



The institution completes the Quality Initiative proposal by responding to the questions in each category of the template. The institution may choose to include a brief implementation plan that addresses many of the questions below and replaces portions of the outline. Proposals should be no more than 4,500 words.

Overview of the Quality Initiative

1. *Provide a title and brief description of the Quality Initiative. Explain whether the initiative will begin and be completed during the Quality Initiative period or if it is part of work already in progress or will achieve a key milestone in the work of a longer initiative.*

First Year Education Positioned as the Critical Bridge to a Career Path

The objective of this IIT Quality Initiative proposal is to enhance the first year student experience, both in the classroom and in the student advising process, to help students build paths to a career. In the classroom, new technologies will be used to support collaborative, multi-disciplinary problem-based learning, while in the advising process, technology will enhance transparency for the student and increase efficiency for the advisors.

This will require a shift in the first year curriculum, specifically:

- a) extending IIT's signature Interprofessional Projects Program (IPRO) to first year students. IPRO is a well-established collaborative, team-based learning environment in which students from various concentrations and disciplines work together to solve real-world problems. This program already makes significant use of technology to enhance student learning.
- b) instituting a pilot program of "course flipping," making use of classroom technologies and widely available academic Internet resources. The IIT course would then be a class meeting of 15–20 students to discuss the material and apply it in project formats. The balance of the freshman year would involve project learning with a broad coverage of material focused on potential career paths. Within these available options, the emphasis would be expanding communication skills and critical thinking.

This proposal also recognizes that it is an unrealistic assumption that all high school graduates must be expected to select their majors at initial enrollment or to understand the requirements for graduating within a certain period of time. To remedy this, students would take part in an initial interview and advisor process in which interdisciplinary student teams would be formed to reflect personal individual interests in an appropriate mix related to proposed issues. The initial advisory process would also

require students to create a plan in a student degree-audit system like “DegreeWorks,” and to declare a major prior to starting their second year of study.

Sufficiency of the Initiative’s Scope and Significance

2. Explain why the proposed initiative is relevant and significant for the institution.

The single most important driver of change that must be leveraged for IIT to excel in the 21st Century is the recognition of the new demographic of the student body graduating from K-12. Their entire lives have involved constant exposure to the Internet and they have widely adopted the use of mobile devices and social media to stay connected with their friends and peers. Their school experience is increasingly based on project- and inquiry-based learning and they expect or even demand the integration of technology in course content. These students find traditional materials and lecture-based classes boring and uninspiring. Moreover, pedagogical research has proved that these conventional courses are ineffective with students achieving only a very low retention of information. IIT must provide a continuity of the learning environment today’s students are accustomed to in order to attract top students and engage them in advancing their education to the next level.

To accomplish this, we propose...

- a) Extending IPRO to first year. This will provide a collaborative cross-disciplinary framework for students to learn the skills necessary for inquiry, investigation, discovery, and life-long learning, as well as build a foundation for students to analyze problems and identify, develop, and communicate solutions. It will also lead to the development of formal and informal student learning communities during the students’ first year. Such communities are important because they often continue to thrive beyond the first year. Students who work together in the first-year IPRO will continue to interact after they move into their disciplines and after graduation these communities provide the networks that students need to build their careers and progress in life. This new first-year IPRO must also incorporate the more generalized content of the existing ITP (Introduction to the Profession) courses as an overview of all the professions and of professionalism more generally. Subject major-specific ITPs will be pushed back to the second or third semester, after all student have selected a major, and will focus on the unique aspects of each discipline without the need to cover topics common across all professions.
- b) Instituting a pilot program for “course flipping,” making use of classroom technologies and widely available academic Internet resources for those courses that lend themselves to this method. The “flipped” IIT course would be a class meeting of 15–20 students to discuss the material and perhaps apply it in project formats. Course flipping would apply to various elements within the first-year IPRO as well as other courses where there is sufficient, high-quality content available and where class time can be effectively used in discussion and/or problem solving.

- c) Postponing the requirement for students to select a major until the middle or end of their second semester of study. This allows students to be exposed to a comprehensive overview of the professions during first year regardless of the area in which they choose to study. Students would still be allowed to declare a major at enrollment, but would follow the same initial non-degree-specific curriculum.

- d) Requiring students to create a plan in a student degree-audit system such as “DegreeWorks,” prior to starting their second year of study. This will ensure that the students’ plans lead to a degree within a specified time frame. Faculty advisors will assist students with creating their plans, and central support by Academic Undergraduate Affairs will ensure that the audit system results are accurate and up to date.

