Proposed New Programs Initiative for review, revision and costing

To: Strategic Planning Task Forces Subcommittee: Admissions (A), New Programs (NP);
Copy: Chairs: Faculty Governance Committees
From: Planning and Implementation Committee (PIC), Prof. Sharon Johnson, Coordinating Member
Date: April 3, 1998
RE: Proposed New Programs Initiative for Review, Revision, and Costing

A theme that emerged from recommendations of the Strategic Planning Task Forces is that of recognition and support of new programs that have the potential to increase WPI's diversity and/or to better educate men and women for the challenges of a technological, global society. The success of the Interface Discipline Program, which began in 1993, suggests that significant seed money provided to support new programs can have substantial benefits. The approximately $300,000 invested in the Interface Discipline Program has resulted in an estimated return of $3,000,000 to WPI.

Below we describe our current view of the nature and extent of an initiative that we believe follows from the Task Force recommendations. Following the draft initiative we list the Strategic Planning Steering Committee goals, endorsed by the WPI Faculty, that this initiative supports, along with the Task Force recommendations (with the originating task force acronym in parentheses) from which this initiative evolved. Also included is some discussion from the Task Force and other reports that, while not presented as recommendations, provides some additional context about this issue. Finally, we outline a specific request to your group to assist us in defining further this initiative and the resources that would be required to address it.

PIC requests that your subcommittee act as the sounding board for campus reaction to the ideas in this initiative and that you assist PIC in modifying and finalizing an appropriate initiative for campus approval and faculty ratification.

Draft PIC Initiative
The SPSC emphasized the need to recognize and adapt to continuing external changes, recognizing that innovation in undergraduate and graduate programs was necessary to achieve this. While other PIC initiatives have proposed mechanisms to support innovation, the focus on these initiatives has not been on the development of new programs. As noted in the introduction, investments in new programs have resulted in significant financial rewards. PIC thus recommends that:
• An endowment be established to provide significant start-up funds for proposed new programs on an annual basis. The average grant provided in the Interface Discipline Initiative was approximately $28,000 (the range was approximately $6,300 to $53,000); the task force believes that the size of these awards was instrumental in the resulting success in establishing the new programs.

• A funding review board be established to solicit proposals, to evaluate them relative to their consistency with published criteria, and to monitor the success of new programs funded through the endowment (through progress and final reports from grantees). Initially, the review board would need to develop an appropriate criteria for new programs suitable for funding consideration as well as to define the criteria that would be used to evaluate proposals; periodic review of these criteria would also be necessary. Any proposed new program would of course need to undergo the usual faculty governance approval process.

The New Programs task force suggested a potential list of criteria, as shown in Table 1.

<table>
<thead>
<tr>
<th>Table 1: Criteria for New Programs</th>
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<tr>
<td>Attractive to students</td>
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<tr>
<td>Exciting career options</td>
</tr>
<tr>
<td>Consistent with WPI's mission and vision</td>
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<tr>
<td>Use existing WPI strengths</td>
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<tr>
<td>Unique to WPI</td>
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<tr>
<td>Addresses society's emerging problems</td>
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<td>Makes use of emerging technology</td>
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<tr>
<td>Opportunities</td>
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<td>Financial resources needed</td>
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<td>Other resources needed</td>
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<td>Funding possibilities</td>
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<td>Barriers to implementation</td>
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<td>Other</td>
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From the report of the New Programs Task Force

**SPSC and Task Force Recommendations**

The preceding PIC Initiative encompasses several of the goals articulated by the SPSC and endorsed by the WPI faculty, including:

Recognize and Adapt to Continuing Change
Continue to Innovate in Our Undergraduate Program
Improve Community Relationships and Diversity

Furthermore, two guiding principles defined by the SPSC are relevant to this proposed initiative:

"The creation, integration, and transmission of technical and scientific knowledge will remain central to our mission, which also requires us to pursue their social, cultural, ethical, managerial, and economic ramifications beyond the boundaries of engineering, science, and technology"
"The learning environment will be continually examined to ensure a climate that values diversity, emphasizes community, and encourages a difference of ideas and values."

What follows is a list of the action items drawn from Task Force Reports that fall under this category that we call New Programs. The originating task force initials are given in parentheses following each action item.

