Establishing a Latin American University Honors Program: The Case of Campus Monterrey, Tecnológico de Monterrey, Mexico

MOHAMMAD AYUB KHAN AND

RUBEN MORALES-MENENDEZ

TECNOLÓGICO DE MONTERREY, CAMPUS MONTERREY, MÉXICO

HISTORY IN BRIEF

The university honors program of Campus Monterrey, Tecnológico de Monterrey, evolved from the international degree program that was first offered in the spring semester of 2002. Originally six programs were offered in the School of Business and School of Engineering:

• BA Business Administration

• BA Financial Management

• BA Finance and Accounting

• BA Marketing

• BA International Business

• BS Industrial and Systems Engineering

Once introduced, the international degree program received such a good response from the student community that, in the following semesters, the number of programs available in an international version increased from six to eleven across new areas of engineering, computer science, and humanities and social sciences. Since then, the number of academic programs with an international component has been increasing steadily. Today, thirty-nine bachelor's programs are available in this modality.

When first established, the international degree program had the following requirements:

• high school GPA , TOEFL score, and admission test score;

- completion of 33% of the curriculum in a foreign language;
- completion of additional credit, equivalent to an extra course, in either a foreign language or intercultural topics; and
- a mandatory year abroad (two semesters).

As the program matured, the requirement that 33% of the curriculum be taken in a foreign language was modified. Rather than focusing on the language of the classes, we wanted to assure the best quality of our classes regardless of the language of instruction, so we started offering classes exclusively to students in the international degree program and staffing the classes with outstanding professors on campus. In the spring of 2008, we started calling these classes "honors." A requirement of the program then became completion of at least twenty classes (approximately a third of the curriculum) either in a foreign language or in the honors format. Another change was that, rather than optionally studying a language as part of their intercultural electives, students were required to dedicate at least three out of their intercultural electives to the study of a foreign language. The international degree program successfully graduated its first cohort in the fall of 2005. As of December 2010, five hundred students have graduated with twenty-eight different bachelor degrees in the international degree program format.

HOW WE BECAME AN HONORS PROGRAM

Students participating in the international degree program possessed and maintained a higher level of academic standards than the non-international-degree-program students. Therefore, we wanted our international degree program to be recognized as a fully developed university honors program. We believed that offering an honors program on our campus would provide additional growth opportunities for students who have outstanding academic records and who have the potential and motivation to reach higher academic and extracurricular goals. We contacted the National Collegiate Honors Council (NCHC) and became both institutional and professional members, participating in different activities organized by the NCHC: national conferences in Philadelphia (2007), Denver (2008); and Washington, D.C. (2009). We participated in the Assessment and Site Visitors workshop offered by NCHC in 2010. In August 2010, we invited Rosalie Otero from the University of New Mexico to visit our campus and review our program. During her visit, Otero met with students, professors, and the directors, and she visited the university facilities. After her visit, Otero made several recommendations for transforming our international degree program into a fully developed university honors program. These recommendations included:

- establishing an honors program office;

- appointing a full-time honors director, reporting to the office of the provost;

- developing strategic and annual plans;

- acquiring visible institutional support (staff, space, budget); and

- establishing faculty, student, and advisory boards for the honors program.

Once these recommendations were implemented according to our understanding and situation, we requested that Otero review our program again along with Robert Spurrier of Oklahoma State University. At this stage we did the following:

- We prepared a self-analysis in line with the seventeen characteristics of a fully developed university honors program and sent it to Otero and Spurrier.

- We provided supplementary documents including profiles of students and faculty as well as student projects.

- We did a three-hour video conference with Otero and Spurrier, in which honors professors, honors students, honors office staff, the provost, and the vice-provost participated.

- In May 2010, we visited Otero and Spurrier at their respective universities.

