#### **Engineering and Applied Science Programs for Professionals**



## EPP Online -Lessons Learned

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Engineering and Applied Science Programs for Professionals

#### Introductions

- Brenda Knox
   Coordinator EPP Online
   Senior Information Technology Specialist
- Hedy Alavi
  Program Chair
  Environmental Engineering, Science & Management



Engineering and Applied Science Programs for Professionals

# Commitment to Engineering Professionals



- One of the largest graduate programs in the country for working engineers
  - Over 2,200 students
  - Over 5,500 degrees awarded in last decade
  - More than 460 course offerings
- Life-long learning to meet your continuing needs





Engineering and Applied Science Programs for Professionals

### **Degree Program Areas**

- Applied and Computational Mathematics
- Applied Biomedical Engineering
- Applied Physics
- Bioinformatics\*
- Chemical and Biomolecular Engineering
- Civil Engineering
- Computer Science
- Electrical and Computer Engineering
- Environmental Engineering, Science & Management
- Information Systems and Technology
- Materials Science and Engineering
- Mechanical Engineering
- Systems Engineering
- Technical Innovation and New Ventures\*\*
- Technical Management

\*Jointly offered with the Zanvyl Krieger School of Arts and Sciences Advanced Academic Programs.



<sup>\*\*</sup>Jointly offered with the School of Professional Studies in Business and Education

Engineering and Applied Science Programs for Professionals

### Quality

- High quality faculty
- Current/relevant programs/courses
- State-of-the-art facilities laboratory, computer, library and classroom
- Classes sized for optimum interaction
- Top-notch students





Engineering and Applied Science Programs for Professionals

### Responsiveness to Students

- Seven convenient locations
  - Montgomery County Campus (Rockville)
  - Applied Physics Laboratory (Laurel)
  - Dorsey Center (Elkridge)
  - Homewood Campus (Baltimore)
  - Southern Maryland Higher Education Center (Lexington Park)
  - HEAT Center (Aberdeen)
  - Washington DC (Dupont Circle)
- Online courses
  - Accommodates heavy business travel
  - Accommodates out-of-area assignments and active duty
- Schedules for working adults
  - Once per week
  - Evenings and weekends





Engineering and Applied Science Programs for Professionals

# **Environmental Engineering, Science and Management**

### **Degrees & Certificates:**

- Master of Environmental Engineering
- ❖ Master of Science in Environmental Engineering and Science
- **❖ Master of Science in Environmental Planning and Management**
- Advanced Certificate for Post-Master's Study
- Graduate Certificate





Engineering and Applied Science Programs for Professionals

# **Environmental Engineering, Science & Management**

- Advisory Board
- Program Committee
- Faculty
- Admission Requirements
- Course Requirements & Program Plan
- Course Offerings / Cross-listed Courses
- Online Courses
- Online Degree: Environmental Planning & Management





Engineering and Applied Science Programs for Professionals

## Why Go Online?

- Student convenience
- Extending JHU's geographic reach
- Defense against new competition





Engineering and Applied Science Programs for Professionals

### **Timeline**

Fall 2000 Developed first 6 online courses.

Spring 2001 Offered first online courses.

Spring 2002 Developed course design standards.

Fall 2003 Upgraded first round of courses.

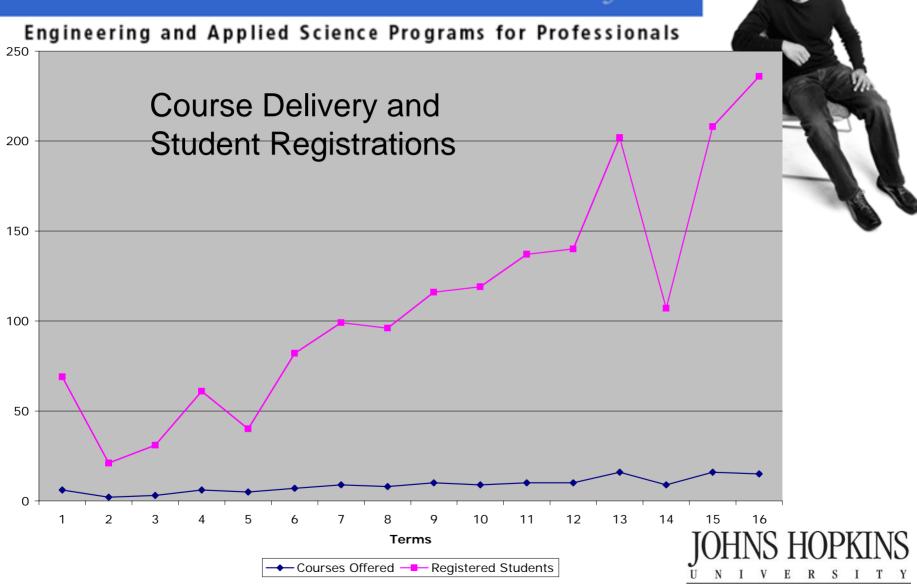
Spring 2005 First double sections of online courses.

Fall 2006 Launching first fully online degree.

Future Moving to an extensible 2 faculty model and in house course development.







**Engineering Programs for Professionals** 

Engineering and Applied Science Programs for Professionals

## Our Approach

- New delivery medium requires new design and delivery skills
  - Active, student-centered learning design
  - Faculty pedagogy training
  - High emphasis on interaction, administrative and academic
  - Primarily asynchronous
  - Initially, not high multi-media content
- Course Design Standards
  - Style
  - Instructional Design



Engineering and Applied Science Programs for Professionals

## Our Approach

 Partnership with private course development vendor

- Strong course evaluation program
  - Midterm
  - Final





Engineering and Applied Science Programs for Professionals

### Issues and Observations

- Internal resources necessitated involvement of a third party vendor
- Perception of Quality
- Student and Faculty Expectations
- Evaluation issues
- Conscious focus on communication, administrative and academic.



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### Questions?

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