

Report: WMU-STEP Advisory Board (8/12/2005)

1. Accomplishments in Spring 2005

- a) STEP Faculty Development grants were awarded to Drs. Marc Perkovic and Donald Schreiber to revise CHEM 1100/1110. A pilot project was implemented in 2004-05. The revisions include:
 - Reduce the number of chapters covered CHEM 110 to increase depth of coverage; This was accomplished by moving the topic of thermochemistry from CHEM 1100 to CHEM 1120;
 - Introduce workshops on study skills and mathematics for chemistry during the first three weeks of CHEM 1110. The NSF-STEP grant provided funding for TA's to conduct these sessions.
- b) A STEP Faculty Development grant was awarded to Dr. Radu Teodorescu to collaborate with Drs. Perkovic and Schreiber to develop problems for MATH 1110 with the purpose of increasing student success in CHEM 1100. These problems will be used as homework assignments and/or examples in class in MATH 1110 and for the mathematics session in CHEM 1110. A pilot will be implemented in one section of MATH 1110 in Fall 2005.
- c) A STEP Faculty Development grant was awarded to Mr. Thomas Swartz to revise IME 1020, Technical Writing, to use career development as one theme for writing assignments.
- d) A STEP Faculty Development grant was awarded to Dr. Melinda Koeling to participate in Project NEXT, a series of workshop for first-year mathematics instructor.
- e) Retention Information of Pilot Group (prepared by SAMPI)
 - 21 students signed on for the STEP student learning community
 - 19 (90%) returned to the university in Spring 05
 - 1 dropped early in first semester, possibly due to illness or other emergency
 - 1 whose career goals were quite uncertain in September left with a first semester GPA of 2.45
 - 14 (67%) have registered for Fall 05
 - 12 returnees (57%) seem to remained in the college of origin
 - 2 other returnees appear to be enrolled for business courses
 - 1 who remains in CAS has moved into Criminal Justice
- f) GPA Information of Pilot Group (prepared by SAMPI)
 - First-semester GPAs for the original 21 students ranged from 0.00 to 4.00 with 2 students at each extreme
 - Average GPA for Fall 04 was 2.30
 - Average for CAS students was 2.40
 - Average for CEAS students was 2.13
 - 8 students had GPAs lower than 2.0
 - Second-semester GPAs for 19 students ranged from 0.00 to 3.81
 - Average GPA for Spring 05 was 2.46
 - Average for CAS students was 2.30
 - Average for CEAS students was 2.74

2. Activities in Fall 2005

- a) 12 CEAS Learning Communities were created with IME 1020 as the anchor (3 for MATH 1700; 2 for MATH 1180; 2 for MATH 1100; 2 for Civil and Construction Engineering; 1 for Undecided majors; and 2 for mixed MATH 1700/1180)
- b) 1 Art & Sciences Learning Community was created
- c) College Transition Program for Under-represented Minorities in CEAS (33 total -- 15% placed into Calculus II; 9% placed into Calculus I; 9% placed into Pre-Calculus; 46% placed into Algebra II; 15% placed into Algebra I; 3% placed into High School Algebra): 11 students have replied.

3. Looking Ahead

- a) Alignment of STEP Learning Community with First-Year Experience (FYE)

Similarities between STEP Learning Community and First-Year Experience

- Each group consists of ~20 students with faculty mentor
- Students attend four co-curricular activities with faculty mentor and write about the experience of the activity

Differences between STEP Learning Community and First-Year Experience

FYE	STEP
Students grouped across college	Students grouped by STEM majors
1 credit hour FYE Seminar required	FYE Seminar not required
Students take the same 2 general education courses including composition during first semester	Many majors require math, chemistry, composition/technical writing, biology/engineering graphics/introduction to engineering during first semester

- b) Michigan Youth Engineering & Science (YES) Expo – An event for high-school students to be held on October 26 in Ford Field. CEAS participated in Fall 2004. Each participating institution has a 10'x10' table free of charge. WMU Office of University Relations has offered to split the \$2,500 cost with the college for another 10'x10' space at the Expo.
- c) Candidates for External Advisory Board Members –
 - Dr. Daina Briedis, Associate Professor of Chemical Engineering, Michigan State University
 - Dr. Robert Kohrman, Dean of College of Science and Technology, Central Michigan University
 - Dr. Harry Shipman, Professor of Astronomy, University of Delaware
 - Dr. William Oakes, Co-Director of the Engineering Projects in Community Service (EPICS) Program at Purdue University
 - Two to three advisory members from the CEAS-BTR
- d) Internship Opportunities