COLLEGE OF SCIENCE

Strategic Plan Summary
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Strengthening Science; Rigor and Relevance

Preamble
The core disciplines are the foundation of all that takes place in any university. In an institute of technology, the sciences, and mathematical and computational sciences play an especially important role underpinning, as they do, the scientific method and providing the knowledge that is the raw fuel for new technology and innovation. For IIT, strengthening science therefore is an essential part of building the strength of the institution as a whole.

IIT has many of the characteristics of a small private university yet with a very significant level of research and scholarly activity. Coupled with the IIT mission of relevance and innovation, this creates a complicated space in which the institution has to balance the needs and demands of pure scholarship, excellence in education, professionalism, and strong connections to the world outside academia.

The tensions created by this multi-dimensional mission are quite apparent in the College of Science and we must therefore be judicious in the choices we make and not try to be all things to all people or to overemphasize some areas over others so as to become unbalanced.

CoS Vision
IIT’s College of Science will be a model of the intersection between scholarship, discovery, invention and application, and education.

CoS Mission
To create and share mathematical, computational, and scientific knowledge, and to join with colleagues and partners in advancing new and innovative education, scholarship, research, and application.

Priorities and Goals
The IIT Strategic Plan is organized into five Strategic Priorities whereas the CoS Plan has six Goals namely: Students and Education, Research and Scholarship, Faculty and Staff, Application and Engagement, Visibility, Marketing and Reputation, and Resources. Here, we list the CoS sub-goals under the IIT Strategic Priorities. The appropriate CoS goals are indicated.

Priority 1 — Grow and Develop the Student Body

- Support and maintain rigorous and relevant science programs with multiple pathways to the future. (Goal 1)
- Create a community and supportive environment to assist students in their endeavors. (Goal 1)
- Increase overall enrollments taking advantage of key growth opportunities. (Goal 1)
- Promote the “Distinctive IIT Student.” (Goal 1)
- Provide relevant master’s programs driven by marketplace and societal needs. (Goal 1)
- Expose our students to scientific excellence and thought leadership, and be science thought leaders in our communities and internationally. (Goal 4)
- Enhance student engagement with prospective employers, alumni, and friends. (Goal 4)
Priority 2 — Promote Innovative Thinking and Excellence Throughout the University

- Emphasize teaching and learning excellence and innovation with meaningful assessment of outcomes. (Goal 1)
- As much as possible, provide our students with real-world experiences. (Goal 1)
- Create an appropriate balance of Category I/Category II and other faculty. (Goal 3)
- Align recognition and reward structure with clearly defined expectations. (Goal 3)
- Identify appropriate activities for the professional development of staff. (Goal 3)
- Develop processes for recognition of outstanding performance by faculty and staff. (Goal 3)
- Increase intra-departmental and intra-college engagement. (Goal 4)

Priority 3 — Elevate IIT’s Visibility and Ranking

- Build the quality and reputation of the Ph.D. programs. (Goal 1)
- Increase the number of faculty receiving external support for their work. Raise the percentage of supported Category I to 80% and the total annual research expenditures to $15M over the coming five years. (Goal 2)
- We will build on areas of strategic opportunity through creation of new and strengthening of selected Research Centers in: (Goal 2)
  - Computational and Data Science
  - CSSRI - Materials Studies for Energy Applications, and Structural Biology
  - STEM education – Teaching and Learning Excellence
- Determine faculty hiring primarily by the needs of increased enrollment and in areas of strategic need. Grow faculty numbers by 10% over the next five years. (Goal 3)
- Promote leadership in and application of new science knowledge to better society. (Goal 4)
- Build Chicago, national, and international collaborations and strategic engagements. (Goal 4)
- Clearly communicate the distinction, differentiation, and relevance of our programs. (Goal 5)
- Following the launch of the new College in Fall 2013, continue to develop and promote a new brand to underscore science as the fuel of innovation, and the IIT difference. (Goal 5)
- Support IIT initiatives designed to enhance the university’s reputation and ranking. (Goal 5)
- Increase the college’s share of voice in media on topics of experience and expertise. (Goal 5)

Priority 4 — Enhance IIT’s Facilities, Infrastructure, and Environments

- Ensure that our faculty and students have the facilities and equipment they need to do innovative research. Complete Life Sciences renovations. (Goal 2)
- Create a new Research Resource Center and Computational Research Facility. (Goal 2)
- Develop a ten-year space and facilities plan. (Goal 2)

Priority 5 Develop Resources to Enable Progress

- Use data to support our excellence, e.g., our strong graduation and employment rates. (Goal 5)
- Manage revenues and expenses and use our resources to advance the college mission. (Goal 6)
- As the budget of the college moves into balance, allocate new income to support the areas of increased credit hour production and numbers of students, as well as to support the college’s strategic priorities. (Goal 6)
- Energetically work for the capital campaign and for increased fundraising for the college. (Goal 6)
Metrics

1. Students and Education
   a. Increase the number of undergraduate majors by 50/year to a new total of 700.
   b. Grow new professional master’s program enrollments to capacity.
   c. Right-size Ph.D. programs commensurate with funded RA and TA needs.
   d. Improve retention, graduation, and placement rates.
   e. Improve outcome assessment measures.
   f. Improve student satisfaction measures.

2. Research and Scholarship
   a. Increase the percentage of Category I faculty with external research to 80%.
   b. Grow the overall level of annual research expenditures to $15M over five years.
   c. Improve reputation and rankings of departments and programs – CS and Physics to top 100.
   d. Raise visibility of faculty at national and international venues.

3. Faculty and Staff
   a. Increase individual scholarly output.
   b. Raise external support for scholarship.
   c. Grow number of internal and external awards, prizes and fellowships.
   d. Enhance and reward evidence of commitment to IIT’s students.

4. Application and Engagement
   a. Grow number and extent of external collaborations and partnerships.
   b. Grow participation in activities outside the purview of CoS, particularly in connection with the needs of our city, state, and nation.

5. Visibility, Marketing, Reputation
   b. Improve recognition of CoS graduates by IIT and externally.

6. Resources
   b. Increase philanthropic support – add endowed chairs in AM, CHM and CS. Fully fund Life Sciences and other renovation projects.