

Name:				UF ID:	
Email Address:				Date:	
Bachelor of Science in Chemical Engineering Curriculum Plan (FTIC: F25 or Later) Pre-Health Track					
<u>CP</u>	<u>Course</u>	<u>Cr</u>	<u>Course Title</u>	<u>Term to be taken</u>	<u>Comments</u>
Suggested Semester 1					
	<u>Quest 1</u>	3	Humanities from Quest list GE-H <sup>1,2</sup>		<a href="https://undergrad.ua.ufl.edu/uf-quest/">https://undergrad.ua.ufl.edu/uf-quest/</a>
	<u>CHM2045</u> or <u>CHM2095</u>	3	General Chemistry 1 <u>or</u> Chemistry for Engineers 1, State Core GE-P <sup>1,3</sup>		<b>Pre-req:</b> Intro to Chemistry & Algebra and Trigonometry
	<u>CHM2045L</u> or <u>CHM2095L</u>	1	General Chemistry Laboratory GE-P		Take with CHM2045 or CHM2095
	<u>MAC2311</u>	4	Analytic Geometry and Calculus 1, State Core GE-M <sup>1,3,4</sup>		See catalog for pre-reqs
	<u>ENC1101</u>	3	Expository and Argumentative Writing State Core GE-C <sup>1,5</sup>		
	BSC2010	3	Integrated Principles of Biology 1 GE-B <sup>6</sup>		
	BSC2010L	1	Integrated Principles of Biology Laboratory GE-B <sup>6</sup>		<b>Co-req:</b> BSC2010 or equivalent
Term Credits		18			
Suggested Semester 2					
	BSC2011	3	Integrated Principles of Biology 2 GE-B <sup>6</sup>		<b>Pre-req:</b> BSC2010 or equivalent
	BSC2011L	1	Integrated Principles of Biology Laboratory 2 GE-B <sup>6</sup>		<b>Co-req:</b> BSC2011 or equivalent
	<u>CHM2046</u> or <u>CHM2096</u>	3	General Chemistry 2 <u>or</u> Chemistry for Engineers 2, State Core GE-B/P <sup>1,3</sup>		<b>Pre-reqs:</b> Chemistry 1 & Algebra and Trigonometry
	<u>CHM2046L</u> or <u>CHM2096L</u>	1	General Chemistry 2 Lab GE-P		Take with CHM2046 or CHM2096
	<u>MAC2312</u>	4	Analytic Geometry and Calculus 2 GE-M <sup>1,3,4</sup>		<b>Pre-req:</b> MAC2311 or MAC3472.
	<u>PHY2048</u>	3	Physics with Calculus 1; GE-P <sup>1,3</sup>		<b>Pre-req:</b> PHY2020 or equivalent, MAC2311; <b>Co-req:</b> MAC2312.
	<u>PHY2048L</u>	1	Laboratory for PHY2048; GE-P		<b>Co-req:</b> PHY2048 or equivalent.
Term Credits		16			
Suggested Semester 3					
1	<u>COP2273</u>	3	Python Programming for Engineers <sup>7</sup>		<b>Pre-req:</b> MAC2311
1	<u>ECH2934</u>	1	Professional Development of Chemical Engineers <sup>7</sup>		Must be taken with ECH3023 and COP2273
1	<u>ECH3023</u>	4	Material and Energy Balances <sup>1,7</sup>		<b>Pre-req:</b> Chemistry 1 & MAC2312 & PHY2048; <b>Co-req:</b> Chemistry 2 & MAC2313 & MAP2302 & ECH2934
	<u>MAC2313</u>	4	Analytic Geometry and Calculus 3 GE-M <sup>1,3,4</sup>		<b>Pre-req:</b> MAC2312 or MAC3473
	<u>MAP2302</u>	3	Elementary Differential Equations GE-M <sup>1,4</sup>		<b>Pre-req:</b> MAC2312 or MAC3473
Term Credits		15			
Suggested Semester 4					
2	<u>COT3502</u>	3	Computer Model Formulation <sup>1,7</sup>		<b>Pre-req:</b> COP2273 & MAP2302 & MAC2313
2	<u>ECH3101</u>	4	Process Thermodynamics <sup>1,7</sup>		<b>Pre-req:</b> COP2273 & ECH3023 <b>Co-req:</b> COT3502
2	<u>ECH3264</u>	2	Elementary Transport Phenomena <sup>1,7</sup>		<b>Pre-req:</b> ECH3023 & MAP2302 & MAC2313
	<u>PHY2049</u>	3	Physics with Calculus 2 GE-P <sup>1,3</sup>		<b>Pre-req:</b> PHY2048 & MAC2312 <b>Co-req:</b> MAC2313
	<u>PHY2049L</u>	1	Laboratory for PHY2049 GE-P		<b>Co-req:</b> PHY2049 or equivalent
1-3	<u>STA3032/STA2023</u>	3	Engineering Statistics <u>or</u> Introduction to Statistics 1 <sup>7</sup>		<b>Pre-req:</b> MAC2311 (for STA3032)
Term Credits		16			

