

Plan of Study

Joint NCSU-UNCA

Bachelor of Science in Engineering Curriculum Mechatronics Concentration (JEM078)

FALL SEMESTER

SPRING SEMESTER

Freshman Year

MATH 191	Calculus I	4	MATH 192	Calculus II	4
LANG 120	Fndns of Academic Writing	4	PHYS 221	Physics I	4
CHEM 132	General Chemistry	3*	<i>EGM 180</i>	<i>Intro to Mechatronics Lab</i>	2
<i>E 101</i>	<i>Intro to Engr & Prob Solving</i>	1	HUM 124	The Ancient World	4
CHEM 111	General Chemistry Lab	1	ECON 102	Microeconomics	<u>3*</u>
[DEPT] 179	LSIC: Lib Studies Intro Colloq	<u>3^a</u>			17
		16			

Sophomore Year

MATH 291	Calculus III	4	<i>ECE 209</i>	<i>Computer System Programming</i>	3
PHYS 222	Physics II	4	<i>ECE 211</i>	<i>Electric Circuits</i>	4
<i>ECE 109</i>	<i>Intro to Computer Systems</i>	3	<i>ECE 212</i>	<i>Fundamentals of Logic Design</i>	3
<i>ECE 200</i>	<i>Intro to ECE Lab</i>	4	<i>ECE 220</i>	<i>Analy Foundations of ECE</i>	3
MAE 206	Engineering Statics	<u>3</u>	<i>MAE 208</i>	<i>Engineering Dynamics</i>	<u>3</u>
		18			16

Junior Year

<i>MSE 201</i>	<i>Struc & Prop of Engr Matls</i>	3*	<i>ECE 406</i>	<i>Design of Complex Digital Sys</i>	3
<i>MAE 301</i>	<i>Engr Thermodynamics I</i>	3	<i>MAE 314</i>	<i>Solid Mechanics</i>	3
<i>ECE 301</i>	<i>Linear Systems</i>	4	<i>MAE 435</i>	<i>Principles of Automatic Control</i>	3
<i>MAE 315</i>	<i>Dynamics of Machines</i>	3	HUM 214	Rise of European Civilization	4
ARTS 310	Arts and Ideas	<u>3</u>	<i>EGM 360</i>	<i>Adv Mechatronics Design Lab</i>	<u>1</u>
		16			14

Senior Year

<i>MAE 310</i>	<i>Heat Transfer Fundamentals</i>	3	<i>ECE 455</i>	<i>Computer Control of Robots</i>	3
STAT 225	Intro to Calc-based Statistics	4	<i>EGM 482</i>	<i>Senior Design Mechatronic Engr</i>	4
<i>ECE 460</i>	<i>Digital Systems Interfacing</i>	3	<i>MAE 316</i>	<i>Strength of Mech Components</i>	3
HUM 324	The Modern World	4	DEPT 479	LSSC: Lib Studies Senior Colloq	<u>3</u>
HWP 152	Health and Fitness	<u>2^b</u>			13
		16			

Total hours shown: 126

Italics indicates NCSU Engineering course.

a Students who transfer into the Mechatronics curriculum with 30+ credits will substitute:
[DEPT] 379: LSIC for Transfer Students

b or HWP 153, 154, 155 or EDUC 319

* Cluster-specific section is required. See Cluster 3 requirement CL3, Technology, Society and Culture.

8/1/07