

SPANISH IEP - B-Level - BIOMEDICAL

For students entering Fall 2006 (IEP Class 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 Gen. Chem. 3 CHM 102 Lab. For Chem. 1 MTH 141 Calculus I 4 PHY 203/273 Elem. Phys I & Lab. 4 SPA 103 Intermediate Spanish 3 EGR 105 Foundations of Engr. I 1 <p style="text-align: right;">16</p>	BIO 121 Human Anatomy 4 MTH 142 Calculus II 4 SPA 104 Intermediate Spanish 3 PHY 204/274 Elem. Phys. II & Lab. 4 EGR 106 Foundations of Engr. II 2 <p style="text-align: right;">17</p>	
Year Two	CSC 200 Comp. Methods for Engr. 4 MTH 362 Adv. Engr. Math I 3 ELE 282 Biomed. Seminar I 1 ELE 201/202 Dig. Cir. Des. & Lab 4 SPA 205 Spanish Lang. & Style 3 CHM 124 Intro. to Organic Chemistry 3 <p style="text-align: right;">18</p>	ELE 212 Linear Circuit Theory 3 ELE 215 Linear Circuit Lab. 2 MTH 243 Calculus III 3 ELE 207 Intro. to Biomed. Eng. 3 SPA 206 Spanish Lang. & Style 3 ECN 201 Micro. Econ (S) 3 <p style="text-align: right;">17</p>	
Year Three	ELE 205 Microprocessor Lab. 3 ELE 313 Linear Systems 3 ELE 342 Electronics I 4 ELE 382 Biomed. Seminar II 1 SPA 312 Advanced Spanish 3 Gen Ed. Requirement 3 <p style="text-align: right;">17</p>	ELE 482 Biomed. Seminar III 1 ELE 314 Linear Systems & Signals 3 ELE 343 Electronics II 4 ELE 322 Electromag. Fields I 3 SPA 321 Pre-Internship Spanish 3 Gen Ed. Requirement 3 <p style="text-align: right;">17</p>	
Suggested Semester Abroad		International Internship Semester	
Year Four	Mathematics Elective 3 EGR/SPA 412 (Engineer. Elective/Adv. Tech Span.) 3 Gen Ed. Requirement 3 Gen Ed. Requirement 3 SPA 325 Intro. to Literary Genres 3 <p style="text-align: right;">15</p>	Internship In Spanish-Speaking Country 3-6 SPA 316-317	
Year Five	ELE 488 Biomedical Engr. I 4 ELE Design 3-4 BIO 442 Mammalian Physiology 3 BIO 444 Experimental Physiology 1 Gen Ed. Requirement 3 400-Level Spanish Lit. (A) 3 <p style="text-align: right;">17-18</p>	ELE 489 Biomedical Engr. II 4 ELE Design 3-4 Gen Ed. Requirement 3 Engineering Elective 3 ELE 400 Intro. To Prof. Practice 1 <p style="text-align: right;">14-15</p>	

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 BME 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 one of your two general education 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 BIOMEDICAL ENGINEERING MAJOR (See course catalog and department website for more detail.)

EGR 105, 106; CHM 101, 102; MTH 141, 142, 243, 362; PHY 203, 204, 273, 274; ECN 201; CSC 200; CHM 124; BIO 121, 442, 444; ELE 201, 202, 205, 207, 212, 215, 282, 313, 314, 322, 342, 343, 382, 400, 488, 489; one mathematics elective (215 or any 300- to 500-level math course, except 381; MTH 451 is recommended); two engineering electives (one may be fulfilled by SPA/EGR 412 with prior approval when available); two electrical engineering design electives (from ELE 401, 405, 408, 427, 432, 436, 437, 444, 447, 457 or 458.)

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 an engineering elective for the BME 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 determined by the College of Arts & Sciences Basic Liberal Studies Program for a Bachelor of Arts (not a 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 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!**