CP	Course	Cr	Course Title	Term To Be Taken	Comments
Suggested Semester 5					
	CHM2210	3	Organic Chemistry 1		Pre-req: Chemistry 2 or CHM2047
3	ECH3203	3	Fluid and Solid Operations <sup>1,7</sup>		Pre-req: COT3502 & ECH3264
3	ECH3223	3	Energy Transfer Operations <sup>1,7</sup>		Pre-req: COT3502 & ECH3264
3	ECH4123	3	Phase and Chemical Equilibria <sup>7</sup>		Pre-req: ECH3101
	EEL3003 or CGN3710	3	Elements of Electrical Engineering or Experiment & Instrumentation in Civil Engineering		Pre-req: MAC2313 & PHY2049 Pre-req: PHY2049
Term Credits		15			
Suggested Semester 6					
	CHM2211	3	Organic Chemistry 2		Pre-req: CHM2210 or CHM2212 Co-req: CHM2211L
	CHM2211L	2	Organic Chemistry Lab		Pre-req: Org. Chem. 1 & Chem. 2 Lab Co-req: CHM 2211
4	ECH4224L	2	Fluid and Energy Transfer Operations Lab <sup>5,7</sup>		Pre-req: ECH3101 & ECH3203 & ECH3223 & (STA3032 or STA2023) Co-req: ECH4714 & ENC2256
4 or 5	ECH4403	3	Separation and Mass Transfer Operations <sup>7</sup>		Pre-req: ECH3101 & ECH3203 & ECH3223
4	ECH4714	3	Chemical Process Safety <sup>1,7</sup>		Pre-req: ECH3101 & ECH3203 & ECH3223
1-4	ENC2256	3	Writing in the Disciplines GE-C <sup>1,5,7</sup> (Engineering-focused section).		Pre-req: ENC1101 or ENC1102; Must be taken before or with ECH4224L.
Term Credits		16			
*Consider a Summer Internship/Co-op or Research Experiences for Undergraduates (REU)*					
Suggested Semester 7					
4 or 5	ECH4504	4	Chemical Kinetics and Reactor Design <sup>7</sup>		Pre-req: ECH3264 & ECH4123
4 or 5	ECH4604	3	Process Economics and Optimization <sup>7</sup>		Pre-req: ECH3203 & ECH3223 Co-req: ECH4403
3-5	ECH4824	2	Materials of Chemical Engineering <sup>7</sup>		Pre-req: ECH3264
	Quest 2	3	Social & Behavioral Sciences from Quest list GE-S <sup>1,2</sup>		<a href="https://undergrad.ua.ufl.edu/uf-quest/">https://undergrad.ua.ufl.edu/uf-quest/</a>
	BCH4024 or CHM3218	4	Introduction to Biochemistry and Molecular Biology or Organic Chemistry/Biochemistry 2 <sup>6</sup>		Pre-reqs: CHM2211 or CHM3217
Term Credits		16			
Suggested Semester 8					
	ECH4404L	2	Separation and Mass Transfer Operations Lab <sup>5</sup>		Pre-req: ECH4403 & ECH4224L & ECH4714
	ECH4323	3	Process Control Theory		Pre-req: COT3502 Co-req: ECH4323L
	ECH4323L	1	Process Control Laboratory		Pre-req: COT3502 Co-req: ECH4323
6	ECH4644	3	Process Design <sup>7,8</sup>		Pre-req: ECH4403 & ECH4504 & ECH4604 & ECH4824.
	Gen-Ed-HS	3	State Core Gen Ed Humanities GE-S <sup>1,2</sup>		
	Gen-Ed-S&BS	3	State Core Gen Ed Social and Behavioral Sciences GE-S <sup>1,2</sup>		
	ChE Tech Elective	3	Chemical Engineering Technical Elective		
Term Credits		18			
Total Credits		130			

<sup>1</sup> A minimum grade of C is required.

<sup>2</sup> If not already completed, include GE-S or GE-H with International component

<sup>3</sup> Pre-professional Critical Tracking course, minimum overall GPA 2.5 required (note: a C+ = 2.33); individual class minimum grade: C. Drops AND withdrawals count as attempts.

<sup>4</sup> Pre-professional Calculus GPA, minimum overall GPA 2.5 required (note: a C+ = 2.33), all attempts calculated; individual class minimum grade: C. Drops AND withdrawals count as attempts.

<sup>5</sup> Satisfies 6,000 words of writing requirement. To receive writing credit, students must satisfactorily complete the writing component and receive a minimum grade of C (2.0) for the course.

<sup>6</sup> Course required by the pre-health program.

<sup>7</sup> Major Critical Path courses must be taken and completed in sequence.

<sup>8</sup> The Integrated Process and Product Design Courses (EGN4951 & EGN4952) may be substituted for 3 credits of Technical Electives and ECH4644, respectively. EGN4951 and EGN4952 are offered in Fall and Spring semesters, respectively. If you plan to graduate in the Fall and are interested in participating in the IPPD program, please contact the advising office.

- Students must maintain satisfactory progress (*minimum GPA of 2.0*) in Chemical Engineering (ChE) courses and overall UF record.
- Take Critical Path courses 1-6 in sequence.
- The following critical path courses require a minimum grade of "C" within 2 attempts (a drop or withdrawal is an attempt): ECH3023, ECH3101, ECH3203, ECH3223, ECH3264, COT3502.
- **Technical Electives (Tech Elective)**: 3000+ level courses in science, mathematics, or engineering with significant technical quantitative content. May include up to 5 credits of non-course work (internships/co-ops and research). Please consult the list of pre-approved tech electives posted on Canvas ChE Advising. If you are interested in taking a course that is not on the list, please contact the advising office.
- **Chemical Engineering Technical Elective (ChE Tech Elective)**: At least 3 cr. of ECH3XXX+ courses offered through CHE.
- **Pre-Health Students**: Find specialized advising and workshop information at <https://www.advising.ufl.edu/pre-health/>
- Additional course information is available at <https://catalog.ufl.edu/UGRD/>