

BS-MS IN MATERIALS SCIENCE ENGINEERING

Student Name: _____

Student ID: _____

[New - AY 2018-19]

Year	Fall	Lec	Lab	Cr	Grade	Winter	Lec	Lab	Cr	Grade	Spring	Lec	Lab	Cr	Grade	Summer	Lec	Lab	Cr	Grade	Total Cr	
I	MATH 121 - Calculus I			4.0		MATH 122 - Calculus II			4.0		MATH 200 - Multivar. Calculus			4.0								48.0
	CHEM 101 - General Chemistry I			3.5		CIVC 101 - Intro. to Civic Engagement (GE)			1.0		Undes. Gen Ed. #1 - (GE)			3.0								
	UNIV E101 - The Drexel Experience (GE)			1.0		PHYS 101 - Fund. of Physics I			4.0		PHYS 102 - Fund. of Physics II			4.0								
	ENGL 101 - Comp. & Rhet I: Inq & Exp. Res. (GE)			3.0		CHEM 102 - General Chemistry II			4.5		ENGL 102 - Comp. & Rhet II (GE)			3.0								
	ENGR 111 - Intro. to Engineering Design & Data			3.0		ENGR 131 or 132 - Intro. Progr. for Eng./Progr. for Eng.			3.0		ENGR 113 - First Year Engineering Design			3.0								
				14.5					16.5					17.0								
II	PHYS 201 - Fund of Physics III			4.0		ENGR 210 - Intro. to Thermo.			3.0													34.0
	ENGR 220 - Fund. of Materials			4.0		MATE 221 - Intro. to Mech. Beh. of Mat'ls.			3.0													
	ENGR 231 - Linear Eng'ng. Systems			3.0		ENGR 232 - Dyn. Eng'ng. Systems			3.0		INDUSTRY					INDUSTRY						
	Free Elective #1 -			3.0		CHEM 241 - Organic Chemistry I			4.0													
	BIO 107 - Cells, Genetics & Physiology			3.0		ENGL 103 - Comp. & Rhet. III: Themes & Genres (GE)			3.0													
				18.0					16.0													
III	MATE 214 - Intro. to Polymers	4.0	0.0	4.0		MATE 245 - Kinetics of Mat'ls.	4.0	0.0	4.0													37.5
	MATE 240 - Thermo. of Materials	4.0	0.0	4.0		MATE 341 - Defects in Solids	3.0	0.0	3.0													
	MATE 280 - Adv. Mat'ls. Lab.	2.5	3.0	4.0		MATE 315 - Proc. of Polymers	3.0	3.0	4.5		INDUSTRY					INDUSTRY						
	MATE 355 - Struct. & Charact'n.	3.0	0.0	3.0		PHIL 315 - Engineering Ethics (GE)	3.0	0.0	3.0													
	ECON 201 - Prin. of Microeconomics (GE)	4.0	0.0	4.0		ECON 202 - Prin. of Macroeconomics (GE)	4.0	0.0	4.0													
				19.0					18.5													
IV	MATE 366 - Proc. of Metallic Mat'ls. (WI)	3.0	3.0	4.5		MATE 345 - Proc. of Ceramics	3.0	3.0	4.5		Tech. Elec./Track #2 -	3.0	0.0	3.0								56.0
	MATE 370 - Mech. Beh. of Solids	3.0	0.0	3.0		MATE 351 - Elect. & Photon. Props.	4.0	0.0	4.0		Tech. Elec./Track #3 -	3.0	0.0	3.0								
	MATE 455 - Biomedical Materials	3.0	0.0	3.0		CHEC 353 - Phys. Chem. & Apps III	4.0	0.0	4.0		MATE 410 - Case Studies in Mat'ls.	3.0	0.0	3.0		VACATION						
	CHE 350 (335 previously) - Stat. & Design of Expts.	3.0	0.0	3.0		Free Elective #2 -	3.0	0.0	3.0		MATE 5XX - (Selected Core #1 (SC))	3.0	0.0	3.0								
	Undes. Gen. Ed. #2 - (GE)	3.0	0.0	3.0		MATE 510 - Thermo. of Solids (Req.)	3.0	0.0	3.0		MATE 5XX - (Optional (OC))	3.0	0.0	3.0								
				19.5					18.5					3.0 0.0 3.0								
V	Tech. Elec./Track #4 -	3.0	0.0	3.0		Undes. Gen. Ed. #3 - (GE)	3.0	0.0	3.0		Undes. Gen. Ed. #4 - (GE)	3.0	0.0	3.0								42.0
	MATE 535 - Numerical Eng. Methods (Req.)	3.0	0.0	3.0		MATE 5XX - (Selected Core #2 (SC))	3.0	0.0	3.0		MATE 5XX - (Optional (OC))	3.0	0.0	3.0								
	MATE 512 - Intro. to Solid State Mat'ls. (Req.)	3.0	0.0	3.0		MATE 5XX - (Optional (OC))	3.0	0.0	3.0		MATE 5XX - (Selected Core #3 (SC))	3.0	0.0	3.0								
	MATE 897 - Research #2	3.0	0.0	3.0		MATE 898 - M.S. Thesis (WI)	3.0	0.0	3.0		MATE 898 - M.S. Thesis (WI)	3.0	0.0	3.0								
	MATE 898 - M.S. Thesis (WI)	3.0	0.0	3.0					12.0						15.0							
				15.0																		

