses to satisfy the technical elective requirements in each major. The student must pick one technical elective from each of the four columns in the respective major.

3 ELE ____	3 ELE ____	3 ELE ____	3 ELE ____
3 EGN ____	3 EGN ____	3 EGN ____	3 EGN ____
		3 MEE ____	3 MEE ____
<b>Electrical Engineering major</b> (including the Computer Engineering concentration)			3 _____ (outside engineering)

3 MEE ____	3 MEE ____	3 MEE ____	3 MEE ____
3 EGN ____	3 EGN ____	3 EGN ____	3 EGN ____
		3 ELE ____	3 ELE ____
<b>Mechanical Engineering major</b>			3 _____ (outside engineering)

Required 300-level courses in one major count as electives in another major. Below is a list of additional engineering courses offered as technical electives. Prerequisites are listed above each course. Within a major cluster, each row depicts a specific subject area. The list is updated as new areas and new courses within an area are developed. Electives are offered on a rotation basis and in response to student interest. Please contact the Engineering Department to inquire about currently scheduled offerings. Eligible technical electives outside engineering include but are not limited to advanced courses in Mathematics, Physics, Chemistry and Computer Science.

FLE342 3 <b>ELE 412</b> Power Electronics	<b>ELE: Engineering courses that are distinctively electrical.</b>		
FLE172, FLE342 3+0 <b>ELE 442</b> Digital VLSI Circuits and Design	FLE343 3+0 <b>ELE 444</b> Analog Integrated Circuits and Design	FLE343 3+0 <b>ELE 445</b> Special Topics in CMOS Integrated Circuit Design	
FLE262 3 <b>ELE 363</b> Solid State Electronic Devices	FLE342 3+0 <b>ELE 464</b> Microelectronic Fabrication	FLE342 3+0 <b>ELE 467</b> Optoelectronics	FLE262, EGN362 3 <b>ELE 468</b> Electronic Properties of Eng. Materials
FLE271 3+0 <b>ELE 371</b> Microprocessor Systems			
FLE314, MAT350 3 <b>ELE 483</b> Communications Engineering	FLE314, COS160 3 <b>ELE 486</b> Digital Signal Processing	FLE314, COS160 3+0 <b>ELE 489</b> Digital Image Processing	

<b>EGN: Engineering courses that contain elements of both electrical and mechanical, or that are applicable to both.</b>	
FLE217, COS160 3 <b>EGN 417</b> Robot Modeling	FLE217, COS160 3+0 <b>EGN 418</b> Robot Intelligence
FLE217 3 <b>EGN 325</b> Control Systems	
FLE323 3 <b>EGN 446</b> MEMS	

<b>MEE: Engineering courses that are distinctively mechanical.</b>	
MEE360, MAT350 3 <b>MEE 432</b> Heat Transfer	MEE332, MAT350 3 <b>MEE 435</b> Advanced Thermal Systems
EGN362 3 <b>MEE 361</b> Physical Metallurgy	
FLE217 3 <b>MEE 374</b> Fundamentals of Mechanical Vibrations	