

# INNOVATION ENGINEERING™

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Land Grant Youth Entrepreneurship Conference June 4-6, 2008  
State College, PA



# INNOVATION ENGINEERING™

- **An interdisciplinary minor created to give UMaine students knowledge, tools and inspiration to become innovators and entrepreneurs irrespective of their majors**
- **Students expected to learn a set of reliable and reproducible systems for inventing and communicating innovative ideas that pertain to their employment environments - business, public schools, government, hospital, an artist's cooperative and more**
- **The curriculum includes theory and practice from disciplines such as cognitive Science, business, creative writing, journalism, engineering, and art.**

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# Innovation Engineering<sup>tm</sup>



- Unique curriculum focused on innovation skills not just entrepreneurship
- Helps students from all disciplines recognize “big” ideas and how to refine and communicate them
- Developed with the assistance of Doug Hall, UMaine alumnus and “American Inventor” judge

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# 1. What is an Idea



- define a partnership between engineering's systematic approach, creativity, and marketing; students will learn to recognize, articulate, and realize their best ideas
- provide the foundation for students to understand how innovative ideas **in any field** can be generated, articulated, and realized, refine and communicate them
- examine how social contexts and human institutions have been influenced by innovative individuals' putting ideas into practice.

## 2. Expressing Innovation



- Combines elements of the clarity of journalism, the precision of professional writing, and the expressiveness of creative writing
- Emphasis on writing as a tool for innovation, from idea creation and prototyping through persuading a target audience -gain ability and personal confidence in writing persuasive e-mails, memos, promotional and informational brochures and presentations
- Include guests from businesses from the local and state community seeking ideas for new marketing messages, products and services - translate big ideas into words that persuade others to take action

# 3. Making Your Idea Real



- Presents theories and methods for developing user-friendly digital and physical prototypes; students will use common prototyping tools to create, evaluate and refine designs
- Emphasis placed on universal design, ethics & social responsibility and obtaining input from multiple disciplinary perspectives
- Students create prototypes for real product and service ideas and challenges.

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# 4. Project Innovation



- Assist business and organization leaders to make measurably smarter choices for growth and to set up systems for generating and implementing new ideas
- Give students the tools not only to be entrepreneurial, but to innovate within any field of endeavor
- Presents theories and methods for developing user-friendly digital and physical prototypes; students will use common prototyping tools to create, evaluate and refine designs - “Mervyns”



# Innovation Center

Opened Fall 2006

- **Support student innovation and entrepreneurship**
- Courses, Workshops, Seminars
  - Business and Technical Assistance
  - Mentoring, Financing
  - **Place to become a business!!**
- **Innovation Teams – internal and external**
- **Entrepreneurship Club**
- **Living Learning Community**
- **Several new student incorporated companies in the last two years**

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# Intelligent Spatial Technologies

Chris Frank  
[www.i-spatialtech.com](http://www.i-spatialtech.com)



- Software for your cell phone that provides information about where you are and what you are looking at
- Looking to partner with a company in Denver

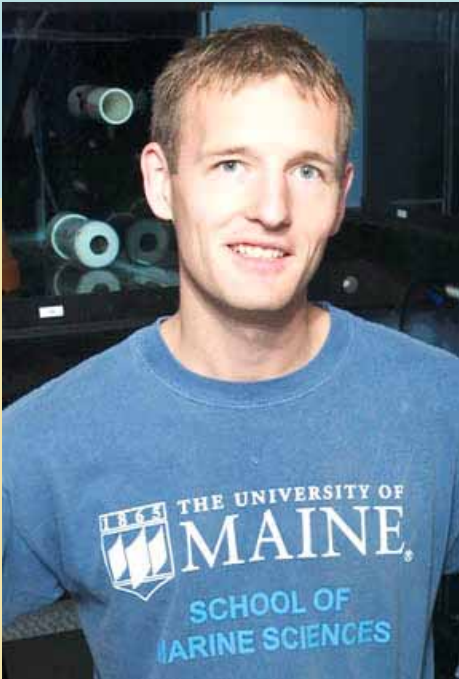
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# Yo Bon



