Department of Biomedical, Industrial, and Human Factors Engineering
Wright State University

Strategic Plan
Draft December 12, 2003

The Department of Biomedical, Industrial and Human Factors Engineering (BIE) is the only academic unit, nationally, that shares Biomedical, Industrial, and Human Factors Engineering Programs as a common mission. These programs are human centered and are dedicated to support the health, performance, and safety of individuals. The vision, strategies, actions, and measures that encompass the Department’s strategic plan are outlined below.

BIE Department’s Vision:
Within the broad theme of “Engineering for People,” the Department of BIE’s vision is to be nationally recognized for excellence in education and cutting-edge research in specific areas within Biomedical, Industrial, and Human Factors Engineering. These areas leverage on the Department faculty’s established reputation and currently include: biomedical imaging, biomechanical ergonomics, human-integrated systems, and modeling and simulation of complex systems.

In support of this vision, the Department adopts the following strategies:
1. Recruit and retain high-quality faculty members on emerging areas of need in Biomedical, Industrial, and Human Factors Engineering.
2. Recruit and retain high-quality students for both the undergraduate and graduate programs from the region and from out of state.
3. Provide a concentrated effort for job/career placement of our graduates
4. Support existing and emerging collaborative opportunities for scholarship.
5. Create educational programs addressing emerging technologies in areas of critical need.
6. Actively promote faculty, students, and alumni success in academics and research in appropriate media.

Actions planned in support of the above strategies include the following:
• Actively recruit high-quality faculty candidates who fit within the overall Department vision, specifically in the sub areas identified within Biomedical, Industrial, & Human Factors Engineering.
• Develop opportunities to expand the number of faculty members in the Department through collaborations with other units on campus as well as through non-state funded sources.
• Actively work with the CECS in promoting externally funded scholarships for high-quality freshman students.
• Provide matching Department scholarship for high-quality students.
• Collaborate with units such as DAGSI in increasing number and amount of funding for high-quality graduate students.
• Collaborate with Miami Valley industry, Wright Patterson Air Force Base, and other organizations to increase Co-Op position opportunities for the students.
• Develop and offer certificate programs as well as minors/degree programs in emerging technologies in Biomedical, Industrial, and Human Factors Engineering.
• Develop and disseminate multi-media content on the Department programs, faculty, students, and alumni successes to enhance recognition and hence facilitate recruitment.
The measures useful to assess the value of the actions taken in support of the strategic plan include:

1. Number of Department faculty
2. Research production in terms of scholarly publications and research funding
3. Number of undergraduate and graduate students in the different programs
4. The grade point average and standardized test scores of entering students
5. Number of students funded during their studies
6. Number of students in Co-Op and internship positions during their academic work
7. Number of students placed in industry and graduate schools within 6 months of graduation
8. Number and level of research funding in collaborative research opportunities
9. Number of new educational programs offered by the Department
10. The number of organizations/individuals to whom the multi-media content on Department information is distributed.

The BIE Department’s strategic plan is intended to support the three broad goals of Wright State University (WSU). It also supports several objectives of the College of Engineering and Computer Science (CECS) as outlined below.

WSU Goal 1: *Enhance our distinctive learning experience to recruit and retain a diversity of students from the region and beyond*

CECS Objectives to support Goal 1:

Increase the Co-Op Program
Make WSU recognized for its commitment to job/career placement of its graduates and alumni
Establish deliberate efforts to build a strong career guidance structure for students through career planning and placement
Increase number of high-quality students recruited from out of state

Department of BIE’s actions to support the above WSU goal and CECS objectives are as follows:

- Actively work with the CECS in promoting externally funded scholarships for high-quality freshman students.
- Provide matching Department scholarship for high-quality students.
- Collaborate with units such as DAGSI in increasing number and amount of funding for high-quality graduate students.
- Collaborate with Miami Valley industry, Wright Patterson Air Force Base, and other organizations to increase Co-Op position opportunities for the students.

WSU Goal 2: *Expand out partnerships through external funding and collaborative scholarship both regionally and beyond*

CECS Objectives to Support Goal 2:

Continue to support existing (e.g., DAGSI) and other emerging efforts that support collaborative scholarship
Continue to expand the university facilities and infrastructure to support external funding and collaborative economic development efforts
Department of BIE’s actions to support the above WSU goal and CECS objectives are as follows:

- Actively recruit high-quality faculty candidates who fit within the overall Department vision, specifically in the sub areas identified within Biomedical, Industrial, & Human Factors Engineering.
- Develop opportunities to expand the number of faculty members in the Department through collaborations with other units on campus as well as through non-state funded sources.

WSU Goal 3: *Extend our engagement with government, business, and non-profits to focus on emerging areas of need*

CECS Objectives to support Goal 3:

Create educational programs addressing emerging technologies in areas of critical need
Actively expand placement of students in business and government organizations
Actively promote faculty, students, and alumni success in academics and research in appropriate media

Department of BIE’s actions to support the above WSU goal and CECS objectives are as follows:

- Collaborate with Miami Valley industry, Wright Patterson Air Force Base, and other organizations to increase Co-Op position opportunities for the students.
- Develop and offer certificate programs as well as minors/degree programs in emerging technologies in Biomedical, Industrial, and Human Factors Engineering.
- Develop and disseminate multi-media content on the Department programs, faculty, students, and alumni successes to enhance recognition and hence facilitate recruitment.