

## Sample Schedule for Chemical Engineering & Engineering Design, Innovation & Entrepreneurship (EDIE)

### Chemical Engineering

#### First Year

Fall		Units
06-100	Introduction to Chemical Engineering	12
21-120	Differential and Integral Calculus	10
09-105	Introduction to Modern Chemistry 1	10
99-101	Computing @ Carnegie Mellon	3
76-xxx	Designated Writing/Expression Course	9
<b>Total:</b>		<b>44</b>

#### Spring

21-122	Integration and Approximation	10
xx-xxx	Intro to Engineering (second intro )	12
33-141	Physics I for Engineering and Physics Students	12
xx-xxx	Select one: PCC, SDM, I&I, W&E or GE	9
<b>Total:</b>		<b>43</b>

#### Second Year

Fall		Units
06-222	Sophomore Chemical Engineering Seminar	1
06-223	Chemical Engineering Thermodynamics	12
09-106	Modern Chemistry II	10
39-210	Experiential Learning I	0
21-254	Linear Algebra and Vector Calculus for Engineers	11
xx-xxx	Computer Science/Physics II*	10
xx-xxx	Select once: PCC, SDM, I&I, W&E or GE	9

### Chemical Engineering + EDIE

#### First Year

Fall		Units
<i>Same</i>		12
<i>Same</i>		10
<i>Same</i>		10
<i>Same</i>		3
<i>Same</i>		9
<b>Total:</b>		<b>44</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
<b>73-102</b>	<b>Principles of Microeconomics</b>	9
<b>Total:</b>		<b>43</b>

#### Second Year

Fall		Units
<i>same</i>		1
<i>Same</i>		12
<i>Same</i>		10
<i>Same</i>		0
<i>Same</i>		11
<i>Same</i>		10
<b>70-345 or 70-340 or 70-350</b>	<b>Business Presentations or Business Communications or Acting for Business</b>	9

		<b>Total:</b>	<b>53</b>
<b>Spring</b>			
06-261	Fluid Mechanics		9
06-262	Mathematical Methods of Chemical Engineering		12
09-221	Lab 1: Introduction to Chemical Analysis		12
39-220	Experiential Learning II		0
xx-xxx	Computer Science/Physics II*		10-12
xx-xxx	Unrestricted Elective		9
		<b>Total:</b>	<b>52-54</b>

### Third Year

<b>Fall</b>		<b>Units</b>
06-322	Junior Chemical Engineering Seminar	2
06-325	Numerical Methods and Machine Learning for Chemical Engineering	6
06-326	Optimization Modeling and Algorithms	6
06-323	Heat and Mass Transfer	9
09-217/219	Organic Chemistry 1 or Modern Organic Chemistry	9-10
39-310	Experiential Learning III	0
06-310	Molecular Foundations of Chemical Engr	9
xx-xxx	Unrestricted Elective	9
		<b>Total:</b>
		<b>50-51</b>

<b>Spring</b>			
06-361	Unit Operations of Chemical Engineering		9
06-363	Transport Process Laboratory		9
06-364	Chemical Reaction Engineering		9
xx-xxx	Advanced Chemistry Elective		9
xx-xxx	Select one: PCC, SDM, I&I, W&E or GE		9
xx-xxx	Unrestricted Elective		9

		<b>Total:</b>	<b>53</b>
<b>Spring</b>			
<i>Same</i>			9
<i>Same</i>			12
<i>Same</i>			12
<i>Same</i>			0
<i>Same</i>			10-12
<b>49-206</b>	<b>Tech Business Planning (Mini 4)</b>		<b>4.5</b>
<b>49-305</b>	<b>Customer Discovery (Mini 3)</b>		<b>4.5</b>
		<b>Total:</b>	<b>52-54</b>

### Third Year

<b>Fall</b>		<b>Units</b>	
<i>Same</i>		2	
<i>Same</i>		6	
<i>Same</i>		6	
<i>Same</i>		9	
<i>Same</i>		9-10	
<i>Same</i>		0	
<b>49-205</b>	<b>Tech Venture Marketing (Mini 3)</b>		<b>4.5</b>
<b>49-406</b>	<b>Tech Venture Formation (Mini 4)</b>		<b>4.5</b>
		<b>Total:</b>	<b>50-51</b>

<b>Spring</b>			
<i>Same</i>			9
<i>Same</i>			9
<i>Same</i>			9
<i>Same</i>			<b>9</b>
<i>Same</i>			<b>9</b>
<b>49-405</b>	<b>Leading Engineering Innovation Teams (Mini 3)</b>		<b>4.5</b>



<b>Total:</b>	<b>54</b>
---------------	-----------

**Fourth Year**

<b>Fall</b>		<b>Units</b>
06-421	Chemical Process Systems Design	12
06-423	Unit Operations Lab	9
xx-xxx	Unrestricted Elective	9
xx-xxx	Select one: PCC, SDM, I&I, W&E, OR GE (excluding categories fulfilled after 1st year)	9
xx-xxx	Select one: PCC, SDM, I&I, W&E, OR GE (excluding categories fulfilled after 1st year)	9
<b>Total:</b>		<b>48</b>

**Spring**

06-463	Chemical Product Design	9
06-464	Chemical Engineering Process Control	9
xx-xxx	Select one: PCC, SDM, I&I, W&E, OR GE (excluding categories fulfilled after 1st year)	9
xx-xxx	Select one: PCC, SDM, I&I, W&E, OR GE (excluding categories fulfilled after 1st year)	9
xx-xxx	Unrestricted Elective	9
<b>Total:</b>		<b>45</b>

<b>49-306</b>	<b>Engineering Design Methods (Mini 4)</b>	<b>4.5</b>
<b>Total:</b>		<b>54</b>

**Fourth Year**

<b>Fall</b>		<b>Units</b>
	<b>Discipline-specific engineering design course - OR - Defer to Spring Term</b>	12
	<i>Same</i>	9
<b>49-420</b>	<b>EDIE Innovation Capstone</b>	<b>9</b>
	<i>Same</i>	9
	<i>Same</i>	9
<b>Total:</b>		<b>48</b>

**Spring**

	<i>Same</i>	9
	<i>Same</i>	9
	<i>Same</i>	9
<b>49-421</b>	<b>EDIE Entrepreneurship Capstone</b>	<b>9</b>
<b>Total:</b>		<b>45</b>