In June 2011, our program was recognized as a fully developed university honors program by Otero and Spurrier.
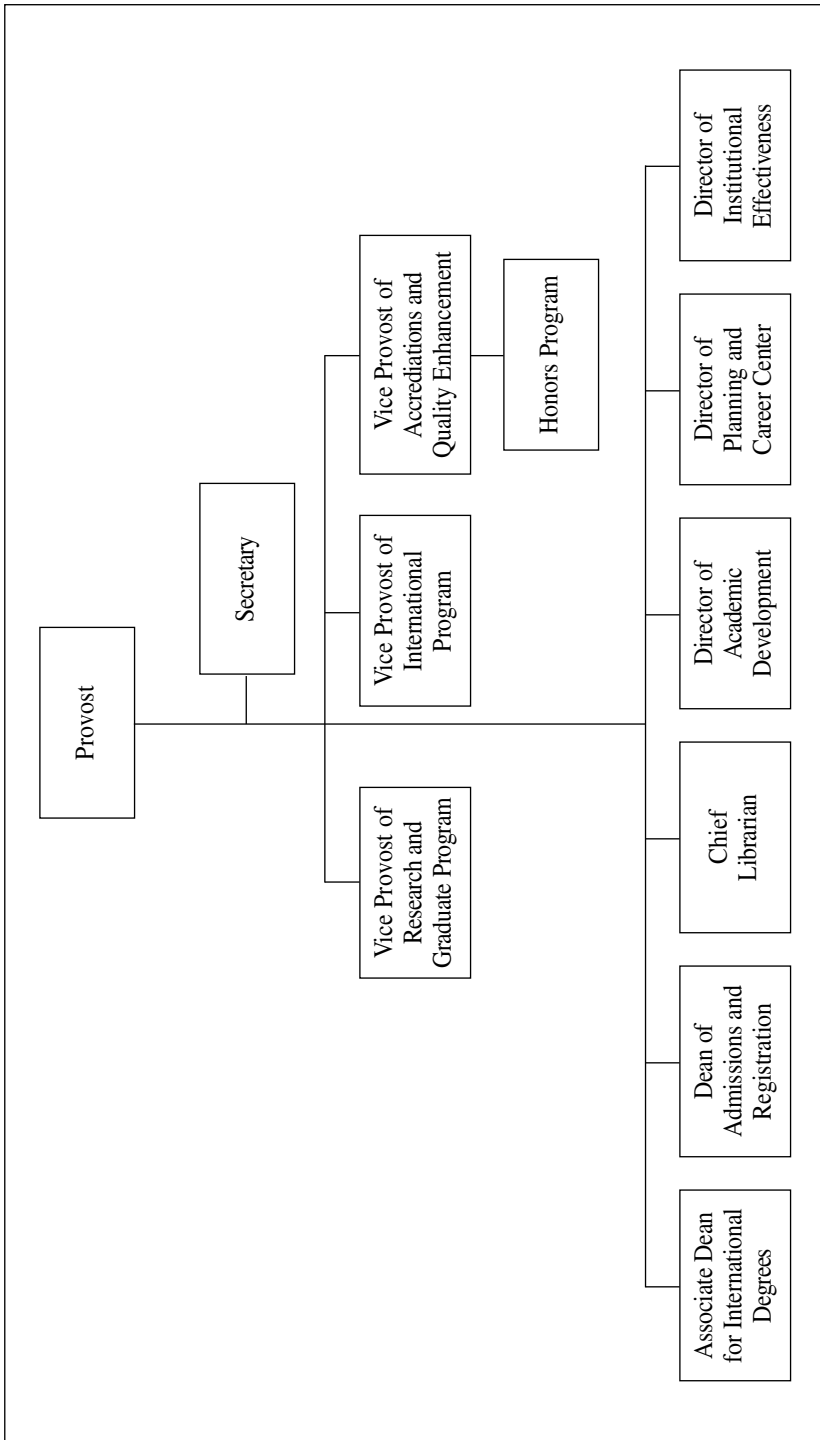
OUR HONORS PROGRAM MODEL

Our honors program is designed to identify and select talented students and to offer them an integrated educational program through our dynamic, dedicated, and well-prepared faculty. The important components of our model are described below:

ORGANIZATION OF THE PROGRAM

Our honors program belongs to the Campus Monterrey of Tecnológico de Monterrey, which is a private educational institution in Mexico that was founded in 1943. At the present time, the Tecnológico de Monterrey has campuses distributed throughout the country and has academic centers in Mexico and other Latin American countries; it also has international offices in North America, Europe, and Asia. We are a private, non-profit, independent educational institution with no political or religious affiliation. For more information about Tecnológico de Monterrey, please visit: <http://www.itesm.edu/>.

The honors program office reports to the office of the provost of Campus Monterrey, as shown in Figure 1, and the provost reports directly to the president of the campus.

Figure 1. Organizational Context of Honors Program

INSTITUTIONAL SUPPORT

Our institutional support consists of direct and indirect support staff. The direct support staff includes:

- honors program management,
- honors program advisory board,
- honors faculty council, and
- honors student council.

The indirect support system includes:

- registration and admission office,
- library,
- student halls,
- international program office,
- scholarships,
- faculty development, and
- academic departments.

MISSION

The honors program of Tecnológico de Monterrey, Campus Monterrey, is designed based on the ideals of inspiring and nurturing the talent and potential of academically high-performing students through an optimal combination of challenging, interdisciplinary, and enriching academic and extracurricular learning and teaching activities.

VISION

The honors program will be recognized by all stakeholders—students, faculty, parents, partners, university management—nationally and internationally as a leading honors education model in providing second-to-none integral educational services offered by a group of highly qualified and motivated faculty to a group of highly motivated, intellectual, and diverse young learners. Our graduates will become leaders in their field of specialization and at the same time will have a broader understanding of issues concerning humanity, now and in the future, locally and globally.

