

THE INTERNATIONAL PLAN OPTION IN ISYE

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Introduction

The laboratory for Industrial and Systems Engineering is the world. The globalization due to the opening of markets, proliferation of trade agreements, cultural trends, consumer tastes and expansion of niche markets (e.g., folk art or agricultural products) etc requires future graduates to understand the culture, economics and geopolitical systems outside of borders. Example issues for IEs can be international supply chain, currency hedging, market risk, environmental standards, and labor practices. These practices in other countries are embedded in culture, language, economics and geopolitical system.

The International Plan program contains residence, language and global competency requirements to address these issues. For general information, please visit www.internationalplan.gatech.edu. For some ISyE related information, please read below.

Curriculum

Language Requirement The language chosen to fulfill this requirement will have a relationship to the country or region in which the student plans to fulfill the 6-month residence requirement. Any variance will require approval from the IP faculty representative and the IP Committee. The language requirement may be fulfilled by [two tracks](#).

I. Foreign Language Track

The foreign language track is intended for students fulfilling their international experience in a country where the dominant language of discourse and study is something other than English (nationally). Students in the foreign language must pass the oral proficiency exam by [ACTFL](#).

II. English Language Track

The English Language track is intended for students fulfilling their international experience in a country where the dominant language of discourse and study is English (nationally). Students may i) demonstrate the equivalence of a 2002 (or higher) course with a minimum grade of B in each course at GT or another accredited institution, ii) fill the language requirement by scoring a 4 or higher on an Advanced Placement language exam, or iii) by taking a proficiency test applicable to Modern Languages (students must bear the expense of this test).

International Experience (Residency) Requirement This experience must be characterized by living and being immersed in foreign academic, research, or work

community. The duration should be two terms of residential foreign experience for a total of at least six months (26 weeks). The two terms may consist of two terms of study, one term of study and one term of internship or research, or two terms of internship or research. The two terms do not have to be conducted consecutively and only one summer term program may count.

Course Requirements Course work can be blended into the ISyE flow chart if planned early so that the proper Humanities, Social Sciences and free electives are selected to satisfy the course requirements:

- One course focused on [*international relations*](#),
- One course on [*global economics*](#),
- One course about *a specific country or region* ,
- A culminating academic experience that integrates knowledge of the discipline and the international experience in a global context. This is incorporated into senior design.

Specific courses have been approved to fulfill these course requirements. The list is located in the catalog at <http://www.catalog.gatech.edu/specialacademic/international>. Below are some suggestions in course selection that will satisfy both BSIE and IP.

- **International relations** Select the social science elective from public policy courses or an international affairs course such as INTA 4050 – International Affairs and Technology Policy due to the emphasis on technology, energy, and transportation which are also topics appealing to IEs.
- **Global economics** Select the economics/Finance elective from ECON 4350 – International Economics. There will also be opportunities to take this course at an international campus. For example, those students that participate in the ISyE study abroad in Buenos Aires will have take a course in the Economics of Argentina which will satisfy this requirement. If courses taken abroad do not transfer as named and numbered courses on the approved list, then the IP committee must approve the substitution.
- **A country or a region** Select social science elective during their study at an international campus. For example, students that participate in the Beijing/Singapore study abroad program can take a HTS 2602 Asia in the Modern World, or students that are choosing the Latin American region can take a class in INTA 4340 – Latin American Regional Economic and Political Integration or an additional Spanish class such as SPAN 3692 – Business and Culture.
- **Language courses** Select humanities electives (6 hours) and, if needed, approved free electives (6 hours). Students have the option to take language courses at Georgia Tech and during their abroad term, though they are strongly encouraged to have at least two semesters of language before going abroad. In addition, many of the international programs have an intensive language component. For example, in the Argentina study abroad semester, there is a one-month intensive Spanish program prior to the start of normal classes.

Students are also strongly encouraged to take at least one class in the language of their abroad university even when there are English language course options.

- **Culminating course** This is incorporated into a special session of senior design ISyE 4106 IP. Students are required to compare and contrast their international experience with that of their US design experience in an addendum to be submitted to IP coordinator in ISyE. An example of such a culminating experience would be as follows. A senior design group is working with the Coca-Cola Company on the benefit and design of real-time monitoring of vending machine stocking levels. In the US, this benefit could be in the form of lower stock outs and reduction in transportation costs from dynamic routing. In Mexico, however, the design would need to be significantly different due to the nature of route deliveries (where pre-sells are not as common) and that nature of traditional soft drink selling in many locations is through the use of “mom and pop” stores (or *Tiendas abarrotes*) where advanced technology is not commonly used. The International Plan student with experience in Mexico would need to compare and contrast the difference in design and benefit for the US and Mexico. An example curriculum for an ISyE student participating in the International Plan is given in Tables 1 and 2. This example assumes prior credit for freshman language courses. The flexibility in course selection and scheduling depends heavily on advanced placement credit and/or prior language experience. As is the case with lab sciences and math, many ISyE students do come in with advanced placement credit in language. However, for those students that do not enter the program with advance placement, they will need to start language early in their studies and this will limit their flexibility in terms of elective courses and timing,