Mentored Teaching Experience in Health Professional Courses
and
On Campus Teaching Opportunities in P^4 Program

NPA Annual Meeting
April 6, 2014
Mentored Teaching Experience in Health Professional Courses

History

– Thomas Jefferson University (TJU) Alumna Dr. Kristy Shuda McGuire—Associate Professor at Community College of Philadelphia (CCP)

– Many discussions re: teaching program

– Based on Dr. Shuda McGuire’s experiences while a TJU student
Thomas Jefferson University

Private Academic Health Center comprised of

Jefferson Medical College

Jefferson Graduate School of Biomedical Sciences (JGSBS)

Jefferson Schools of Health Professions, Nursing, Pharmacy, and Population Health

Training

Mainly medical and graduate education

Many JGSBS PhD students come from regional liberal arts institutions with teaching focus

78% of postdoctoral fellows interested in teaching opportunities
Mentored Teaching Experience in Health Professional Courses

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– Who would pay for such a program?
Background on Funding

Fall 2011 RFA for Career Guidance for Trainees grants - Due March 2012

– BWF Board of Directors approved $250,000 for a new 1 year, pilot program
– Demonstration projects to model affordable approaches to improving trainees’ readiness for stable, fulfilling careers
  • Help trainees clarify and improve their basic “PhD-level” skills
  • Help them identify how best to use skills to serve needs of potential employers
  • Provide approaches to thinking through career options
– TJU and CCP were awarded 1 of 6 grants at $50,000
BWF Grant Funding

**Trainees**
- Covered 20% of trainee stipend or salary for 3 months
- Covered money for transportation, pedagogical journal club book and supplies for laboratory exercise at CCP

**Faculty Mentors**
- Covered salary for 1 credit of extended time/faculty mentor

**Administrators**
- Covered 5% salary for PI
- Covered salary for 3 credits of extended time for CCP Program Director
Partners

PI: Lisa Kozlowski, PhD
Associate Dean, Postdoctoral Affairs and Recruitment
Jefferson Graduate School of Biomedical Sciences (JGSBS)
Thomas Jefferson University
Philadelphia, PA

Program Director: Kristy Shuda McGuire, MS, PhD
Associate Professor, Biology
Facilitator, Faculty Center for Teaching & Learning
Community College of Philadelphia
Philadelphia, PA
*JGSBS Alumna
Community College of Philadelphia (CCP)

• Largest public institution of higher education in Philadelphia
• ~ 40,000 students taking courses each year
• ~ 65% female
• ~ 60% African American, ~20% White, ~10% Asian, and ~10% Hispanic
• Median age of 25
• ~ 2 miles from Thomas Jefferson University
• Culture, Science, and Technology umbrella program
  – students interested in selective health professional programs, such as nursing and diagnostic medical imaging
Bureau of Labor Statistics

Best job prospects for postsecondary teachers
• Rapidly growing fields, including nursing, other health professions, and biological sciences
Health Professional Courses

Courses required by selective CCP health professional programs

- BIOL 106 General Biology I
- BIOL 109 Anatomy & Physiology I
- BIOL 110 Anatomy & Physiology II
- BIOL 241 Microbiology

~20 sections offered of each course per semester
~1000 students take each course per year
Full-time faculty usually teach 3 courses/semester
Participants

**Trainees**
5 PhD students & 5 Postdocs
(4 in Fall 2012, 5 in Spring 2013 and 1 in Fall 2013)

**Mentors**
Full-time PhD or MS faculty that have transitioned from bench to (chalk) board
Many hired within the past six years
Mentored Teaching Experience

• Half-day orientation with faculty mentors, trainees, program director and CCP Dean

• Observe all classes and labs for one health professional course (5 contact hrs/week)
  - BIOL 106 General Biology I
  - BIOL 109 Anatomy & Physiology I
  - BIOL 110 Anatomy & Physiology II
  - BIOL 241 Microbiology

• Meet with faculty mentor weekly (1-2 hrs/week)
  - Discuss student learning outcomes, instructional methodologies, and assessment strategies

• Prepare and teach one class and one lab

• Participate in a two-hour, bi-weekly pedagogical journal club
Pedagogical Journal Club

• Two hours, bi-weekly
• Led by Dr. Shuda McGuire
• Trainees required to attend and rotate leading discussion
• Postbaccalaureate teaching trainees also participated
• Developed into 2 JGSBS courses, GC740 Principles of Pedagogy and GC741 Principles of Science Pedagogy
Why do this for Jefferson trainees and/or why should trainees do this?