CORE VALUES

Values we promote in our students are: caring about their personal and professional integrity; respecting the dignity and rights of others; fulfilling

their duties as local and global citizens; showing concern for others without discrimination; volunteering to participate in diverse social services; and dedicating time to effective and cooperative learning. Through our honors program we wish to promote a set of core values among our graduates that we call value-building blocks:

- Excellence
- Social responsibility
- Ethics and citizenship
- Respect for others
- Hard work
- Planning and organization
- Integrity
- Collaboration

LEARNING OUTCOMES (GRADUATE COMPETENCIES)

Based on several meetings with Samuel Schuman and Ted Estess, we identified several key learning outcomes that our honors model is already promoting. We wish our graduates to have the following qualities that are established in our traditional academic programs and that we further encourage:

- global knowledge;
- the ability to speak three languages;
- the ability to communicate and to work in multi-disciplinary and multi-cultural environments;
- personal and professional networks around the world;
- critical thinking and analytical skills; and
- the ability to solve problems and make decisions.

STRUCTURE OF OUR ACADEMIC PROGRAM

Most of our undergraduate degree programs can be completed in nine semesters. A student who enters the honors program has to comply with the following academic requirements in order to complete the program:
Semester 1, 2, 3: languages courses;

- Semester 4, 5: elective courses*;
- Semester 6, 7: mandatory year of study abroad;
- Semester 8, 9: elective courses*;

- Minimum 10 courses in honors format; and

- Minimum 10 courses in a language other than Spanish (if Spanish is her/his native language).

*Elective courses include 3 language courses and 4 courses on cultural and international issues.

Table 1 compares the criteria for graduation in the regular program with the honors program.

CHARACTERISTICS OF STUDENTS

The admission and graduation requirements for our students reflect the characteristics we seek in our students.

Table 1. Regular Program Versus Honors Program

Regular Program	Honors Program
1. Total semesters: 9	1. Total semesters: 9
2. Total courses to pass: 54	2. Total courses: 54+7*= 61
3. Career grade average: 70	3. Career grade average minimum: 85
4. TOEFL: 550	4. TOEFL: 600
5. Participation in concentrations and or modalities (not required for graduation)	5. Study abroad: Two Semesters (or equivalent)
6. Social services required by the university for graduation	6. Speak a Third Language
7. CENEVAL (National external exam)	7. Minimum 10 courses in English
	8. Minimum 10 courses in Honors format.
	9. Participation in concentrations and or modalities (not required for graduation)
	10. Social services required by the university for graduation
	11. CENEVAL (National external exam)

CENEVAL: Centro Nacional de Evaluacion para La Educacion Superior

Admission

In order to gain admission to the honors program, a student must comply with requirements beyond those for the university. The requirements for honors differ according to the backgrounds of the applicants:

Career average score:

- For students coming from the high schools of Tecnológico de Monterrey: 85/100
- For students coming from other high schools: 90/100

Admission score (SAT equivalent):

- For students coming from the high schools of Tecnológico de Monterrey: 1150
- For students coming from other high schools: 1300

TOEFL Score:

- 550 for all.

Other requirements include an interview with the honors director, a brief CV, and an essay showing particular interests in the honors program, commitment to completion of its requirements, and potential to contribute to the honors program.

Graduation

In order to graduate from the honors program and receive the Certificate of Honors, a student must fulfill the following conditions:

- pass 10 required honors courses with a grade of 85+;
- earn a career average of 85+ including the honors courses;
- have a TOEFL score of 600;
- participate in a year-long study abroad program;
- speak a third language other than Spanish and English;
- take a minimum of 10 courses in English language; and
- pass 7 electives.

CHARACTERISTICS OF THE FACULTY

Our honors faculty members come from different academic disciplines (engineering, humanities, social sciences, business, and information technology) inside the campus, so they are already working as full- or part-time teachers. An honors faculty member is identified and selected, in direct collaboration with the chair of each academic department, based on the following criteria:

- He/she is a full- or part-time faculty member with a minimum five years of teaching experience at the undergraduate level or higher; two of the five years must be at Tecnológico de Monterrey. Preferences are given to associate and full professors. Alternatively, the honors director may, in collaboration with the honors faculty committee, evaluate a potential faculty member for eligibility based on other criteria.

- For teaching foundation courses, he/she possesses a master´s degree.

- For teaching specialized disciplinary courses and general education courses, he/she possesses a master´s or doctoral degree in the field or equivalent.

- He/she has received a percentile ranking above 60 in student evaluations during the last two semesters.

- He/she has received accreditation within the educational model of Tecnológico de Monterrey.

- He/she maintains an excellent reputation among directors, professors, and students.

- His/her image and behavior pattern reflect the values and ethical standards of the institution.

- He/she is proactive in carrying out responsibilities within the academy, institution, and community.

