

# Sample Schedule for MSE (Materials Science) & Engineering Design, Innovation & Entrepreneurship (EDIE)

## Materials Science Engineering

### First Year

Fall		Units
xx-xxx	Approved PCC/SDM CIT Gen Ed	9
21-120	Differential and Integral Calculus	10
33-141	Physics I for Engineering Students	12
99-101	Computing @ Carnegie Mellon	3
27-100	Engineering Materials of the Future	12
<b>Total:</b>		<b>46</b>

### Spring

21-122	Integration and Approximation	10
xx-xxx	Intro to Engineering (second intro)	12
xx-xxx	Physics II for Engineering	12
76-101	Interpretation and Argument	9
<b>Total:</b>		<b>43</b>

### Second Year

Fall		Units
27-201	The Structure of Materials	9
27-210	Materials Engineering Essentials	6
27-215	Thermodynamics of Materials	12
15-110 OR 15-112	Principles of Computing OR Fundamentals	10
90-105	Modern Chemistry 1	10
21-254	Linear Algebra and Vector Calculus for Engineers	11
39-210	Experiential Learning 1	0
<b>Total:</b>		<b>58</b>

## Environmental Engineering + EDIE

### First Year

Fall		Units
<i>Same</i>		0
<i>Same</i>		10
<i>Same</i>		12
<i>Same</i>		3
<i>Same</i>		12
<b>Total:</b>		<b>46</b>

### Spring

<i>Same</i>		10
<b>49-101</b>	<b>Intro to Engineering Design, Innovation &amp; Entrepreneurship</b>	<b>12</b>
<i>Same</i>		12
<i>Same</i>		10
<b>Total:</b>		<b>43</b>

### Second Year

Fall		Units
<i>same</i>		9
<i>Same</i>		6
<i>Same</i>		12
<i>Same</i>		10
<i>Same</i>		10
<i>Same</i>		11
<i>Same</i>		0
<b>Total:</b>		<b>58</b>

**Spring**

27-202	Defects in Materials	9
27-216	Transport Materials	9
27-217	Phase Relations and Diagrams	12
21-260	Differential Equations	9
39-220	Experiential Learning II	0
xx-xxx	Approved PCC/SDM/II/WE Elective	9
<b>Total:</b>		<b>48</b>

**Third Year**

<b>Fall</b>		<b>Units</b>
		9
27-301	Microstructure and Properties 1	
27-xxx	MSE Restricted Elective	9
33-225 OR 03-121 OR 09-217	Quantum Physics and the Structure of Matter OR Modern Biology OR Organic Chemistry	9
39-310	Experiential Learning III	0
xx-xxx	Approved PCC/SDM/II/WE Elective	9
xx-xxx	Free Elective	9
<b>Total:</b>		<b>45</b>

**Spring**

27-305	Introduction to Materials Characterization	6
27-367	Selection and Performance of Materials	6
27-xxx	MSE Restricted Elective	9
36-220	Engineering Statistics and Quality Control	9
xx-xxx	Approved PCC/SDM/II/WE Elective	9

**Spring**

<i>Same</i>		9
<i>Same</i>		9
<i>Same</i>		12
<i>Same</i>		9
<i>Same</i>		0
<b>73-102</b>	<b>Principles of Microeconomics</b>	<b>9</b>
<b>49-206</b>	<b>Tech Business Planning (<i>Mini 3</i>)</b>	<b>4.5</b>
<b>Total:</b>		<b>52.5</b>

**Third Year**

<b>Fall</b>		<b>Units</b>
<i>Same</i>		9
<i>Same</i>		9
<i>Same</i>		9
<i>Same</i>		0
<b>70-345 or 70-340 or 70-350</b>	<b>Business Presentations or Business Communications or Acting for Business</b>	9
<b>49-205</b>	<b>Tech Venture Marketing (<i>Mini 3</i>)</b>	<b>4.5</b>
<b>49-406</b>	<b>Tech Venture Formation (<i>Mini 4</i>)</b>	<b>4.5</b>
<b>Total:</b>		<b>45</b>

**Spring**

<i>Same</i>		6
<i>Same</i>		6
<i>Same</i>		9
<i>Same</i>		9
<i>Same</i>		9

xx-xxx	Free Elective	9
<b>Total:</b>		<b>48</b>

<b>49-405</b>	<b>Leading Engineering Innovation Teams (Mini 3)</b>	<b>4.5</b>
<b>49-306</b>	<b>Engineering Design Methods (Mini 4)</b>	<b>4.5</b>
<b>49-305</b>	<b>Customer Discovery (Mini 4)</b>	<b>4.5</b>
<b>Total:</b>		<b>52.5</b>

**Fourth Year**

<b>Fall</b>		<b>Units</b>
27-401	Capstone Design 1	6
27-xxx	MSE Restricted Elective	9
27-xxx	MSE Restricted Elective	9
xx-xxx	H&SS Elective	9
xx-xxx	Free Elective	9
xx-xxx	Approved PCC/SDM/II/WE Elective	9
<b>Total:</b>		<b>51</b>

**Fourth Year**

<b>Fall</b>		<b>Units</b>
	<b>Discipline-specific engineering design course</b>	6
<i>Same</i>		9
<i>Same</i>		9
<i>Same</i>		9
<b>49-420</b>	<b>EDIE Innovation Capstone</b>	<b>9</b>
<i>Same</i>		9
<b>Total:</b>		<b>51</b>

**Spring**

27-402	Capstone Design 2	6
xx-xxx	MSE Approved CIT Technical Elective	9
xx-xxx	H&SSElective	9
xx-xxx	Free Elective	9
xx-xxx	Free Elective	9
<b>Total:</b>		<b>42</b>

**Spring**

<i>Same</i>	<b>Discipline-specific engineering design course</b>	6
<i>Same</i>		9
<i>Same</i>		9
<b>49-421</b>	<b>EDIE Entrepreneurship Capstone</b>	<b>9</b>
<i>Same</i>		9
<b>Total:</b>		<b>42</b>

