

Material Science Engineering

Four Year Plan (2016-2017 Catalog, ready for calculus)

FALL SEMESTER		SPRING SEMESTER		
FIRST YEAR	UF 100 Intellectual Foundations	3	ENGL 101 Introduction to College Writing	3
	CHEM 111, 111L General Chemistry I with Lab	4	CHEM 112, 112L General Chemistry II with Lab	4
	MATH 170 Calculus I	4	MATH 175 Calculus II	4
	ENGR 120 or ENGR 130 Introduction to Engineering	3-4	PHYS 211, 211L Physics I with Calculus and Lab	5
	SEMESTER TOTAL	14+	SEMESTER TOTAL	16
FALL SEMESTER		SPRING SEMESTER		
SECOND YEAR	MATH 275 Multivariable and Vector Calculus	4	MATH 333 Differential Equations	4
	PHYS 212, 212L Physics II with Calculus and Lab	5	UF 200 Civic and Ethical Foundations	3
	MSE 245 Introduction to MSE	3	DLL, DLV, or DLS course	3
	ENGL 102 College Writing and Research	3	MSE 246 Materials for Society (CID)	3
			MSE 150 Introduction to Computation for MSE	3
			MSE 280 Intro to Materials Lab Practice	1
SEMESTER TOTAL	15	SEMESTER TOTAL	17	
FALL SEMESTER		SPRING SEMESTER		
THIRD YEAR	MSE 308 Thermodynamics of Materials	3	MSE 318 Phase Transformations and Kinetics	3
	MSE 312 Mechanical Behavior of Materials	3	MSE 381 Materials Analysis Laboratory	3
	MSE 380 Materials Properties Laboratory	3	MSE 321 Structural Characterization	3
	ENGR 210 Statics	3	PHYS 309, 309L Modern Physics with Lab	4
	MATH 360 Engineering Statistics	3	Technical emphasis elective	3
	SEMESTER TOTAL	15	SEMESTER TOTAL	16
FALL SEMESTER		SPRING SEMESTER		
FOURTH YEAR	MSE 415 Materials Processing (or 410)	3	MSE 410 Electrical Properties of Materials (or 415)	3
	MSE 480 Senior Project	3	(FF) MSE 482 Senior Project II	3
	MSE 498 Materials Science Seminar	1	Technical emphasis elective	3
	ENGR 240 or ECE 210 Electrical Circuits	3	DLL, DLV, or DLS course	3
	Technical emphasis elective	3	DLL, DLV, or DLS course	3
	DLL, DLV, or DLS course	3		
SEMESTER TOTAL	16	SEMESTER TOTAL	15	

HIGHLIGHTED COURSES are offered only in the semester in which they are listed.

DISCIPLINARY LENS COURSES: Students need to take one DLL, one DLV, and two DLS courses. DLS courses must come from two different fields.

TECHNICAL EMPHASIS: Students must complete 9 credits of technical emphasis – courses that are related to one another and which support the student’s MSE degree. The emphasis area and courses must be pre-approved by the advisor.

GRADE POLICY: A C- or above is required for all prerequisite courses and for all upper division courses within the student’s major.

MSE UNDERGRADUATE ADVISORS:

Dr. Megan Frary (meganfrary@boisestate.edu, 208.426.1061)

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MATH 170 MATH 175 MATH 175 MATH 275 MATH 175 MATH 333 MATH 175 MATH 360

CHEM 111/L CHEM 111 CHEM 111/L

MATH 170 PHYS 211/L PHYS 211 PHYS 211/L MATH 175

ENGR 120

MATH 170 MSE 150 MATH 170 PHYS 211 ENGR 210

PHYS 212 MATH 275 PHYS 309/L

ENGR 120 PHYS 211 MATH 333 ENGR 240

MATH 170 CHEM 111 MSE 245 MSE 245 ENGR 102 MSE 246 CHEM 112 MSE 245 MATH 333 MSE 308 MSE 246 MSE 308 MATH 333 MSE 318 MSE 246 MSE 321 MSE 245 MSE 498 MSE 312 MSE 312 MSE 318 MSE 318 MSE 381 MSE 312 MSE 318 MSE 381 MSE 410 MSE 312 MSE 318 MSE 480 MSE 480 MSE 410 MSE 415

MSE 245 ENGR 210 MSE 312

MSE 150 MSE 245 MSE 280 MSE 246 MSE 280 MSE 308 MSE 380 MSE 380

MSE 246 MSE 312 MSE 318 MSE 321 MSE 381

MSE 380 MSE 312 MSE 318 MSE 381 MATH 360 MSE 482 MSE 482

emphasis

emphasis

emphasis

UF 100 ENGL 101 ENGL 101 ENGL 102 UF 100 ENGL 102 UF 200

DL (L,S,V)

DL (L,S,V)

DL (L,S,V)

DL (L,S,V)