Name: **UFID:**

Email Address: **Date:**

Bachelor of Science in Chemical Engineering 130-Credit Curriculum Plan (FTIC: F24 or Later, State Core, Quest)

Pre-Health Track

CP	Course	Cr	Course Title	Term to be taken	Comments
			Suggested Semester 1		
	MAC2311	*4*	*Analytic Geometry and Calculus 1, State Core GE-M**		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	CHM2045 or CHM2095	*3*	General Chemistry 1 *or* Chemistry for Engineers 1, *State Core GE-P***		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	CHM2045L or CHM2095L	1	General Chemistry Laboratory *GE-P*		Take with CHM2045 or CHM2095 lecture
	BSC2010	3	*Integrated Principles of Biology 1*		
	BSC2010L	1	*Integrated Principles of Biology 1 Laboratory*		
	Quest 1	3	*Gen Ed Humanities from list GE-H†✓*		*Swap with writing or another GE course (semester 8)*
	Term Credits	15			
			Suggested Semester 2		
	MAC2312	*4*	*Analytic Geometry and Calculus 2 GE-M**		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	CHM2046 or CHM2096	*3*	*General Chemistry 2 or* Chemistry for Engineers 2, *State Core GE-B/P***		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	CHM2046L or CHM2096L	1	General Chemistry 2 Lab *GE-P*		Take with CHM2046 or CHM2096 lecture
	PHY2048	*3*	*Physics with Calculus 1 GE-P***		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	PHY2048L	1	Laboratory for PHY2048 *GE-P*		Take with PHY2048 lecture
	BSC2011	3	*Integrated Principles of Biology 2*		
	BSC2011L	1	*Integrated Principles of Biology 2 Laboratory*		
	Term Credits	16			
			Suggested Semester 3		
1	***ECH3023***	***4***	***Material and Energy Balances - F, S, Sum C †***		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	MAC2313	*4*	*Analytic Geometry and Calculus 3**		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	MAP2302	*3*	*Elementary Differential Equations***		Must earn a grade of C or better within two attempts (including drops and withdrawals)
1	***COP2273***	*3*	***Python Programming for Engineers***		
1	**ECH2934**	1	**Professional Development of Chemical Engineers- *F, S***		MUST be taken with ECH3023 and COP2273
	Term Credits	15			
			Suggested Semester 4		
2	***COT3502***	3	***Computer Model Formulation - F, S†***		Must earn a grade of C or better within two attempts (including drops and withdrawals); Prereq is COP2273.
2	***ECH3264***	*2*	***Elementary Transport Phenomena- F, S†***		Must earn a grade of C or better within two attempts (including drops and withdrawals)
2	***ECH3101***	4	***Process Thermodynamics- F, S†***		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	STA3032/STA2023	3	Engineering Statistics **or** Intro to Statistics		
	PHY2049	*3*	*Physics with Calculus 2 GE-P***		Must earn a grade of C or better within two attempts (including drops and withdrawals)
	PHY2049L	1	Laboratory for PHY2049		Take with PHY2049 lecture
	Term Credits	*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.

† 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.

CP	Course	Cr	Course Title	Term To Be Taken	Comments
			Suggested Semester 5		
3	**ECH3203**	**3**	**Fluid and Solid Operations - F, S†**		Must earn a grade of C or better within two attempts (including drops and withdrawals)
3	**ECH3223**	**3**	**Energy Transfer Operations - F, S†**		Must earn a grade of C or better within two attempts (including drops and withdrawals)
3	**ECH4123**	**3**	**Phase and Chemical Equilibria – F, S**		
	ENC1101	3	Expository and Argumentative Writing State Core GE-C†		Must earn a grade of C or better for 6K words†
	CHM2210	3	Organic Chemistry 1†		
	EEL3003	3	Elements of Electrical Engineering – F, S, Sum A (or CGN3710 Experiment & Instrumentation in Civil Engineering – F, S)		Note: CGN3710 has not been offered since 2020.
	Term Credits	*18*	15 credits total if ENC1101 is satisfied by AP, IB, or dual enrollment or taken in the summer after semester 8		
			Suggested Semester 6		
4 or 5	**ECH4403**	**3**	**Separation and Mass Transfer Operations – F, S**		
4	**ECH4224L**	**2**	**Fluid and Energy Transfer Operations Lab – F, S†**		To receive 6K words†, you must earn a C or better; Must immediately follow the completion of ECH3203 and ECH3223; Prerequisite is STA2023/STA3032.
4	**ECH4714**	**3**	**Chemical Process Safety – F, S†**		Must be taken before or with ECH4224L
	ENC3246	3	Professional Communication for Engineers GE-C		To receive 6K words†, you must earn a C or better; Must be taken before or with ECH4224L Must earn a grade of C or better in CHM2210.
	CHM2211	3	Organic Chemistry 2		
	CHM2211L	2	Organic Chemistry 2 Lab		
	Term Credits	*16*			
			*Consider a Summer Internship/Co-op **or** Research Experiences for Undergraduates (REU)*		
			Suggested Semester 7		
5	**ECH4504**	**4**	**Chemical Kinetics and Reactor Design – F, S**		
5	**ECH4604**	**3**	**Process Economics and Optimization – F, S**		
	ECH4824	**2**	**Materials of Chemical Engineering – F, S**		Can be taken after ECH3264
	Quest 2	3	Quest 2 (Gen Ed Social & Behavioral Sciences) GE-S†✓		
	Tech Elective	4	BCH4024 (Introduction to Biochemistry and Molecular Biology) **or** CHM3218 (Organic Chemistry/Biochemistry 2)		
	Term Credits	*16*			
			Suggested Semester 8		
	ECH4323	3	Process Control Theory – F, S		Can be taken after COT3502
	ECH4323L	1	Process Control Laboratory – F, S		Can be taken after COT3502; Must take with ECH4323
6	**ECH4644#**	**3**	**Process Design –F, S**		
	ChE Tech Elective	3	Chemical Engineering Technical Elective		Recommend BME3406
	ECH4404L	2	Separation and Mass Transfer Operations Lab – F, S		To receive 6K words†, you must earn a C or better; ECH4224L must be taken before.
	Gen Ed-HS	3	State Core Gen Ed Humanities GE-S†		
	Gen Ed-HS	3	State Core Gen Ed Social and Behavioral Sciences GE-S†		
			FE Exam		*Optional if you wish to become a licensed Professional Engineer (PE).*
	Term Credits	*18*			
	BSCHE Credits	*130*			

† A minimum grade of "C" is required.

✓ 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 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.

More course information is available at http://registrar.ufl.edu/catalog