

GERMAN IEP – CHEMICAL ENGINEERING – Pharmaceutical Track

For students entering Fall 2011 (Class of 2016)

The academic plan below is a sample to demonstrate one way the dual degree program may be completed in 10 semesters. It is not meant to be a replacement for academic advising. Be sure to touch base with both your language and engineering advisor regularly.

		FALL		SPRING		
	✓	Course	Cr	✓	Course	Cr
Year One		CHM 101 General Chemistry I Lecture	3		BIO 101 Principles of Biology I	4
		CHM 102 General Chemistry I Lab	1		CHM 112 General Chemistry II Lecture	3
		EGR 105 Foundations of Engineering I	1		CHM 114 General Chemistry II Lab	1
		GER 101 German for Engineers I	3		EGR 106 Foundations of Engineering II	2
		MTH 141 Intro to Calculus w/ Analytic Geometry	4		GER 102 German for Engineers II	3
		PHY 203 Elementary Physics I Lecture	3		MTH 142 Intermediate Calc w/ Analytic Geometry	4
		PHY 273 Elementary Physics I Lab	1			
		Semester Credits	16		Semester Credits	17
		FALL		SPRING		
	✓	Course	Cr	✓	Course	Cr
Year Two		CHE 212 Chemical Process Calculations	3		BCH 311 Intro Biochemistry	3
		CHM 227 Organic Chemistry I Lecture	3		CHE 272 Intro to CHE Calculations	3
		ECN 201* Principles of Microeconomics (S)	3		CHE 313 CHE Thermodynamics I	3
		General Education Requirement (ECw)	3		CHE 332 Physical Metallurgy	3
		GER 103 Intermediate German I	3		GER 104 Intermediate German II	3
		MTH 243 Calculus for Func. of Several Variables	3		MTH 244 Differential Equations or MTH 362 Adv. Engineering Mathematics I	3
			Semester Credits	18		Semester Credits
		FALL		SPRING		
	✓	Course	Cr	✓	Course	Cr
Year Three		BPS 301 Dosage Forms I	2		CHE 348 Transfer Operations II	3
		BPS 303 Dosage Forms II	2		BIO 341 Cell Biology	3
		BPS 305 Dosage Forms III	2		CHE 464 Industrial Reaction Kinetics	3
		CHE 314 CHE Thermodynamics II	3		General Education Requirement	3
		CHE 347 Transfer Operations I	3		GER 206 Conversation & Composition II	3
		GER 205 Conversation & Composition I	3		MIC 211 Introductory Biology	4
		PHY 204 Elementary Physics II	3			
		PHY 274 Elementary Physics II Lab	1			
		Semester Credits	19		Semester Credits	19
Suggested Semester Abroad				International Internship Semester		
	✓	Course	Cr	✓	Course	Cr
Year Four		EGR/GER 411 (Professional Elective)	3			
		General Education Requirement	3		Internship in German-Speaking Country	
		General Education Requirement	3		GER 315-316	3 to 6
		General Education Requirement (L)	3			
		GER 3xx	4			
		Semester Credits	16		Semester Credits	3 to 6
		FALL		SPRING		
	✓	Course	Cr	✓	Course	Cr
Year Five		CHE 574 Biochemical Engineering	3		CHE 346 Chemical Engineering Lab II	2
		CHE 328 Industrial Plants	1		CHE 352 Plant Design and Economics II	3
		CHE 345 Chemical Engineering Lab I	2		CHE 548** Separations for Biotechnology	3
		CHE 349 Transfer Operations III	2		BPS 425 Current Good Mfg Processes	3
		CHE 351 Plant Design and Economics I	3		GER 4xx German Literature (A)	3
		CHE 425 Process Dynamics and Control	3		General Education Requirement	3
		GER 4xx	3			
		Semester Credits	17		Semester Credits	17

* Or General Education elective.

** Or approved Professional Elective.

GEN ED TALLY (See special notes about General Education Requirements on the reverse and consult with the university catalog and your major advisors.)