- He/she has received a minimum training of 40 hours in the field of modern quality teaching, critical thinking, and honors education.

- He/she is a leader in his or her field of specialization.

- He/she possesses at least one of the following characteristics: fluency in one or two foreign languages; academic or work experience abroad; activity in consulting, outreach or research; external relationships with, for instance, governmental agencies, NGOs, industry, and/or research centers; and openness to designing and testing new educational models, products, or research lines involving undergraduate students.

The honors director, in collaboration with the chairs of the academic departments, routinely (at least once per semester) reviews the performance of honors faculty members and gives them feedback.

CHARACTERISTICS OF HONORS COURSES

An honors course should possess the following characteristics to differentiate it from a regular course or section of a course:

- A course database must be in advanced Blackboard format.

- The course must be designated "HONR" in Blackboard, in Banner, and in student grade sheets.

- The course format must be designed under the guidance of an expert in the formulation and implementation of honors courses.

- Course reviews, redesigns, and updates—including bibliographies, teaching materials, and teaching activities—should take place each semester and at the end of the year.

- The teacher must have a pedagogical method, preferably project- or problem-based. Case-based learning is also acceptable.

- Student-faculty, one-on-one advising sessions are required during the semester.

- Learning and teaching activities must promote critical thinking in students.

- Learning and teaching activities must demonstrate diversity in some or many of the following ways:

  - structured case discussion in class,

  - written assignments based on literature review,

  - closed- and open-book exams,

  - oral presentations on assigned topics,

  - company-based research work,

  - case studies,

  - field visits,

  - laboratory work,

  - library visits,

  - field-related practical demonstrations,

  - guest speakers from industry and/or on emerging topics,

  - online team-teaching,

  - video conferences,

  - simulations,

  - role playing,

  - debate,

  - experimental learning, and

  - moral dilemma exercises.

Such activities should be an important component of the final grade in any honors section.

All courses offered in an honors format should be identified, evaluated, approved, and scheduled by the honors director in collaboration with department chairs. We encourage our honors faculty to teach in different formats, including team teaching across different disciplines. The class size is limited to 30, with an average of 15–20, whereas the normal university class size is at least 40. We value the opportunities that small classes afford students to frequently interact with each other and with the faculty, and we want faculty to provide personalized attention to students.

Curriculum

The honors curriculum is designed to provide students an integral learning and teaching environment supported by structured academic programs that encourage intellectual discovery, talent management, global awareness, and cultural understanding. Additionally, the curriculum promotes learning about—and quantitative application of—information and models. Honors courses, selected from the regular plan of study, are offered across a wide variety of disciplines:

- Engineering, Architecture, Art and Design;
- Computer Sciences & Information Technology;
- Medicine (under consideration);
- Biotechnology;
- Business;
- Social Sciences; and
- Humanities.

In total, an honor student takes a minimum of 10 honors courses in order to complete the program. These courses are part of our traditional academic programs and are identified in collaboration with the directors of academic departments, divisions, or schools. Currently, we are offering courses in the basic and general education area plus some electives or optional courses. However, in the near future we would like to have these minimum 10 courses, which are required for the Honors Program Certificate, distributed among 9 semesters as follows (see Appendix A for our curriculum):

- Foundation courses (common area): 5 courses (8 units per course): 40 units
- Disciplinary courses (specialization area): 2 courses (8 units per course): 16 units
- General education courses (generalization area): 2 courses (8 units per course): 16 units

- Independent study (practical or research course): 1 course (8 units per course): 8 units

The foundation courses provide basic but in-depth understanding of different disciplines. General education courses provide key competencies such as ethics, social responsibility, oral and written communication, and global awareness. Independent studies provide experiential learning, which may include internships, study abroad, off-campus programs, community service, independent research, and teaching assistantships. Overall, our honors program curriculum, like other models, is guided by the following outcomes for students:

- acquiring basic skills and knowledge,
- adapting to an interconnected world, and
- connecting knowledge with experience.

INTERNATIONAL OPTIONS

Our honors program's strength lies in the international experience our students have. Tecnológico de Monterrey offers more than three hundred international exchange programs with numerous universities in different countries of the world. The international options include:

- International exchange program: studying for a semester or year abroad, paying the academic fee to the Tecnológico de Monterrey.

- Study abroad: studying in a foreign university, paying the academic fee to the foreign university and receiving help in planning from our program director.

- Internships: working at a company in a foreign country during a semester and getting academic credit, based on how many hours the student works, or credit toward professional practice.

- Language semester: studying a foreign language abroad and getting credit for the language course or courses at Tecnológico de Monterrey.

- Specialization semester: studying in a foreign country and taking 5 to 8 courses (depending on the workload or work hours required for each course) in a specific area and getting credit for optional courses at Tecnológico de Monterrey.