- Product developed as part of a course
- Now manufacturing limited quantities
- Determining best market and manufacturing strategy

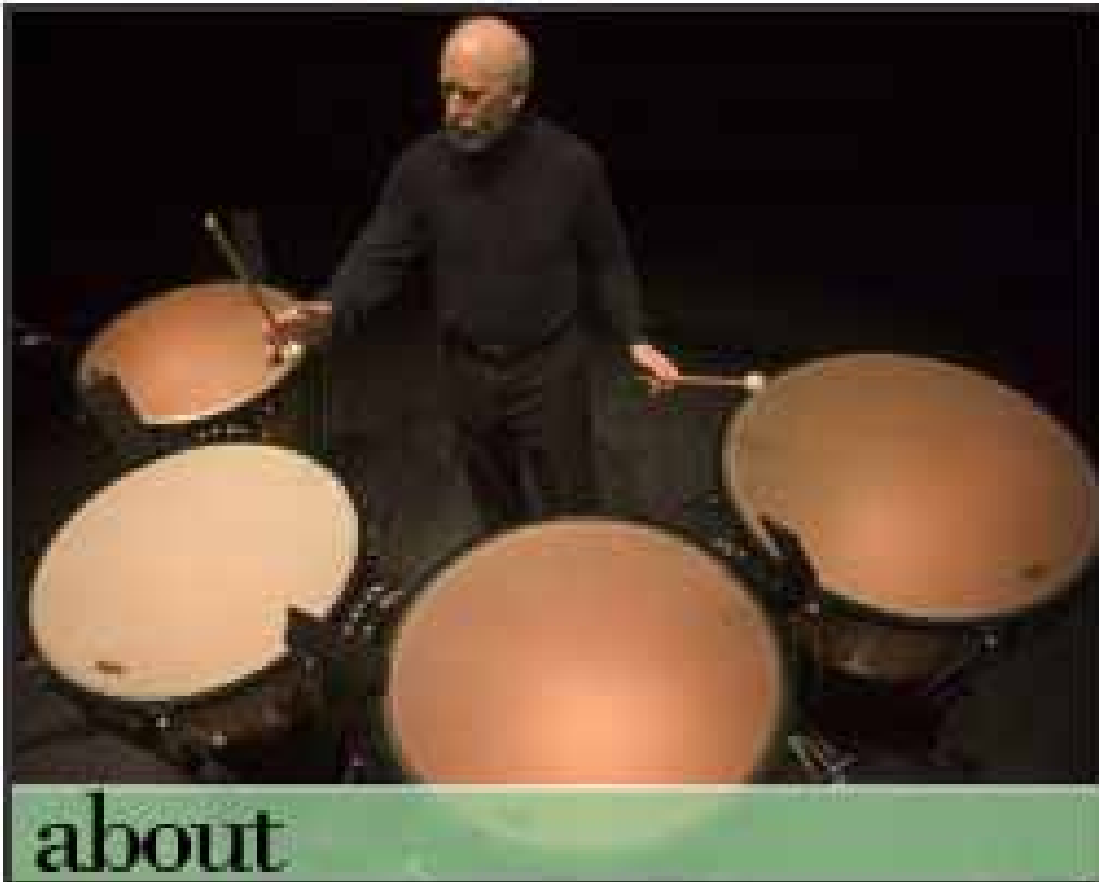
# Sea & Reef Aquaculture



- Tropical fish bred in captivity
- Sells to pet stores and wholesalers
- Moving toward large-scale production

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# GUDMUSE



- Instructional DVD for classical students and artists
- I-Team support Evan Richards, NewMedia
- Now partnering with other artists to produce new titles

Stuart Marris, Chair of the Music Department and Gudmuse founder

<http://www.gudmuse.com/>

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# Innovation Engineering™

Situation  
Priorities

- The need of academic and technical support for students and faculty to turn their ideas into commercial products and services
- Train students to be entrepreneurial irrespective of their major discipline
- Maine economy depends on small business development

