

# SEYMOUR & ESTHER PADNOS COLLEGE OF ENGINEERING & COMPUTING STRATEGIC PLAN

## *Introduction*

The Seymour and Esther Padnos College of Engineering and Computing was created through the reorganization of the Academic Affairs Division of Grand Valley State University in 2004. The academic units within the Padnos College are the School of Engineering and the School of Computing and Information Systems.

The college offers undergraduate programs in Computer Engineering, Electrical Engineering, Interdisciplinary Engineering, Mechanical Engineering, Product Design and Manufacturing Engineering, Computer Science, and Information Systems. Masters degree programs are offered in Medical and Bioinformatics, Computer Information Systems, Electrical and Computer Engineering, Manufacturing Engineering, Manufacturing Operations, and Mechanical Engineering.

The college also provides courses in support of non-engineering and computing students through minor programs as well as general education and service course offerings.

## *Mission Statement*

Our mission is to prepare undergraduate and graduate students in engineering and computing to become accomplished professionals; to individually contribute to our professions through active scholarship in all of its forms; and to support the University and society with expertise, leadership, and service.

To achieve our mission we:

- prepare students to compete in today's global economy by emphasizing experiential learning in a contemporary technical environment
- prepare students for the future by emphasizing sound principles
- emphasize a strong technical background enhanced by effective communication skills
- provide working professionals with the opportunity for continuous professional development
- imbue students with a strong sense of "the public good" and their own professional responsibility to the public good
- strive to be an example and an inspiration to develop competence, courage, and compassion with unquestioned integrity

## *Constituencies*

The Padnos College serves and supports six primary constituencies. The goals, strategic objectives, and strategies presented in this plan are organized around our activities with and for each of these constituent bodies. The constituents of the Padnos College of Engineering & Computing are (no order implied):

- Our Students
- The Grand Valley State University Community
- The Faculty and Staff of the Padnos College of Engineering & Computing
- The Engineering and Computing Professions
- Our Employer Base
- The General Public

## ***Constituent Group: Our Students***

### Goals

- Provide excellent and respected academic programs that:
  - a. are challenging and technically rigorous
  - b. reflect current trends in the field of study
  - c. reflect the global environment
  - d. are firmly grounded in theoretical fundamentals and hands-on application
  - e. provide a broad range of electives
  - f. are ABET accredited
- Provide opportunities for professional development
- Provide an outstanding environment for learning that supports student / faculty / community interaction

### Strategic Objectives

1. Remain student-centered in all aspects of the student's academic experience
2. Articulate and maintain the primacy of consistent excellence in teaching and learning at both undergraduate and graduate levels
3. Establish and/or maintain appropriate enrollment, staffing, and facilities for effective & efficient program operations
4. Offer programs that are responsive to industry/community needs and student demand through comprehensive and diverse offerings
5. Ensure academic excellence in all programs
6. Enhance rigor, respect, and recognition for all programs

## ***Constituent Group: The Grand Valley State University Community***

### Goals

- Provide professional college perspectives in university governance
- Support university-wide and interdisciplinary initiatives and activities
- Support the content needs for students in non-engineering and computing disciplines
- Assist in presenting the university to the public

### Strategic Objectives

Provide active participation and leadership in

1. university governance committees
2. the general education program
3. university scholarship programs
4. interdisciplinary programs

## ***Constituent Group: The Faculty and Staff of the Padnos College of Engineering & Computing***

### Goals

- Ensure a collegial and supportive environment
- Ensure that each faculty/staff member has the opportunity to reach his/her fullest potential in teaching, scholarship, and service
- Support the recruitment of outstanding and diverse students, faculty, and staff
- Ensure supportive and efficient college governance
- Establish and promote the distinctive identities of programs, schools, and the college

### Strategic Objectives

1. Articulate and maintain the primacy of consistent excellence in teaching and learning at both the undergraduate and graduate levels
2. Establish and/or maintain appropriate enrollment, staffing, and facilities for effective & efficient program operations
3. Facilitate and expand consulting and scholarship
4. Facilitate and expand publication and presentation of our work
5. Encourage and support active membership and leadership positions in professional societies, accreditation boards, community boards, etc.
6. Facilitate community service activities

## ***Constituent Group: The Engineering and Computing Professions***

### Goals

- Provide a diverse population of graduates well prepared for the challenges of industry and graduate studies
- Contribute to advancing professional knowledge
- Support our professional societies
- Increase awareness of our professions
- Enhance the expertise of practicing professionals
- Incorporate and contribute to global awareness through professional activities

### Strategic Objectives

1. Facilitate and expand consulting and scholarship
2. Facilitate and expand publication and presentation of our work
3. Encourage and support active membership and leadership positions in professional societies
4. Enhance support for student chapters of professional societies
5. Provide community service that features our professions
6. Create educational opportunities to serve practicing professionals

## ***Constituent Group: Our Employer Base***

### Goals

- Provide a diverse population of graduates well prepared for the challenges of industry and graduate studies
- Provide outstanding experiential educational programs
- Offer educational programs consistent with contemporary practice
- Enhance industry competitiveness and faculty currency
- Provide industry and community service and outreach
- Enhance competitiveness in the global environment

### Strategic Objectives

1. Offer programs that are responsive to industry and community needs
2. Ensure academic excellence in all programs
3. Enhance respect and recognition for all programs
4. Engage industry as partners in our experiential educational programs
5. Facilitate industry / faculty interaction and support
6. Leverage industry partnerships to enhance service and outreach activities

## ***Constituent Group: The General Public***

### Goals

- Enhance the local and larger communities via our professional expertise
- Expand educational opportunities and interest in engineering & computing

### Strategic Objectives

1. Support the economic health of our community by producing graduates who can drive the regional economy.
2. Integrate service learning activities into engineering and computing coursework and faculty activities
3. Provide enhancement and enrichment opportunities for K – 12 students to expand the talent pipeline

March 8, 2006