

## 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 Intro to Engineering Design, Innovation &amp; Entrepreneurship</b>	<b>12</b>
<i>Same</i>	12
<b>73-102 Principles of Microeconomics</b>	<b>9</b>
<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 Business Presentations or Business Communications or Acting for Business</b>	<b>9</b>

		<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>

<b>Third Year</b>			
<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
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 3)</b>		<b>4.5</b>
<b>49-305</b>	<b>Customer Discover (Mini 4)</b>		<b>4.5</b>
		<b>Total:</b>	<b>52-54</b>

<b>Third Year</b>			
<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>			9
<i>Same</i>			9
<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>Fourth Year</b>			<b>Fourth Year</b>		
<b>Fall</b>		<b>Units</b>	<b>Fall</b>		<b>Units</b>
06-421	Chemical Process Systems Design	12		<b>Discipline-specific engineering design course - OR - Defer to Spring Term</b>	12
06-423	Unit Operations Lab	9	<i>Same</i>		9
xx-xxx	Unrestricted Elective	9	<b>49-420</b>	<b>EDIE Innovation Capstone</b>	<b>9</b>
xx-xxx	Select one: PCC, SDM, I&I, W&E, OR GE (excluding categories fulfilled after 1st year)	9	<i>Same</i>		9
xx-xxx	Select one: PCC, SDM, I&I, W&E, OR GE (excluding categories fulfilled after 1st year)	9	<i>Same</i>		9
		<b>Total:</b>			<b>48</b>
<b>Spring</b>			<b>Spring</b>		
06-463	Chemical Product Design	9	<i>Same</i>		9
06-464	Chemical Engineering Process Control	9	<i>Same</i>		9
xx-xxx	Select one: PCC, SDM, I&I, W&E, OR GE (excluding categories fulfilled after 1st year)	9	<i>Same</i>		9
xx-xxx	Select one: PCC, SDM, I&I, W&E, OR GE (excluding categories fulfilled after 1st year)	9	<i>Same</i>		9
xx-xxx	Unrestricted Elective	9	<b>49-421</b>	<b>EDIE Entrepreneurship Capstone</b>	9
		<b>Total:</b>			<b>45</b>

