

SPANISH IEP - A-Level - CHEMICAL ENGINEERING

For students entering Fall 2006 (Class of 2011)

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 SEMESTER			SPRING SEMESTER		
Year One	CHM 101/102 Gen. Chem. & Lab.	3	CHM 112/114 Gen. Chem II & Lab.	4	
	EGR 105 Foundations of Engr. I	1	MTH 142 Calculus II	4	
	MTH 141 Calculus I	4	EGR 106 Foundations of Engr. II	2	
	PHY 203/273 Elem. Phys I & Lab.	4	PHY 204/274 Elem. Phys. II & Lab.	4	
	SPA 205 Spanish Lang. & Style I	3	SPA 206 Spanish Lang. & Style II	3	
		15		17	
Year Two	CHE 212 Chem. Proc. Calc	3	CHE 272 Intro. ChE Calcs.	3	
	CHM 227 Organic Chem.	3	CHE 313 ChE Thermo I	3	
	ECN 201 Micro. Econ (S)	3	CHE 332 Physical Metallurgy	3	
	MTH 243 Multivariable Calc.	3	MTH 244 Differential Equations OR	3	
	SPA 312 Advanced Spanish	3	MTH 362 Adv. Math.		
	Gen Ed. Requirement	3	CHM 228 OR BCH 311 OR Approved	3	
		18	Advanced Chemistry Course		
Year Three	CHE 314 ChE Thermo II	3	SPA 321 Pre-Internship Spanish	3	
	CHE 347 Transfer Operations I	3		18	
	CHM 431 Phys. Chem. I	3	CHE 348 Trans. Oper. II	3	
	CHM 335 Phys. Chem. I Lab	2	CHE 464 Indus. React. Kinetics	3	
	SPA 325 Intro. to Literary Genres	3	CHM 432 Phys. Chem. II OR Approved	3	
	Gen Ed. Requirement	3	Advanced Chemistry Course		
	17	SPA 3xx, 4xx or POR xxx	3		
		Gen Ed. Requirement	3		
			15		
Suggested Semester Abroad			International Internship Semester		
Year Four	EGR/SPA 412 (Prof. Elective/Adv. Tech Span.)	3	Internship In		
	Approved Prof. Elective	3	Spanish-Speaking Country	3-6	
	Gen. Ed. Requirement	3-6	SPA 316-317		
	SPA 3xx, 4xx or POR xxx	3			
	Approved Math Elective	3			
	15-18				
Year Five	CHE 328 Industrial Plants	1	CHE 346 Chem. Eng. Lab	2	
	CHE 345 Chem. Eng. Lab	2	CHE 352 Plant Design & Econ. II	3	
	CHE 349 Trans. Oper. III	2	Approved Professional Elective	3	
	CHE 351 Plant Design & Econ. I	3	Approved Professional Elective	3	
	CHE 425 Process Dynamics & Control	3	Gen. Ed. Requirement	3	
	400-Level Spanish Lit. (A)	3			
	Gen Ed. Requirement	3			
		17		14	

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: _____
 L: _____

S: _____
 S (use ECN 201): _____
 A (400-level Span 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 Latin America or Europe.

Letters (L): 6 credits. Consider taking a Latin American History class, such as HIS 180, 381 or 382, to fulfill the one course, and perhaps fulfilling the other Letters requirement while studying abroad.

Fine Arts and Literature (A):

1. **3 credits of literature:** As an IEP student the 400-level Spanish 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 will be fulfilled automatically through your progress toward degrees in both engineering and a language.

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

EGR 105, 106; CHE 212, 272, 313, 332, 314, 347, 348, 464, 328, 345, 349, 351, 425, 346, 352; CHM 101, 102, 112, 114, 227, 228 or approved advanced chemistry course, 335, 431, 432 or approved advanced chemistry course; MTH 141, 142, 243, 244 or 362, and an approved math elective; PHY 203, 204, 273, 274; ECN 201; 4 approved professional electives (one may be fulfilled by SPA/EGR 412 with prior approval)

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

30 credits in SPA at the 103-level and above, including 312, 316, 317, 321, 325, a 400-level engineering course taught in Spanish, and a 400-level literature course. IEP students beginning their study of Spanish at the 200-level or higher may opt to take up to six credits of Portuguese toward the completion of the major in Spanish. SPA 321 must be taken prior to the internship experience. SPA/EGR 412 is taken post-internship, or fulfilled by a course abroad by prior approval; this course may satisfy the professional elective for the CHE major.

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 Spanish advisor for all IEP students is Dr. Robert Manteiga. You can check with your engineering department to find out who has been assigned as your advisor.
- **Your general education requirements are for a B.A. (not a B.S.) as determined by the College of Arts & Sciences Basic Liberal Studies Program**. 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 Spanish 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, free electives and engineering professional electives 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 (Dr. Manteiga) to make sure that you are fulfilling all requirements for both majors and your general education requirements!**