EC: _____
 ECw: _____
 L (reserve one for TUBS): _____
 L: _____

S: _____
 S (use ECN 201): _____
 A (400-level German Lit.): _____
 A (fine art): _____

BASIC LIBERAL STUDIES (GEN ED) REQUIREMENTS (See course catalog for more detail.)

English Communications (EC): 6 credits, one of which must be a writing course (ECw).

Social Science (S): 6 credits, one of which is fulfilled by ECN 201, which is already required for CHE majors. Consider opting for a second course with a global focus, or a focus on Germany or Europe.

Letters (L): 6 credits. “Landeskunde” (LET 151) in Braunschweig will fulfill one of your two general education Letters requirements. Consider taking a German History class (HIS 327 at URI or in Braunschweig) to fulfill the other.

Fine Arts and Literature (A):

1. **3 credits of literature:** As an IEP student the 400-level German literature course fulfills the literature portion of the Fine Arts & Literature requirement. (NOTE: This is a special exemption. If you later drop the program but keep your language major you might need to take an additional literature course.)
2. **3 credits of fine arts:** You must choose from music, theater, arts selections as indicated in catalog, or seek prior-approval for a comparable course abroad.

Note: There are additional General Education Requirements in *Mathematical and Quantitative Reasoning*, *Natural Sciences*, and *Foreign Language/Cross-Cultural Competence*, which are fulfilled automatically through your progress toward your two degrees (B.S. in Engineering and B.A. in a Language).

REQUIREMENTS FOR CHEMICAL ENGINEERING-PHARMACEUTICAL TRACK MAJOR (See course catalog and department website for more detail.)

BCH 311; BIO 101, 341; BPS 301, 303, 305, 425; CHE 212, 272, 313, 314, 328, 332, 345, 346, 347, 348, 349, 351, 352, 425, 464, 574, 548; CHM 101, 102, 112, 114, 227; ECN 201; EGR 105, 106; MTH 141, 142, 243, 244 or 362; PHY 203, 204, 273, 274; One approved professional elective (EGR/GER 411 may be used with prior approval).

REQUIREMENTS FOR IEP GERMAN MAJOR (See course catalog for more detail.)

At least 30 credits in German, not including GER 101, 102, or 392. You must complete six credits in literature, at least three of which must be taken at the 400-level; and EGR/GER 411.

SPECIAL NOTES FOR STUDENTS IN THE INTERNATIONAL ENGINEERING PROGRAM

- As a dual degree IEP student, **you are a student of both the College and Arts & Sciences and the College of Engineering.** Be sure to file for graduation (and any other paperwork such as a leave of absence, etc.) with the dean’s office of each college.
- You have two academic advisors – one for your language major and one for your engineering major. The German advisor for all IEP students is Dr. Sigrid Berka (sberka.uri.edu). You can check with your engineering department to find out who has been assigned as your engineering advisor.
- **Your general education requirements are determined by the College of Arts & Sciences Basic Liberal Studies Program for the Bachelor of Arts (not B.S.).** Consult the course catalog for details and verify any general education questions with your language advisor.
- As an IEP student, **you are exempt from the *one-course-per-discipline* rule** for the Letters, Natural Sciences, and Social Sciences Basic Liberal Studies Requirements of the College of Arts & Sciences. This is important to know in the event that you drop the program but still want to pursue your German major as a non-IEP student.
- You are required to complete a six-month professional internship abroad to be considered an IEP student.
- **It is highly recommended that you precede your semester internship with a semester of study abroad through an IEP exchange.** General education requirements, language major courses, engineering professional electives and free electives (if you have any) tend to be the easiest courses to find equivalents for overseas, so you might want to “hold” them for a semester abroad. Consult with your advisors and plan your semesters accordingly.
- ***It is YOUR responsibility to stay in contact with your engineering major advisor AND your language major advisor to make sure that you are fulfilling all requirements for both majors and your general education requirements!***