

# **Establishing and Sustaining Professional Master's Programs**

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UConn PSM Program



# UConn PSM History

- One of the original Sloan grantees, funded in 2001 (JGH and Linda Strausbaugh, Co-PIs)
- Purpose was to develop three programs:
  - Applied Genomics (2002)
  - Applied Financial Mathematics (2002)
  - Microbial Systems Analysis (2004)
- Focused on quality first, then building enrollments

# Overarching Issues

- 1) Establishment and regulatory licensure
- 2) Sound administrative support structure
- 3) Mounting the curriculum
- 4) Fiscal support
- 5) Interactions with industry
- 6) Measures of success

# 1) CT Licensure Process

- Each new program must be approved by
  - Departmental Faculty and Administration
  - Graduate School Executive Committee
  - Provost and Board of Trustees
  - State Department of Higher Education
- Process takes 6-12 months
- Process includes both licensure and accreditation

## **2) Administrative Support: Champions on Your Side**

- **Provost (revenue sharing)**
- **Deans of the Colleges (interdisciplinary access, release time)**
- **Graduate School (approval, oversight)**  
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- **Department Heads (courses, release time)**
- **Faculty Director (lots of time and effort)**

# Administrative Problems and Issues

- **Loss of a champion can derail or slow a program**
- **Example: Microbial Systems Analysis**
  - Highly respected faculty director became ill, then retired; no one stepped in to fill the void
  - Development stopped for 2+ years
- **Solution: create some redundancy in faculty leadership**

# 3) UConn Curricular Components

- **Discipline-specific graduate theory and practice courses**
  - Most already exist
  - New ones built on existing expertise
  - *Ca.* 18 credits of theory, 6-9 of practice
- **So-called “Plus” courses**
  - These set the professional master’s apart from a traditional master’s
  - *Ca.* 6-7 credits total

# Additional UConn Components

- **Team-oriented, problem-solving experience**
- **Exposure to a business/industrial setting through internships and cohort seminars**
- **Innovative exit exam to reinforce the skill set**

# Exit Exam Best Practices

- **Related to career aspirations**
  - **Scholarly reviews in preparation for jobs (e.g., patent issues surrounding stem cells, methods for typing soil microbial communities, instrumentation for genotyping)**
  - **Mock journal articles (from PSM research)**
  - **Technical report and presentation to company addressing a specific problem (based on internship)**

# UConn “Plus” Courses

- **Communication skills: technical writing and presentation**
  - GRAD 300 (1 cr)
- **Responsible conduct of research in academia and industry**
  - GRAD 310 (1 cr)
- **“Frontiers” Seminar series: interaction among students and corporate partners**
  - MCB 396 (1 cr, repeatable)

# UConn “Plus” Courses

- **Intro to business/industry concerns: entrepreneurship and policy**
  - Courses taught by industry scientists, where these issues are discussed in context
  - E.g., Regulatory Issues in the Biotechnology and Pharmaceutical Industries (2 cr)
  - E.g., DNA Fingerprinting & Civil Liberties (1 cr)
- **Internship**
  - GRAD 397 (3 cr)

# **“Plus” Course Problems and Issues**

- **A course in Entrepreneurship and a course in Management were both contemplated, but no agreement could be reached with the Business School**
- **Our advisory committee thought some courses taught by industry/government would be more beneficial**
- **Communication Skills is taught by a senior English doctoral student**
- **RCR is taught by program faculty**

## 4) UConn Fiscal Support

- **Sharing of tuition stream:**
  - 87% Return of academic year tuition
  - 75% Return of summer term tuition
  - Does not apply to graduate assistants
- **Revenue supports:**
  - Part-time program assistant
  - Instructional support (both salary and materials) for summer classes
  - Seminar program
  - Course development

# 5) Partnering to Meet Workforce Needs

- **PSM Industrial Advisory Board**
- **Connecticut Business & Industry Association (CBIA), the state business lobbying organization**
- **Connecticut United for Research Excellence (CURE), the state biosciences cluster organization**
- **Individual potential employers through networking and faculty personal contact**

# Partnering to Meet Workforce Needs

- **Benefits:**
  - Prime source of curriculum ideas (requires change of faculty attitudes)
  - Good source of adjunct instructors
  - Helps in promoting the programs and generating enrollments
  - Prime source for internship placement
  - Prime source for new program development (both positive and negative advice)
  - Additional source of fiscal support

## **6) Measures of Success**

- **Career Placement of Graduates**
- **Interest from Industry/Government**
- **Applicant Pool Characteristics**
- **Yield of highly qualified students**

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