

## MINUTES

### MEETING OF THE CAREER ADVISORY BOARD, SCHOOL OF PHYSICS AND ASTRONOMY, UNIVERSITY OF MINNESOTA HELD APRIL 26, 2019

PURSUANT TO NOTICE DULY GIVEN, a meeting of the Career Advisor Board (CAB) was held on April 26, 2019, at the Physics and Nanotechnology Building in Minneapolis, Minnesota.

Board members in attendance: Matt Abroe, Ethan Bock, Dan Bruzzone, Dan Friker, Brad Givot, Paula Heron, Paul Kelley, Lisa Lust, Mark Madland, Donna Norberg, Mohac Tekmen, Paul Way, Addis Woldeesenbet

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The meeting was called to order at 8:30 a.m. The following actions were taken by the Board:

#### Approved Recommendations

The board members engaged in a discussion of career awareness and career preparedness gaps within the context of existing curriculum, faculty-led voluntary activities and student-led voluntary activities. Following this discussion, CAB approved the following recommendations.

- 1) Prepare and communicate a career awareness and preparedness roadmap.
  - a. Provide a specific and actionable career awareness and preparedness roadmap that covers the student lifecycle from undergraduate orientation through graduate programs. This roadmap may be composed of components recommended in section 2).
  - b. The roadmap should be used as a communication tool that is provided to all students with a declared major in physics, similar to the communication of physics “tracks” or 4-year plans.
  - c. A progress update should be provided to CAB within 6 months, with final review at or before the CAB calendar year 2020 meeting.
- 2) Consider the following opportunities for roadmap development:
  - Curriculum
    - a. Combine structured elements into a low-credit course offering
      - i. Industry tours
      - ii. Industry or career-based Colloquia
      - iii. CSE Mentor program
      - iv. Communication and presentation skills development
    - b. Label Physics 4052 and Astrophysics 4994W as “Capstone” courses.
    - c. Identify industry sponsors that will provide a pool of industry related content for optional student selection.
      - i. Review engineering capstone courses for current best practice.

#### Awareness

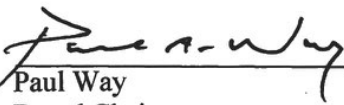
- a. Increase communication of “career on a page” slides via distribution to faculty, required inclusion in lecture courses, and availability on the physics department webpage.
  - a. Adjust the frequency of industry or career-based colloquia to match impact and attendance.
- b. Promote local industry conferences as opportunities for career exploration.

#### Leverage Existing Resources

- a. Utilize the CSE Mentor Program.

- b. Use career center and existing industry connections to offer summer internships as an alternative to REUs.
  - c. Provide a physics oriented mock job interview option, using CAB members as interviewers.
- 3) Measure career awareness and preparedness progress via a yearly survey taken by students.
- 4) Recommendations regarding computer and data science exposure
- a. Maintain emphasis on computer science exposure without a specific computer science requirement.
  - b. Continue to coordinate physics courses using data analysis and/or programming around a common analytics tool, providing students a marketable skill.
  - c. A Physics & Data Science major or track is not considered necessary by CAB.
  - d. Adjust curriculum and methods in physics tracks to include explicit data science methods and nomenclature.

There being no further business, the meeting adjourned. The next regular meeting will be scheduled and communicated within 12 months.

  
Paul Way  
Board Chair