Guiding Philosophy

One of the most important tasks facing higher education today is to respond to the reality that college teachers, in contrast to their colleagues in K-12, receive little or no training to prepare them for a teaching career. As knowledge about the science of learning and the college experience increases, there is a commensurate need and opportunity to distill that knowledge and apply it to teaching practice. Recognizing that the quality of a student’s experience rests heavily upon the teaching knowledge, ability, and commitment of faculty members, the Center for Educational Development and Assessment (CEDA) was established to promote reflective thought and dialogue on the art, science, and craft of college teaching and to improve teaching practice. Its mission has been grounded by two basic beliefs:

- Good teaching is founded in core beliefs and attitudes, which are largely innate to the individual, and in good practice, which can be learned and improved upon.
- Meaningful assessment is crucial to the ongoing improvement of teaching and learning processes.

Substantial support for enhancement in teaching and learning at WPI is also provided by the Academic Technology Center and its Teaching with Technology Collaboratory.

Concrete Actions

CEDA carries out its mission by providing support for the enhancement and assessment of teaching and learning at WPI. The human and financial resources available to CEDA in 2006-07 were one half-time director and a $29,520 operating budget. Within this budget approximately $17,500 was available for programs and services (i.e., non-salary), not including TA development for which separate funds were available. CEDA activities in AY2006-07, categorized into the two areas of its mission, included:

1. **Promoting educational development at WPI.** This category of activities promotes teaching improvement through orientation, mentoring and training activities; events that address student learning, teaching skills, and curriculum development; providing information and expertise to instructors; and individual consultations:
   - greeted new faculty with a welcoming letter and complimentary book on teaching;
   - offered a full-day orientation on teaching for new WPI faculty;
   - organized and ran a mentoring program for new faculty, involving ten mentor-mentee pairs;
   - coordinated new TA Training in August and January;
• recruited Glynis Hamel as a “TA Training Associate,” to assist in planning and to implement TA Training each January;
• provided individual teaching consultations to three faculty members who requested it;
• organized a series of “Food for Thought” lunch seminars on a variety of educational topics (preventing plagiarism, the first year program, ethics in the curriculum, podcasting lectures, cognitive theory on visualization, writing assignments², blended learning, effective use of myWPI, REU programs, student self-assessment, interdisciplinary curricula, trends in engineering education and in engineering practice, the SAT admissions requirement);
• co-presented two of the Food for Thought seminars;
• submitted a proposal for reinstatement of the Educational Development Council (EDC) Small Grants Program in FY08 (see Appendix B)
• collaborated with the Academic Technology Center to recast the Teaching Technology Fellowships as joint ATC-CEDA Course Redesign Grants;
• served as ex officio member of Educational Development Council: administered the Moruzzi Award for innovative young faculty and organized evaluation of Course Redesign Grant applications;
• conducted a teaching/faculty development needs assessment with department heads and groups of faculty;
• participated in discussions about WPI’s next proposal to the Davis Educational Foundation;
• attended an AAC&U conference Shared Futures: General Education for Global Learning as part of a team of WPI faculty involved in the first year experience;
• served as the WPI liaison to the Colleges of Worcester Consortium’s Certificate in College Teaching program and promoted use of the Class of ’57 Excellence in Teaching Symposium Fund to support WPI graduate student participation in the program; made arrangements for a tuition payment option whereby WPI would front the tuition rather than the student;
• spoke at the Class of 1957 50th reunion about excellence in teaching initiatives;
• attended the annual conference of the POD (Professional and Organizational Development) Network, resulting in new ideas put into place in the mentoring program and in teaching consultations, among others;
• attended and presented a workshop at the fall conference of the NEFDC (New England Faculty Development Consortium);
• disseminated information to WPI faculty on such topics as research on retention, learning students’ names, and getting mid-term feedback from students;
• maintained and disseminated a collection of instructional and faculty development materials on teaching improvement topics.

¹ This seminar resulted in a cross-departmental proposal idea and NSF CCLI submission on helping students develop graphical representation skills.
2. Promote the ongoing assessment and improvement of teaching and learning at WPI. This category of activities consists of providing assessment support for projects of individuals and groups of faculty and staff, and for the preparation of proposals for sponsored research. Once the proposal has been funded or the project framed, much of the day to day assessment work is done by an external consultant.

- assisted with preparation or discussion of educational components of six grant proposals (four to NSF, two internal);
- arranged for a workshop on “Developing Successful Evaluation Plans,” led by research managers from the University of Massachusetts Donahue Institute;
- served as ex officio member of the Undergraduate Outcomes Assessment Committee;
- provided feedback on engineering program MQP reviews in preparation for ABET visit in 2008;
- facilitated assessment of learning outcomes in five-week summer terms compared to seven-week summer terms and arranged for presentation of results to the Committee on Academic Policy;
- assisted with planning for assessment of the pilot Great Problem Seminars in Fall 2007;
- attended meetings of the New England Educational Assessment Network and New England Association of Schools and Colleges (NEASC);
- maintained and disseminated a collection of instructional and faculty development materials concerning assessment practices;
- maintained a program of individual educational scholarship.

Usage\(^3\) of CEDA services

- Usage of CEDA services for 2006-07 included 621 total usages by 336 different individuals. The last available data is from 2003-04, when there were 730 total usages by 378 different individuals.
- 127 different WPI faculty used CEDA services in 2006-07. (“Faculty” is broadly defined to include non-tenure track faculty, staff with teaching responsibilities, and faculty at Mass Academy.) As a point of comparison, 154 different faculty members used CEDTA services in 2003-04.
- Other users include staff (63 different users), graduate students (90), undergraduates (24), and non-WPI people (33), many from the Colleges of Worcester Consortium or Worcester Public Schools.

Priorities for 2007-08

- Redesign New Faculty Orientation to include the larger context of faculty roles and responsibilities (i.e., scholarship) and extend orientation activities into the academic year
- Raise visibility of writing across the curriculum development activities
- Increase the opportunities for internal small grants to faculty for teaching improvement activities
- Disseminate more information on multiple forms of feedback and evaluation of teaching (beyond student ratings)

\(^2\) This workshop influenced two proposals submitted to the NSF CCLI program and one to NSF IGERT, all of which are in review; and a planned future proposal to NSF and the Semiconductor Research Corporation.

\(^3\) “Usage” includes attending an event, borrowing an item, requesting and receiving information, having a draft written document reviewed, participating in a consultation, or receiving other forms of assistance.
• Collaborate with Associate Dean for the First Year Experience to determine faculty
development needs specific to growth and enhancement of first year initiatives

Long-term goals

• Identify a mechanism to bring more faculty members into leadership of CEDA programs
  (e.g., CEDA "Associates", steering committee) and a mechanism for administrative support
  within budgetary constraints
• Explore advantages and disadvantages of combining many or all faculty development
  activities into a single unit (e.g., teaching with technology, teaching writing, faculty
  development for the first year)