The study plans will provide the following benefits to students and their faculty advisors:

- They will allow both students and advisors to track prerequisites needed and completed for classes in the students’ degree programs.
 - They will ensure that each student’s plan of study leads to a degree within a specified time frame at IIT.
 - They will show students, in real time, the consequences of changing their study plans on their expected time of graduation.
 - They will increase the efficiency of the advising process, giving advisors more time to advise students on career choices.
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- e) The students’ study plan data will reside in the central University database (Operational Data Store). This data will be used to:
 - Project demand for courses that are offered in the future terms
 - Tailor class sizes based on pedagogy and not unforeseen demand
 - Assist course schedulers in all academic units
 - Make sure that the right mix of courses are offered in the right place at the right time

3. Explain the intended impact of the initiative on the institution and its academic quality.

To increase the stature of IIT’s undergraduate programs, the academic core of the institution must instill a sense of community that positions the student as the highest priority and recognizes faculty who demonstrate a commitment to these goals of the university.

Clarity of the Initiative's Purpose

4. Describe the purposes and goals for the initiative.

The goals are:

- By concentrating the educational experiences of the first year on making a more mature decision in selecting a major, the remaining semesters required for graduation can be much more constructive and rewarding.
- The initial interview process and identifying an “academic coach” for advising and proactively tracking their academic progress should not only increase student satisfaction but also improve student retention and the four- or five-year graduation rate (depending on the program).
- The dynamics of the first year experience should also increase the expectations for the remaining educational program to continually build individual confidence and school spirit that IIT is the place to be.

5. Describe how the institution will evaluate progress, make adjustments, and determine what has been accomplished.

We will evaluate the initiatives by measuring:

- Degree of implementation of the program, first to second year retention rates, and overall four- and five-year graduation rates
- Student achievement, such as team/peer evaluations, assessment of learning experiences within each project, “real time” evaluation of group discussions of online materials, and individual student evaluations.
- Student and faculty feedback.

Evidence of Commitment to and Capacity for Accomplishing the Initiative

6. Describe the level of support for the initiative by internal or external stakeholders.

The Provost and the Dean’s Council have stated support and commitment to this proposal.

7. Identify the groups and individuals that will lead or be directly involved in implementing the initiative.

Inter-professional Project Staff, the Quality Improvement Initiative subcommittee of the NCA Accreditation Committee, and the Undergraduate Studies Committee.

8. List the human, financial, technological and other resources that the institution has committed to this initiative.

Existing resources for Inter-professional Project courses and the existing DegreeWorks implementation should be sufficient to fulfil the requirements of this proposal.

9. Appropriateness of the Timeline for the Initiative (The institution may include a brief implementation or action plan.)

Describe the primary activities of the initiative and timeline for implementing them.

The quality improvement initiative will be phased in over 3-5 years. The first phase will commence in Fall semester 2014 and consist of two parts: a prototype project and a full project.

- The full project will require all first year students to create a plan in the student degree-audit system, “DegreeWorks.” DegreeWorks will ensure that the student plan leads to a degree within a specified time frame at IIT. Faculty advisors can assist students with creating a plan, and central support by Undergraduate Academic Affairs will ensure that DegreeWorks results are accurate and up to date, and student plan data will reside in the central University database (Operational Data Store).
- The prototype project will affect one or more student cohorts and will consist of:
 - Postponing the requirement for students to select a major until sometime during the second semester. This allows students to be exposed to a comprehensive overview of the professions during first year regardless of the area in which they choose to study.
 - Creating a new IPRO (Inter-professional Projects) course in the first year and incorporating the more generalized content of the existing ITP (Introduction to the Profession) course and an overview of all the professions. Subject major-specific ITPs will be pushed back to the second or third semester after the student has selected a major and will focus on the unique aspects of each discipline without the need to cover topics common across all professions. Guest speakers from industry, government, and academia, with an emphasis on IIT alumni, could be invited to speak with the IPRO cohorts about their fields, current trends, etc.
 - Begin a pilot program of “course flipping” in selected classes, making use of classroom technologies and widely available academic Internet resources should be implemented in those courses that lend themselves to discussion. The IIT course would then be a class meeting of 15–20 students to discuss the material and perhaps apply it in project formats.
- The balance of the freshman year would involve project-based learning wherever possible, with a broad coverage of material focused on potential careers in business, industry, government, and academia.

The second phase, projected to start in Fall 2015 will consist of:

- Expanding the prototype project to include all first-year students
- Sequencing more advanced IPROs concentrating on innovation and research throughout the curriculum.
- Establishing a teaching excellence center to promote the use of technology in the classroom, to answer questions, share ideas, troubleshoot problems, provide templates and tools, and in general ease the adoption of classroom technologies.

- To reinforce the vitality of the project-learning format, it may be appropriate to have academic content modules that would be a half semester. For example, this would permit one project team to use a math module during the first half of the semester and an engineering module for the last half of the semester, based on the project they have chosen.