217.5

NOTES:

Undesignated General Education (GE): Any 3 **non-technical** courses of 3 credits or more. See: http://www.drexel.edu/coe/resources/current_undergrad/electives/liberal_studies_electives/
 Technical Elective/Track: Any **upper level** Math, Science or Engineering course, consistent with the recommendations for one of the MSE Tracks and approved by the Track Coordinator.
 The senior year is designed to be "lighter" in terms of credits, and it is expected that students will devote significant time to their MS Thesis research.

Graduate: 45.0
Undergraduate: 172.5

SC = "Selected Core" Courses - select 3 from the list.
 OC = "Optional Courses"

Students: Use "Fill" colors to indicate the status of your courses, and record the grades you received for each course completed.

- Green: Courses Completed
- Red: Courses with an F, INC or NGR
- Yellow: Courses being taken in current AY
- Blue: Courses to be taken in the future

Advisor: Sign and date below after advising meeting each year.

Year I:
Year II:
Year III:
Year IV:
Year V:

**** "Selected Core (SC)" Courses: (Select 3 Courses)**

- MATE 501: Structure and Properties of Polymers (CL) (25)
- MATE 507: Kinetics of Materials (SM) (35)
- MATE 514: Structure, Symmetry & Properties of Materials (JR) (25)
- MATE 515: Experimental Techniques in Materials (SM) (15)
- MATE 610: Mechanical Behavior of Solids (AZ) (25)
- MATE 661: Biomedical Materials I (HC) (35)

Plus any additional relevant courses if approved by the Graduate Advisor and Thesis Advisor.

Note: Fall = 15; Winter = 25; Spring = 35

**** "Optional Courses (OC)":**

- MATE 541: Intro. to TEM and Related Techniques (MT) (25)
- MATE 542: Nuclear Fuel Cycle & Materials (MT) (35)
- MATE 543: Thermal Spray Technology (RK)
- MATE 544: Nanostructured Polymeric Materials (CL) (TBD)
- MATE 563: Ceramics (MB) (35)
- MATE 572: Materials for High Temperature & Energy (MB)(35)
- MATE 573: Electrical, Magnetic and Optical Char'n of Energy Mat'ls. (SM) (35)
- MATE 576: Recycling of Materials (CS) (35)
- MATE 580: S/T Biosurfaces (CS)
- MATE 580: S/T Particulate Materials (AZ)
- MATE 580: S/T Smart Materials & Sensors (CS)
- MATE 580: S/T Carbon Materials II (YG)
- MATE 580: S/T Advanced Ceramics Processing (WS)
- MATE 582: Materials for Energy Storage (EP) (35)
- MATE 583: Environmental Effects on Materials (CW) (25)
- MATE 585: Nanostructured Carbon Materials (YG) (35)
- MATE 602: Soft Materials (CL) (35)
- MATE 702: Natural Polymers (CS) (35)
- MATE 897: Research (15, 25, 35)

Advisor Notes/Comments:

Student ID: