

<b>Name:</b>				<b>UF ID:</b>	
<b>Email Address:</b>				<b>Date:</b>	
<b>Bachelor of Science in Chemical Engineering Curriculum Plan (FTIC: F24 or Later, State Core, Quest)</b>					
<b>Pre-Health Track</b>					
<i>More course information is available at <a href="http://registrar.ufl.edu/catalog">http://registrar.ufl.edu/catalog</a></i>					
<b>CP</b>	<b>Course</b>	<b>Cr</b>	<b>Course Title</b>	<b>Term to be taken</b>	<b>Comments</b>
<b>Suggested Semester 1</b>					
	<u>MAC2311</u>	4	<i>Analytic Geometry and Calculus 1, State Core GE-M*</i>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>CHM2045</u> or <u>CHM2095</u>	3	<i>General Chemistry 1 or Chemistry for Engineers 1, State Core GE-P**</i>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>CHM2045L</u> or <u>CHM2095L</u>	1	<i>General Chemistry Laboratory GE-P</i>		Take with CHM2045 or CHM2095 lecture
	<u>BSC2010</u>	3	<i>Integrated Principles of Biology 1</i>		
	<u>BSC2010L</u>	1	<i>Integrated Principles of Biology 1 Laboratory</i>		
	<u>Quest 1</u>	3	<i>Gen Ed Humanities from list GE-H<sup>†</sup></i>		Swap with writing or another GE course (semester 8)
<b>Term Credits</b>		15			
<b>Suggested Semester 2</b>					
	<u>MAC2312</u>	4	<i>Analytic Geometry and Calculus 2 GE-M*</i>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>CHM2046</u> or <u>CHM2096</u>	3	<i>General Chemistry 2 or Chemistry for Engineers 2, State Core GE-B/P**</i>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>CHM2046L</u> or <u>CHM2096L</u>	1	<i>General Chemistry 2 Lab GE-P</i>		Take with CHM2046 or CHM2096 lecture
	<u>PHY2048</u>	3	<i>Physics with Calculus 1 GE-P**</i>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>PHY2048L</u>	1	<i>Laboratory for PHY2048 GE-P</i>		Take with PHY2048 lecture
	<u>BSC2011</u>	3	<i>Integrated Principles of Biology 2</i>		
	<u>BSC2011L</u>	1	<i>Integrated Principles of Biology 2 Laboratory</i>		
<b>Term Credits</b>		16			
<b>Suggested Semester 3</b>					
<b>1</b>	<u>ECH3023</u>	<b>4</b>	<b><i>Material and Energy Balances - F, S, Sum C<sup>†</sup></i></b>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>MAC2313</u>	4	<i>Analytic Geometry and Calculus 3*</i>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>MAP2302</u>	3	<i>Elementary Differential Equations**</i>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
<b>I</b>	<u>COP2273</u>	3	<b><i>Python Programming for Engineers</i></b>		
<b>I</b>	<u>ECH2934</u>	1	<b><i>Professional Development of Chemical Engineers- F, S</i></b>		Must be taken with ECH3023 and COP2273
<b>Term Credits</b>		15			
<b>Suggested Semester 4</b>					
<b>2</b>	<u>COT3502</u>	3	<b><i>Computer Model Formulation - F, S<sup>†</sup></i></b>		Must earn a grade of C or better within two attempts (including drops and withdrawals); Prereq is COP2273.
<b>2</b>	<u>ECH3264</u>	2	<b><i>Elementary Transport Phenomena- F, S<sup>†</sup></i></b>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
<b>2</b>	<u>ECH3101</u>	4	<b><i>Process Thermodynamics- F, S<sup>†</sup></i></b>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>STA3032/STA2023</u>	3	<i>Engineering Statistics or Intro to Statistics</i>		
	<u>PHY2049</u>	3	<i>Physics with Calculus 2 GE-P**</i>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	<u>PHY2049L</u>	1	<i>Laboratory for PHY2049</i>		Take with PHY2049 lecture
<b>Term Credits</b>		16			

\* Pre-professional Calculus GPA, minimum overall GPA 2.5 required (note: a C+ = 2.33), all attempts calculated; individual class minimum grade: C.

\*\* Pre-professional Critical Tracking course, minimum overall GPA 2.5 required (note: a C+ = 2.33); individual class minimum grade: C.

<sup>†</sup> A minimum grade of "C" is required to pass this course.

Students must maintain satisfactory progress (minimum GPA of 2.0) in Chemical Engineering (ChE) courses and overall UF record.