1. The Task Force believes that it would be appropriate for the Steering Committee to request proponents of initiatives to prepare detailed proposals in accordance with a model such as the Evaluation Criteria (Shown in Table 1): (NP)

2. the Task Force recommends the following steps be taken, as a permanent process:
   - that within the budget process, financial resources be committed for "new programs" in general;
   - that there be an ongoing institutional process of promoting new programs;
   - that an institutional process be developed for evaluating proposals in a manner similar to the aforementioned criteria.
   - that there be a periodic review of all academic programs with respect to their ongoing contributions to the mission of the Institute.

The following discussion taken from Task Force reports, while not presented as recommendations or action items, provides some additional context about the need for the New Programs Initiative.

   - It will be important for WPI to capture a share of potential growth markets if it is to improve its competitive position. Students of color will become a majority of the high school age population in the near future. Additionally, there is educational and social value in diversifying the campus. The necessity for all students to have computer skills will likely give rise to an increasing number of females willing to consider a technical field. Aside from the obvious social and cultural value of such a goal, WPI's current gender imbalance precludes its effective recruitment of a large portion of the high school age population. Special efforts must be made to address this issue. (A)

   - WPI's commitment to globalization and the needs of industry support developing a learning environment which emphasizes understanding of cultures other than our own. (A)

   - We have identified new programs in the areas of Life Sciences, Humanities and Arts, Management, Social Science, Non-traditional Learners, and Learning Environments. What all of these programs share is a vision consistent with the mission of WPI --- to educate men and women for the challenges of a technological, global society. After much discussion, we concluded that the proposals we received could best be prioritized from an institutional perspective by the Strategic Plan Steering Committee in the light of WPI's broader institutional goals and the recommendations of all the respective Task Forces.
Worcester Polytechnic Institute

We recommend that the new program initiatives described in our report be considered for further deliberation and ranked with other proposals from such an institutional perspective. (NP)

- "(N)ew programs" can take the form of new products to old customers, new technologies to old customers, new technologies for old or new products, and so on. (NP)

Specific Requests
PIC requests assistance from the previous Task Force members based subcommittee with respect to the following:

1. Please review the above draft initiative. Your committee will play an important role in modifying this proposed initiative to address the needs of the WPI campus. This draft is intended to provoke discussion and reflection regarding the future thrusts for WPI and means to implement these goals with the help and within the context of the WPI capital campaign.

2. Please canvas the campus for comment and represent the collective wisdom of all interested parties in constructing your criticism and amendments.

3. Please produce a list of suggestions, by April 27, to be addressed by PIC. This need not be a formal report, but should include background information for each suggested change and an assessment of the campus wide reaction to the initiative that led to the suggested changes. This feedback can take the form of a simple email to the member of PIC coordinating this initiative, or, a new draft of the initiative.

4. Please be prepared to interact with PIC in the preparation of a second version of the initiative in response to feedback received. Also, please be prepared to participate in an open meeting with PIC and the campus community to discuss this second revision.

5. Please assist PIC is the evaluation of the costs of undertaking this initiative. As was explained at the December faculty meeting, the campus will participate in an exercise aimed at capturing the sense of priorities assigned to the various initiatives to be proposed. To conduct this exercise, we need to assign a set of costs to each initiative associated with each kind of resource required by each initiative. Please consider the following questions:
   a. What do you estimate will be the start-up costs of this initiative?
   b. What do you estimate to be the steady state operational costs of this initiative?
   c. What revenue streams, other than the operating budget, can you envision supporting this initiative?
   d. In addition to those ways that might have been suggested above, in what other ways do you imagine this initiative could benefit from the capital campaign?
   e. What space requirements do you think this initiative will need?

Then, please divide the costs into the following categories:

f. One time (start-up phase) cash expenses.

   g. Endowed chairs, fellowships and/or scholarships or other self-replenishing funds.
h. Facilities (construction or equipment costs) that might be addressed through a gift-in-kind or gift that targets this project-specific one-time expense.

i. Continuing costs that impact the operating budget.

j. Potential offsets of continuing costs, due to new revenue streams.

Consider the fact that those initiatives that are selected for implementation after campus priorities have been illuminated will have to share the new resources being developed by the capital campaign. These currently untargeted new resources are, conservatively, estimated at approximately $16 million in unrestricted (effectively cash) and $30 million in restricted funds (scholarships, fellowships, chairs and other gifts dedicated to a particular purpose according to the interests of the donator.)