Students as Entrepreneurs

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School Profile



- Established 1985
- IT focus in <u>all</u> academic programs
- First Ph.D. in IT in the Country
- 4,100 total students
 - 2,052 undergraduates
 - 2,062 graduates
- \$27.6M annual budget
- 420 employees



Six Academic Departments

- 1. Applied & Engineering Statistics
- 2. Civil and Infrastructure Engineering
- 3. Systems Engineering & Operations Research
- 4. Electrical & Computer Engineering

5a. Computer Science

- 5b. Information & Software Engineering
 - Application areas in CS

Undergraduate Programs



• Six Majors

- BS in Electrical Engineering
- BS in Computer Engineering
- BS in Computer Science
- BS in Systems Engineering
- BS in Civil, Environmental and Infrastructure Engineering
- BS in Information Technology
- Three Minors
 - Information Technology
 - Computer Science
 - Data Analysis

Graduate Programs



- Three Ph.D. Degrees
 - Ph.D. in IT
 - Ph.D. in CS
 - Ph.D. in ECE
- Engineer in Information Technology
- 12 M.S. degrees
 - E-Commerce
 - Enterprise Engineering
 - Information Systems
 - Software Engineering
 - Telecommunications

Students as Entrepreneurs

Encouraging Entrepreneurs



- Start early High School
- Provide an entrepreneurial environment
 - University systems/operation
 - Class registration/organization
 - Entrepreneurial faculty
- Connect closely with industry
 - Working students
 - Blurring the education/workplace environment
- Encourage innovation: Reward creativity
 - Design competitions
 - Entrepreneurship classes



Undergraduate Entrepreneurship Course

Professor Sharon DeMonsabert

Owner: Applied Engineering Management Corporation 25 students (by application)

- Business plan competition
- Joint with School of Management
- \$5,000 first prize
- Industry lecturers, judges



Students in the Workforce

- Starting companies
- Working in startups
- High School academy participation
- Corporations spawn startups
- Corporations purchase startups

The Entrepreneurial University



- Employed students (grad & undergrad)
- Adjunct faculty from industry
- Consultation by faculty
- Large School Advisory Board
- Contract credit & non-credit courses



• Director: Roger Stough, Professor of Public Policy

Small business development assistance (Federal and State Programs)

- Business development centers
- Telework centers (3 in Fairfax)
- Business incubators (2 in Fairfax)



Virginia CIT

- Location: Dulles International Airport
- State Funding Level: \$8M
- Entrepreneurial Program Calendar
 - 1/24/03 Competing in the Federal SBIR/STTR Programs
 - 1/30/03 TechStart BootCamp
 - 2/13/03 One-to-One: IP Law Advice for Tech Start-Ups

What lies ahead?



- Information Security & Assurance
- Innovative Transportation Systems
- Robotics
 - Evolutionary Computation
- IT Bioengineering
 - Bio Genetics
 - Virtual Knee Surgery & Surgery Assistance
 - Human Embryo Visualization
 - Face Recognition/Biometrics
- Data Mining and Visualization
- Wireless Communication & Networking



- IT revitalization led by telecom industry
- Increased VC funding availability
- Continued importance of entrepreneurship
 - Agile, quick adoption of new concepts
 - Young employees/owners
 - Risk takers
- Increased university involvement