<u>CP</u>	<u>Course</u>	<u>Cr</u>	<u>Course Title</u>	<u>Term To Be Taken</u>	<u>Comments</u>
<b>Suggested Semester 5</b>					
3	<u>ECH3203</u>	3	<b>Fluid and Solid Operations - F, S<sup>†</sup></b>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
3	<u>ECH3223</u>	3	<b>Energy Transfer Operations - F, S<sup>†</sup></b>		Must earn a grade of C or better within two attempts (including drops and withdrawals)
3	<u>ECH4123</u>	3	<b>Phase and Chemical Equilibria – F, S</b>		
	<u>ENC1101</u>	3	Expository and Argumentative Writing <i>State Core GE-C<sup>†</sup></i>		Must earn a grade of C or better for 6K words <sup>†</sup>
	<u>CHM2210</u>	3	Organic Chemistry 1 <sup>†</sup>		
	<u>EEL3003</u>	3	Elements of Electrical Engineering – F, S, Sum A (or <u>CGN 3710</u> Experiment & Instrumentation in Civil Engineering – F, S)		
Term Credits	18	15 credits total if ENC1101 is satisfied by AP, IB, or dual enrollment or taken in the summer after semester 8			
<b>Suggested Semester 6</b>					
4 or 5	<u>ECH4403</u>	3	<b>Separation and Mass Transfer Operations – F, S</b>		
4	<u>ECH4224L</u>	2	<b>Fluid and Energy Transfer Operations Lab – F, S<sup>†</sup></b>		To receive 6K words <sup>†</sup> ; you must earn a C or better; Must immediately follow the completion of ECH3203 and ECH3223; Prerequisite is STA2023/STA3032.
4	<u>ECH4714</u>	3	<b>Chemical Process Safety – F, S<sup>†</sup></b>		Must be taken before <b>or</b> with ECH4224L
	<u>ENC3246</u>	3	<b>Professional Communication for Engineers GE-C</b>		To receive 6K words <sup>†</sup> , you must earn a C or better; Must be taken before <b>or</b> with ECH4224L
	<u>CHM2211</u>	3	Organic Chemistry 2		Must earn a grade of C or better in CHM2210.
	<u>CHM2211L</u>	2	Organic Chemistry 2 Lab		
Term Credits	16				
*Consider a Summer Internship/Co-op <b>or</b> Research Experiences for Undergraduates (REU)*					
<b>Suggested Semester 7</b>					
5	<u>ECH4504</u>	4	<b>Chemical Kinetics and Reactor Design – F, S</b>		
5	<u>ECH4604</u>	3	<b>Process Economics and Optimization – F, S</b>		
	<u>ECH4824</u>	2	<b>Materials of Chemical Engineering – F, S</b>		Can be taken after ECH3264
	<u>Quest 2</u>	3	Quest 2 (Gen Ed Social & Behavioral Sciences) <i>GE-S<sup>†✓</sup></i>		
	Tech Elective	4	BCH4024 (Introduction to Biochemistry and Molecular Biology) <b>or</b> CHM3218 (Organic Chemistry/Biochemistry 2)		
Term Credits	16				
<b>Suggested Semester 8</b>					
	<u>ECH4323</u>	3	<b>Process Control Theory – F, S</b>		Can be taken after COT3502
	<u>ECH4323L</u>	1	<b>Process Control Laboratory – F, S</b>		Can be taken after COT3502; Must take with ECH4323
6	<u>ECH4644<sup>#</sup></u>	3	<b>Process Design –F, S</b>		
	ChE Tech Elective	3	Chemical Engineering Technical Elective		Recommend BME3406
	<u>ECH4404L</u>	2	<b>Separation and Mass Transfer Operations Lab – F, S<sup>†</sup></b>		To receive 6K words <sup>†</sup> , you must earn a C or better; ECH4224L must be taken before.
	<u>Gen Ed-HS</u>	3	State Core Gen Ed Humanities <i>GE-S<sup>†✓</sup></i>		
	<u>Gen Ed-HS</u>	3	State Core Gen Ed Social and Behavioral Sciences <i>GE-S<sup>†✓</sup></i>		
			<u>FE Exam</u>		<u>Licensure Process for Professional Engineers (PE) Certification</u>
Term Credits	18				
BSCHE Credits	130				

<sup>†</sup> A minimum grade of "C" is required.

<sup>✓</sup> If not already completed, include GE-S or GE-H with Diversity or International component.

◆ A minimum grade of "C" is required to earn General Education Writing credit.

# **IPPD Program**- The option of a two-semester program in your senior year that can be substituted in for 3 credits of Technical Elective with EGN4951 in Fall and 3 credits of ECH4644 with EGN4952 in Spring.

**Semester Legend:** F = Fall, S = Spring, and Sum = Summer

**Take Critical Path courses 1-6 in sequence; 1-3 (with the exception of ECH4123) require a minimum grade of "C" within 2 attempts (a drop or withdrawal is an attempt).**

**Technical Electives (Tech Elective):** 3000+ level courses in science, mathematics, or engineering with significant technical quantitative content.

**Chemical Engineering Technical Elective (ChE Tech Elective):** At least 3 cr. of ECH3XXX+ course, includes BME courses offered through CHE and ECH graduate courses. May include up to 3 credits of ChE non-course work (ECH4905, ECH4948, ECH4949, EGN4912). Courses must be offered through the ChE Department.