• Provide trainees with teaching experience different from that of a Teaching Assistant (TA), discussion leader, tutor, or lab mentor

• Supplement experience with pedagogical discussions

• Provide opportunity to develop relationship with mentor who has chosen this teaching career path

• Help transition from training to part-time (adjunct) and full-time teaching positions
Outcomes

• **1 PhD trainees**- TA and discussion leader for P^4^ then moved to postdoc fellowship and adjunct teaching position

• **1 PhD trainees**- Postdoc fellowship and adjunct teaching position

• **2 PhD trainees**- Finishing PhD and TA for P^4^ program

• **1 Postdoc trainee**- Doing part-time postdoc at TJU and adjunct faculty at Montgomery County Community College

• **1 Postdoc trainee**- Adjunct faculty at CCP
Lessons Learned/Challenges

• Require signed agreement by trainee and their Jefferson PI
• Commitment was more than 20% effort
• Highly encourage trainees to develop new laboratory exercise
• Stipend not necessarily compatible with training grant funding
• Faculty support (or lack thereof)
Few Words from Trainees & Mentors

“I don't think I would have been hired…if it wasn't for this experience. I was told that most postdocs applying for teaching positions have little to no experience teaching, so this experience set my CV apart from many others. In my interview (which included a 20 minute lecture), I was able to demonstrate not only active learning in a microbiology course, but also an awareness of student learning styles, active learning and course alignment that set me apart for the many other applicants.”

“Best thing I ever did at Jefferson”

“This semester’s experience at CCP has made me even more sure that I would like to pursue a career in undergraduate education.”

“As I aided the trainee in forming her own statement of teaching philosophy, I reviewed and renewed my commitment to the teaching profession. Involvement in this program prompted me to re-evaluate my own pedagogical approaches. I will continue reflection upon improvement of my own pedagogical approaches.”
On Campus Teaching Opportunities in P⁴ Program

Overview

• For individuals from non-science backgrounds – seeking to complete prerequisites for health professional school
• One-year Accelerated or Two-year Traditional track available
• What is unique about Jefferson’s program?
  • **Cohort style model - courses for P⁴ students only**
  • Academic & professional development built into the curriculum
  • Health professional test preparation built into the curriculum
P^4 Courses

• General Biology 101/102
• General Chemistry 101/102
• Organic Chemistry 101/102
• Physics 101/102
• Art and Science of Healthcare
  – Professional and Academic Development
• Healthcare Practicum
  – Volunteer and Shadowing Opportunities in Healthcare and Research
P⁴ Teaching Opportunities

• General Biology
  – 1 Mentored Teaching Position
  – 2 Teaching Assistant Positions

• General Chemistry
  – 1 Mentored Teaching Position
  – 1 Discussion Section Leader Position
  – 1 Teaching Assistant Position

• Organic Chemistry
  – 1 Mentored Teaching Position
  – 1 Discussion Section Leader Position
  – 2 Teaching Assistant Positions
Description of Positions

• Mentored Teaching Positions:
  – Observe Biology or Chemistry faculty during lectures
  – Meet with faculty to discuss curriculum development, lecture construction and student assessment
  – Prepare and deliver up to three lectures per semester in areas of your choice or expertise
  – Both voluntary and paid commitment:
    • Training and observation – voluntary
    • Lecture preparation and delivery – paid
Description of Positions

• Laboratory Teaching Assistants:
  – Preparation of experiment before start of laboratory
  – Lead/instruct students in the laboratory
  – Breakdown and clean up of experiment
  – Possibly grade laboratory reports
  – Potential to give pre- or post-lab lectures
  – Paid position

• Chemistry Discussion Section Leader:
  – Recitation sessions for General Chemistry 102 or Organic Chemistry 202
  – Review concepts and relevant problems with students
  – Paid position
Commitment and Expectations

• Time Commitment
  – Labs: 3-5 hours/week
  – Lecture: 3-8 hours/week
  – Discussion: 2-6 hours/week

• Responsibilities
  – Weekly contact with instructors and teaching faculty
  – Preparation of necessary materials

• Permission from P.I./Advisor
Outcomes

• 1 PhD trainee—Postdoc fellowship and adjunct teaching positions

• 1 Postdoc trainee—Faculty member at Philadelphia College of Osteopathic Medicine

• 1 Postdoc trainee—P^4 Program Coordinator
Challenges/Lessons Learned

- Engage faculty advisors sooner in the information and application process
- PI support (or lack thereof)
- Filling spots for chemistry positions
- Eligibility based on funding source
- International travel
- PhD defense timing