

Custom Print Degree Planner

Student ID: _____
Student Name: _____
Adviser Name: _____

Bulletin: Undergraduate Bulletin 2016-17 (A)
Program: Materials Science Minor
Minimum Credits Required: _____

Materials Science Minor

Department of Chemistry and Physics

Program Requirements

Take at least one course from each of the following required course categories to complete the required 20 credits.

Introductory Courses

Course Name	Typically Offered	Credits
NANO-101 Exploration of Nanotechnology	Fall only	3
NANO-110 Introduction to Vacuum Technology	Dept. Discretion	2
ETECH-100 Impacts of Engineering		3

Fundamentals

Course Name	Typically Offered	Credits
CHEM-325 Chemistry of Polymers (pre req: CHEM-135)	Spring only	4
CHEM-331 Quantitative Analysis (pre req: CHEM-136)	Fall only	4
CHEM-341 Chemistry of Materials (pre req: CHEM-115/125/135)	Fall only	4
ENGR-294 Mechanics of Materials (pre req: PHYS-291 or PHYS-281)		3
PHYS-283 Modern Physics (pre req: PHYS-282)	Even falls	3
PKG-210 Packaging Materials: Paper, Wood, Adhesives, and Metal (pre req: C+ or better in PKG-150 and CHEM-135)		3
PKG-220 Packaging Materials: Polymers and Glass		3

Materials Analysis, Processing and Manufacturing

Course Name	Typically Offered	Credits
CHEM-335 Instrumental Methods of Analysis (pre req: CHEM-331)	Spring only	4
ETECH-252 Material Removal And Forming Processes (pre req: ETECH-100/110/150)		3
NANO-230 Characterization Methods of Nanomaterials (pre req: CHEM-135)	Spring only	3
PLE-360 Testing and Analysis of Plastics (pre req: ENGR-275, ENGR-294, and CHEM-325)	Spring only	3

Materials Engineering

Course Name	Typically Offered	Credits
AEC-458 Structural Systems–Wood and Steel (pre req: PHYS-321)		3
AEC-459 Structural Systems-Concrete And Masonry (pre req: AEC-458)		3
ENGR-315 Metallurgy (pre req: CHEM-341)		3
NANO-301 Nanostructures (pre req: NANO-230)	Odd springs	3

Advanced Materials Science

Course Name	Typically Offered	Credits
CHEM-301 Physical Chemistry Lecture (pre req: ETECH-100/110/150)	Odd falls	3
CHEM-303 Physical Chemistry Laboratory		1
NANO-401 Nanotechnology Applications (pre req: NANO-230)	Even springs	3
PHYS-327 Solid State Physics (pre req: ETECH-100/110/150)	Odd springs	3

Note(s):

As background for the materials science minor, it is recommended that NANO 101 be selected as coursework for CISS or SRER of your general education requirements.

Current as of Oct. 26, 2016

Italics denotes revisions in progress, to be effective spring 2018 at the latest; bold face denotes a majors only course.