

# SPANISH IEP - B-Level - OCEAN 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		
<b>Year One</b>	CHM 101 Gen. Chem.	3	ECN 201 Microeconomics (S)	3	
	CHM 102 Lab. For Chem.	1	MTH 142 Calculus II	4	
	EGR 105 Foundations of Engr. I	1	EGR 106 Foundations of Engr. II	2	
	MTH 141 Calculus I	4	PHY 204/274 Elem. Phys. II & Lab.	4	
	PHY 203/273 Elem. Phys I & Lab.	4	SPA 104 Intermediate Spanish	3	
	SPA 103 Intermediate Spanish	3	OCE 101 Intro. Ocean Engineering	1	
	<b>16</b>		<b>17</b>		
<b>Year Two</b>	OCE 215 Ocean Eng. Design 1	1	OCE 216 Ocean Eng. Design II	1	
	OCE 205 Ocean Eng. Design Tools	3	OCE 206 Ocean Instrumentation	3	
	MCE 262 Statics	3	MCE 263 Dynamics	3	
	MTH 243 Calculus III	3	MTH 244 Differential Equations	3	
	SPA 205 Spanish Lang. & Style I	3	SPA 206 Spanish Lang. & Style II	3	
	PHY205/275 Elem. Phys III & Lab.	4	CVE 220 Mechanics of Materials	3	
	<b>17</b>		<b>16</b>		
<b>Year Three</b>	OCE 301 Funds. of Ocean Mechanics	4	OCE 307 Intro Eng. Wave Mech & Litt.	3	
	OCE 310 Basic Ocean Measurements	3	OCE 311 Coastal Meas. & Apps	4	
	CHE 333 Engineering Materials	3	OCE 471 Underwater Acoustics	3	
	MCE 354 Fluid Mechanics	3	SPA 321 Pre-Internship Spanish	3	
	SPA 312 Advanced Spanish	3	EGR 316 Engineering Ethics (L)	3	
	<b>16</b>		<b>16</b>		
<b>Suggested Semester Abroad</b>			<b>International Internship Semester</b>		
<b>Year Four</b>	EGR/SPA 412 (Prof. Elective/Adv.Tech Span.)	3	Internship In		
	Gen. Ed. Requirement	3	Spanish-Speaking Country	<b>3-6</b>	
	Gen. Ed. Requirement	3	SPA 316-317		
	SPA 325 Intro. to Literary Genres	3			
	SPA 3xx or 4xx	3			
	<b>15</b>				
<b>Year Five</b>	OCE 416 Ocean Eng. Prof. Practice	2	OCE 496 Ocean Sys Design Project II	3	
	OCE 495 Ocean Sys Design Project I	3	Professional Elective (see notes)	3	
	OCE 421 Marine Structure Design	3	OCG 451 Oceanographic Science	3	
	Professional Elective (see notes)	3	Gen. Ed. Requirement	3	
	400-Level Spanish Lit. (A)	3	Gen. Ed. Requirement	3	
	Gen Ed. Requirement	3	Professional Elective (see notes)	3	
	<b>17</b>		<b>18</b>		

**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 (use EGR 316): \_\_\_\_\_
- 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 CVE majors. Consider opting for a second course with a global focus, or a focus on Latin America or Europe.

**Letters (L):** 6 credits. Three credits will be fulfilled by EGR 316. Consider taking a Latin American History class, such as HIS 180, 381 or 382, to fulfill the other Letters requirements.

### **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 OCEAN ENGINEERING MAJOR** (See course catalog & department website for more detail.)

EGR 105, 106, 316; CHM 101, 102, 333; CVE 220; MTH 141, 142, 243, 244; PHY 203, 204, 205, 273, 274, 275; ECN 201; OCG 451; OCE 101, 205, 206, 215, 216, 301, 307, 310, 311, 416, 421, 471, 495, 496; two approved 3-credit professional electives in Ocean Engineering ; two approved 3-credit professional elective courses at the 300, 400 or 500 level in engineering or oceanography (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 CVE 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!**