- Certificate of specialization: receiving a certificate from a foreign university when the required program is complete (this option requires that a student take at least 33% of the career study plan in a language different from Spanish, obtain a score of 600 in TOEFL, meet the requirements of the foreign university, and meet the entry requirements of Tecnológico de Monterrey).

- Double degree program: earning a degree from Tecnológico de Monterrey and the foreign university upon completing the specified requirements of both institutions (a student must pass 12 to 16 courses or the equivalent in the foreign university).

- Professional plus master´s degree program: earning an undergraduate professional degree from Tecnológico de Monterrey and a master´s degree from the foreign university after completing the specified admission and graduation requirements of both institutions.

ACHIEVEMENTS

Number of Courses and Groups

The total number of courses or sections scheduled on campus during the winter semester of 2011 was 4509, of which 32 were in honors. Table 2 shows the number of honors courses and sections offered during the years 2008–2011. Typically, we receive fewer students in the winter semester than in the fall. The slight decrease (-2) in numbers from the winter of 2010 to the winter of 2011 probably resulted from academic departments offering fewer courses and wanting to maintain high enrollments. Overall, however, growth has been steady and positive

Courses Offered in English

Table 3 shows the number of courses offered in English. The rationales for teaching courses in English are: to offer local students an option to take a course or two in English in order to learn the language; to support honors program students, as they are required to take a certain number of courses in English; to provide courses in English for foreign students coming to Tecnológico de Monterrey; and to allow foreign faculty an option to teach classes at Tecnológico de Monterrey. The decline in the number of courses in English may have two causes: faculty members feel that it is more work to

Table 2. Number of Courses and Sections Offered During the Last Few Years

	2008 Jan–May	2008 Aug–Dec	2009 Jan–May	2009 Aug–Dec	2010 Jan–May	2010 Aug–Dec	2011 Jan–May
Number of courses	17	17	21	23	25	28	25
Number of sections	18	26	24	31	34	37	32

teach a course in English than in Spanish, and we ask faculty to have a TOEFL score of 600 plus to teach a course in English. When we started offering courses in English, there were no such requirements, but later we introduced some training and TOEFL requirements to assure the quality of courses taught in English. To encourage faculty to teach courses in English, we offer academic as well as financial incentives, such as helping preparing the course database.

Professors

Since the inception of the honors program, 28 professors (1.56% of the total campus faculty) professors have taught honors courses in different fields. The average number per semester is between 25 and 30 faculty members. Any honors faculty member can teach one or two honors courses per semester. Also, we offer some honors courses only once a year, not every semester. We have offered courses during the summer but would like to discourage this option in the future since honors courses require the time of a full semester.

Students per Academic Program per Semester

Table 4 compares the number of campus-wide students to those registered in the honors program per academic area in the winter semester of 2011.

Graduation Statistics

During the winter semester of 2011, Campus Monterrey graduated a total of 1147 students, of which 35 students graduated from the honors program. Table 5 shows further details. Graduating 35 students from the honors program during one semester is an encouraging number since the program is demanding and challenging in many ways for students, parents, and the university.

Table 3. Number of Courses and Groups Offered in English

	2008 Jan–May	2008 Aug–Dec	2009 Jan–May	2009 Aug–Dec	2010 Jan–May	2010 Aug–Dec	2011 Jan–May
Number of courses	123	124	125	123	115	105	109
Number of sections	155	158	157	161	149	135	88

Table 4. Summary Statistics per Academic Area

Academic Area	Total Students	Honors Students	%age
ENCSH (School of Business, Social Sciences and Humanities)	4935	292	5.92
EITI (School of Engineering and Information Technology)	5344	418	7.82
EBA (School of Biotechnology and Nutrition)	926	36	3.89
EMCS (School of Medicine and Health Sciences)	1451	0	0.00
EAAD (School of Architecture, Art and Design)	1816	47	2.59
AEP (Professional Programs for Especial Students)	6	0	0.00
IPU (International Programs for Professional)	136	0	0.00
Total	**14614**	**794**	**5.43**

Table 5. Summary Statistics of Graduates per Academic Area

Academic Area	Total Students	Honors Students	%age
ENCSH (School of Business, Social Sciences and Humanities)	392	14	3.57
EITI (School of Engineering and Information Technology)	445	20	4.49
EBA (School of Biotechnology and Nutrition)	82	1	1.22
EMCS (School of Medicine and Health Sciences)	115	0	0.00
EAAD (School of Architecture, Art and Design)	113	0	0.00
AEP (Professional Programs for Especial Students)	0	0	0.00
IPU (International Programs for Professional)	0	0	0.00
Total	**1147**	**35**	**3.05**

Profile of Our Graduates

Table 6 shows the profile of our graduates. Most of our students receive extra diplomas or awards in addition to the requirements of the honors program.

Nationality of Students

In January–May 2011, the total campus population was 14614, including 544 foreign students (3.722%). Of the 544 foreign students, 60 (11%) were honors students.

