

CLAS BACHELOR OF SCIENCE IN ENGINEERING PHYSICS BS
Material Science & Engineering (MSE)

FRESHMEN YEAR

Fall Semester	Credits	Spring Semester	Credits
MATH 1131Q – Calculus I	4	MATH 1132Q – Calculus II	4
*CHEM 1127Q – Chem. I	4	CHEM 1128Q – Chem. II	4
PHYS 1501Q – Physics for Engineers I	4	PHYS 1502Q – Physics for Engineers II	4
ENGL 1010 or ENGL 1011 Acad. Writing	4	Gen Ed Content Area I-A	3
ENGR 1000 - Orientation	1	CSE 1010C – Intro To Computing	3
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SOPHOMORE YEAR

Fall Semester	Credits	Spring Semester	Credits
MATH 2110Q – Multivariable Calculus	4	MATH 2410Q – Differential Equations	3
PHYS 3101Q – Mechanics I	3	PHYS 2300Q – Quantum Physics	3
PHYS 2501W – Lab in Electricity, Magnetism, & Mechanics	3	MSE 2002 – Intro. To Structure II	3
Gen Ed Content Area II	3	MSE 2053 – Materials Lab I	1
*MSE 2001 – Intro. To Structure I	3	Gen Ed Content Area I-B	3
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JUNIOR YEAR

Fall Semester	Credits	Spring Semester	Credits
PHYS 3201Q – Elect. & Magnetism I	3	PHYS 3202Q – Elect. and Magnetism II	3
MATH 3410Q – Diff. Eqns. Appl.	3	PHYS 4150 - Optics	4
MSE 3003 – Structure/Properties I	3	PHYS 4210 – Intro. To Solid State Phys.	3
MSE 3055 – Microstructure Lab	1	MSE 3004 – Structure/Properties II	3
Gen Ed Content Area I-C	3	MSE 3056 – Mech. Behavioral Lab	2
MSE 3001 – Applied Thermodynamics	4	MSE 3002 – Materials Processing	4
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SENIOR YEAR

Fall Semester	Credits	Spring Semester	Credits
MSE 4901 Capstone Design I	3	MSE 4902W Capstone Design II	3
PHYS 3401Q – Quantum Mechanics	3	PHYS Elective	3
MSE 4003W – Mater. Characterization	3	MSE Elective	3
MSE Elective	3	MSE Elective	3
Gen Ed Content Area IV (if needed)	3	Gen Ed Content Area I-D	3
BIO 1107	4	Gen Ed Content Area IV (if needed)	3
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*CHEM 1127 is a prerequisite for MSE 2001 taken fall semester of sophomore year

MSE Electives: MSE 4004, 4005

PHYS Electives: 2000 Level or above

Beginning Fall 2019 one "E" course required (can simultaneously fulfill a Gen Ed Content Area requirement).