Students' Preferences for Foreign Languages

Table 7 shows students' preferences for foreign languages during the past several semesters. According to winter 2011 data, 40% of students showed a preference for German as a third language, followed by French at 39%. Historically, preference for the German and French languages has remained persistent. English (foreign) and Spanish (native) are commonly spoken languages among our students.

Students' Preferences for Foreign Countries

Generally, our records show that our students prefer the United States, France, Germany, and Italy for studying abroad. Of course, their preferences reflect the availability of a particular program in a particular country and area of studies. For example, students of art and design prefer Italy; Business,

Table 6. Profile of Our Graduates

Total of Graduated Students	35
Graduated with a Double Degree	10
Graduated with a Minor or Specialization	8
Outstanding Career Grade Average	5
Mention of Honorific Award	11
Mention of Excellency Award	6
Student Development Diploma	9
Students with TOEFL Score >= 600	34
Students with TOEFL Score >= 580	35
Graduated Students with a GPA >=85	35

Social Sciences, and Humanities prefer France, followed by the U.S.; and students of Engineering and Information Technology like Germany, followed by the U.S. (See Appendix B for further details.)

Snapshot of Student Population Mobility in a Single Semester

Table 8 shows the changes in our student population during the semester of January–May 2011. The program received 39 new honors students but also lost 65 students who did not register again for the honors program for a variety of reasons: weak academic performance; unwillingness to accept the challenges of the honors program; and financial constraints preventing their study abroad program. We graduated 35 students, and we sent out 162 students abroad on double degree programs (56) and student exchange programs (106).

PROGRAM EVALUATION AND FEEDBACK

We have designed several mechanisms to monitor the progress of the honors program on a semester and annual basis. We monitor the following areas:

Table 7. Preferences for Foreign Languages

	2008 Jan–May	2008 Aug–Dec	2009 Jan–May	2009 Aug–Dec	2010 Jan–May	2010 Aug–Dec	2011 Jan–May
German	34%	34%	36%	30%	34%	34%	40%
Chinese	12%	9%	9%	6%	7%	5%	1%
French	30%	25%	32%	33%	37%	31%	39%
Italian	12%	10%	12%	13%	11%	13%	4%
English	7%	17%	8%	15%	6%	13%	13%
Japanese	5%	5%	4%	4%	4%	4%	3%

Table 8. Student Population Mobility

First-semester students (new entrance to the program)	39
Withdrawals (dropouts)	65
Total re-registration (existing population) for following semester	755
Graduated students	35
Study abroad	162

National Collegiate Honors Council Indicators

Our program has been recognized by the recommended site visitors of the National Collegiate Honors Council (U.S.), as a successful, fully developed honors program. The NCHC uses seventeen criteria to determine if a program is fully developed, and we do self-analysis using these criteria.

Academic Performance Evaluation

We administer a critical thinking questionnaire—California Critical Thinking Skills Test (CCTST)—to our students. The five variables used in testing are: inductive reasoning; deductive reasoning; analysis and interpretation; inference; and evaluation and explanation. We have also administered an Educational Testing Service (ETS) test to 33% of our freshman, junior, and senior honors students with excellent results.

Program Impact Evaluation

In order to evaluate the learning outcomes of the program, we use an online system called System for the Evaluation Management of Academic Programs or SAEP (Sistema para la Administration de la Evaluacion de Programa Academicos). Involving faculty and department chairs, experts in SAEP do the following:

- review the profiles of the graduates (graduate competencies);
- design a plan of evaluation (identify courses that help developing those competencies; define a specific learning activity within these courses, and design rubrics to evaluate the learning outcomes with the involvement of training staff);
- evaluate the results through faculty reports at the end of every semester; and
- improve actions if necessary.

Faculty

In order to select, develop, and evaluate an honors professor, we use the following indicators:

- academic preparation;
- faculty status (our preference is full-time rather than adjunct faculty);
- classification (from instructor to full-professor);
- number of teaching years both at and ouside of Tecnológico de Monterrey;
- student evaluations;

- training records;
- TOEFL scores;
- training in honors education;
- certification in any teaching method;
- participation in research and consulting;
- awards received; and
- other activities such as social service.

Course Indicators

Individual course indicators are measured against the minimum requirements established by the honors office. An honors course must incorproate these elements:

- technological platform (database in the advanced version of Blackboard),
- honors teaching method,
- use of I-clicker,
- research project,
- critical thinking element,
- software or laboratory, and
- field visit.

Student Indicators

The student indicators, as shown in Table 9, are measured against the minimum requirements established by the honors program office.

PARTICIPATION IN NCHC AND REGIONAL HONORS COUNCIL ACTIVITIES

1. NCHC Conference in Phoenix, Arizona, 2011.

2. New Directors Institute held in Lincoln, Nebraska, July 7–10, 2011.

Currently we have both institutional and professional memberships and we are receiving copies of the NCHC Monograph Series, *Honors in Practice*, and the *Journal of the National Collegiate Honors Council*.

INTER-HONORS COLLABORATIONS

Mohammad Ayub Khan and Ruben Morales-Menendez visited the University of New Mexico and Oklahoma State University in the U.S. in order to learn about their honors programs. During the visit, they visited honors

facilities and met with honors administrators, honors faculty, and honors students. Future collaborative projects they discussed during the visit included:

- honors faculty exchanges,
- honors student exchanges,
- joint summer schools and seminars,
- team teaching, and
- video conferences.

CHALLENGES AND BENEFITS OF OFFERING AN HONORS PROGRAM.

CHALLENGES

Matching Teaching and Learning Strategies

Teaching and learning have different orientations (Ulrich). In teaching, the focus is on input and the teacher whereas in learning the focus is on outcomes and the students (Boyatzis). Bringing these two elements together is a challenge. The first decision facing honors directors is identifying the best

Table 9. Student Indicators

Entry Checklist	Maintenance Checklist	Graduation Checklist	Post-Graduation Checklist
1. Country, State	1. Grade average	1. Career average	1. Year of graduation
2. Admission score	2. Semester	2. TOEFL	2. Job situation and position or post
3. Grade average (high school)	3. Participation in different activities, concentrations, modalities,	3. Third language	3. Company, country
4. Languages		4. A year abroad (equivalent of two semesters)	4. Salary average
5. Scholarship or awards	4. Honors courses	5. Honors courses	5. Any other information (alumni association, social activities, higher studies, etc.)
6. TOEFL	5. English courses	6. Course in English	
7. Gender	6. Third language	7. Completion of required 7 elective courses	
8. Career (major)	7. Study abroad		
9. Conduct	8. Progress on required 7 elective courses	8. Any other distinction	

combination of teaching strategies and learning styles to support honors education.

Financial Support

Offering an honors program requires budget allocation and resource redistribution. Small classroom size means lower class efficiency when university classes typically enroll 40+ students. Facilities such as offices, laboratories, and library space require additional investment from the university (Collins et al.). Universities must allocate enough financial resources to support the honors program, which is a serious challenge in times of funding shortages.

Identifying and Developing Activities for Students

Implementing extracurricular activities for honors students requires time and effort. Such activities include conferences, seminars, internships, research projects, socio-cultural events, and international programs (Collins et al.), all of which require management time, logistical support, and financial help.

Adapting to the Larger University Environment

Another challenging job is maintaining the innovative features of an honors program within the traditional format of a larger university. Honors students are influenced by both the honors program environment and the larger institutional environment (Campbell & Fuqua).

Elitism

Another challenge facing honors programs is the accusation of elitism (Spurrier). Some groups—including faculty, students, and even management—complain about the use of university resources to serve a small group of gifted and privileged students and faculty while ignoring the vast majority of students and faculy, depriving them of equal privileges.

Retention

Another challenge is retention (Mckay). Recruiting students is a challenge in the first place, and keeping them in the program until they graduate is an even greater hurdle. Students may leave the program for a variety of reasons, the most important being that an honors education demands extra efforts from students to maintain a high level of academic standards, that participation in extracurricular activities is time-consuming, and that participating in international exchange programs is expensive, inconvenient, and intimidating.

Promotion

Promoting an honors program among local, national, and international communities is a challenging task. Convincing parents and employers of the benefits of honors requires management time, resources, and careful strategies.

THE BENEFITS

Innovative Curricula

An honors program may help faculty develop new curricula as well as learning and teaching activities, so it can serve as an incubator for innovations that benefit the larger university population (Schmidt).

Creation and Promotion of a Faculty Research Culture

Honors projects can include traditional research, creative work, or a combination of both. By incorporating research into their undergraduate teaching, faculty members receive intellectual stimulation from the fresh ideas of undergraduates and can use honors projects to launch further research of their own. Faculty at universities with established honors programs can involve undergraduate students in research without having to seek approval from their academic departments (Black et al.).

Creation and Promotion of a Student Research Culture

Honors work raises undergraduate expectations and strengthens the curriculum, especially in the area of academic research. Honors programs introduce undergraduates to the research process, a skill that is needed before advancing to graduate studies (Black et. al.).

Improvement of the Academic Environment

An honors program can lead to improvement of the academic environment for talented students and motivated faculty in several ways: (1) collaborative learning, (2) student-faculty contact, (3) level of academic challenge, (4) enriching educational experiences, and, (5) supportive campus environment (Brint, Cantwell & Hannerman). Academic and extracurricular activities organized by honors students on campus, for example, set an example of hard work, discipline, and leadership for the general university population.

Enhancement of Institutional Reputation and Prestige

Honors programs enhance a university's reputation by setting high admission and graduation standards (Otero). An honors program attracts

outstanding students and committed faculty, thus increasing a university's visibility and its opportunities to attract external funding (Pinto).

Enhancement of Employment Opportunities

Students who graduate from honors programs often get better and higher-paying jobs than regular students do.

CONCLUSION

Any education model is influenced by forces both internal and external to the institution. External forces (macro variables) are relatively uncontrollable for any institution, whether education or business, and include economic conditions, political situations, socio-cultural variables, demographic changes, technological developments, and legal issues. Internal factors include institutional history, student diversity, faculty diversity, physical facilities, leadership style, organizational culture, operational issues, and geographical location. In designing our honors program, we have taken both external and internal factors into considerations. Internally, we have strong leadership; the environment is conducive to learning; the facilities are modern; Internet connections are available; and the students are diverse. Though some political, financial, and security problems face the nation, Mexico is one of the growing economies in Latin America and in the world. Moreover, our university is located in the heart of the industrialized city of Monterrey, which is internationally known.

We have found wisdom in the assertion that honors programs offer unique opportunities and special strengths as well as particular problems and challenges (Schuman), and we also know that one of the strengths of honors program is that they are diverse in terms of models (Long). Since there is no one standard model, universities have options to design their own honors programs in accord with their unique needs. Like most honors administrators, we have found that honors courses stimulate creativity, critical thinking, and analytical skills (Guzy), and we have also learned that challenges range from student selection, curriculum design, faculty development, resource availability, and facility allocation to general program administration. With help from the NCHC <http://www.nchchonors.org/>, we have found that the benefits far outweigh the challenges.

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The authors may be contacted at

mkhan@itesm.mx.

APPENDIX A

CURRICULUM

Basic Education (Foundation Courses)

Engineering
- MA1016 Mathematics-I
- MA1018 Mathematics-II
- MA2010 Differential Equations
- F1002 Physics-I
- F1003 Physics-II
- MA1006 Probability and Statistics
- Q1001 Chemical
- IQ1001 Mass Material
- IQ2000 Mass Energy
- F1005 Electricity and Magnetism
- Q1004 Laboratory of Chemical
- M2025 Quantitative Methods in Engineering
- AR3017 Integrative Project-I
- AR3020 Integrative Project-II
- AD1005 Management and Innovation in Business Models
- CF1010 Accounting and Cost Management
- MT1003 Marketing and Creativity
- FZ1006 Personal and Company Finances
- EC1010 Economy for Business Creation

Humanities and Social Sciences
- MA1016 Mathematics I
- MA1018 Mathematics II
- F1002 Physics 1
- DL1009 Creativity and Innovation
- AD1005 Management and Innovation in Business Model
- AV2009 Management and Evaluation of Media Projects
- CF1010 Accounting and Cost Management
- MT1003 Marketing and Creativity
- EC1008 Business Economics
- EC1009 Macroeconomic Environment
- NI2016 Legal Fundamentals of International Business
- RI1004 International Perspective
- CO2003 Quantitative Methods for Social Research
- NI3036 International Business Agreements

Business
- MA1016 Mathematics I
- MA1018 Mathematics II
- AD1005 Management and Innovation of Business Models
- NI1001 Enterprise, Culture and Business in the World
- MT1003 Marketing and Creativity
- EC1008 Business Economics
- EC1009 Macroeconomics Environment
- D1021 Legal Aspects of Business
- CF1011 Management Accounting
- D1022 Company Law and Intellectual Property
- FZ1006 Personal and Company Finances
- DL1009 Creativity and Innovation
- NI3036 International Business Agreements

General Education

- AR1007 History of Architecture and City
- H1016 Foreign Language
- H1040 Analysis and Verbal Expression
- HS2000 Humanity and Beautiful Arts
- H1018 Ethics, Person and Society
- H2001 Verbal Expression and Professional Environment
- EM1005 Entrepreneurship
- HS2005 Citizenship
- HS2006 Applied Ethics
- H2003 Contemporary Art and Society
- P3011 Civil Society and Citizen Participation

APPENDIX B

STUDENT PREFERENCES FOR FOREIGN COUNTRIES

School of Architecture, Art and Industrial Design **16**
Australia 2
Spain 2
USA 3
Italy 8
Sweden 1

School of Biotechnology and Health **7**
Denmark 1
New Zealand 1
 Sweden 3
Switzerland 2

School of Engineering and Information Technology **72**
Germany 26
Australia 5
Canada 2
China 1
South Korea 1
USA 16
France 12
UK 3
Italy 5
Sweden 1

School of Business, Social Sciences and Humanities **67**
Germany 9
Australia 7
Brazil 2
Canada 5
China 5
Spain 1
USA 12
France 20
England 1
Northern Ireland 1
Italy 1
Singapore 1
Switzerland 2

Grand Total **162**