

MEMORANDUM

TO: Mark Prus, Provost and Vice President for Academic Affairs

FROM: R. Bruce Mattingly, Dean of Arts and Sciences

DATE: April 15, 2021

RE: Reappointment and Promotion Recommendations for Eric Edlund

I am pleased to recommend Eric Edlund for reappointment for a two year term from 9/1/22 through 8/31/24, and for promotion to the rank of associate professor. These recommendations are consistent with those of the department personnel committee, the department chair, and the subschool personnel committee.

Dr. Edlund's teaching responsibilities have included several different lecture and lab courses in physics, from the introductory to the graduate level. He has also supervised independent study experiences. He developed new inquiry-based labs on such topics as robotics and programming for the PHY 201-202-203 sequence. In two different years, his PHY 203 students collaborated with a graphic design class from the Art and Art History Department on common problem pedagogy projects in which the students studied real world issues ranging from population growth to the spread of COVID-19 and then presented their results in ways that would be accessible to the general public. He taught a summer course on scientific programming and constructed a new wind tunnel facility for use in upper-division courses. He has mentored six student research projects, one of which (with Nick Rose) resulted in a SUNY invention disclosure. Three of his students have presented their work at Transformations. In 2019, Dr. Edlund was named a Writing in the Disciplines Fellow by the Institute for College Teaching and also receive a Fine Teaching Development Award.

A review of Dr. Edlund's CTE data shows a general upward trend in his results from fall 2018 to fall 2020. For instance, his overall score in PHY 203 went from 3.90 in spring 2019 to 4.56 in spring 2020. In PHY 202, the CTE average was 3.77 in fall 2018, his second semester teaching here. In fall 2019 it actually decreased to 3.26 but rose to 4.23 in fall 2020. Written comments from students over the years have been mixed. Some students have appreciated the effort he put into preparing his courses and explaining difficult material. A student from the fall 2020 PHY 202 class wrote, "Professor Edlund has done a remarkable job teaching this semester with the awful hand he has been dealt. The lab with the Arduino board has been good in my opinion, presents a challenge being on your own, but Prof. has been there answering any and all questions." A PHY 203 student from spring 2020 said, "Everything online was perfect. It felt like I was still in class learning every day during class time, liked the interview final because I can better explain myself in person." Other students have expressed concerns that his expectations are unreasonable, and that he has been impatient with students who do not understand. In fall 2019, a PHY 420 student said, "Instructor was quick to blame students for poor performance rather than take personal blame."

After his first review, Dr. Edlund took very seriously the suggestion that he consult with other colleagues about his teaching. His portfolio includes several teaching observation reports from faculty both inside and outside the Physics Department. In fall 2019, his classes were observed by Doug Armstead, Bob Darling, Moataz Emam and Rena Janke. Armstead wrote "The class I saw this year was both more polished

than last year's and more inclusive. I look forward to seeing more in the future." Darling noted that Edlund provided good responses to student questions, and suggested that he praise good questions and strive to call on everyone. Emam observed that Edlund's questions to the students emphasized the physical understanding of the mathematics. Janke observed clear, concise explanations reinforced with illustrations, along with frequent connections to prior learning. In spring 2020, Bob Spitzer observed two online classes, stating that "I actually felt I had the kind of experience that I would have had were I sitting in his classroom." He noted Edlund's conversational tone and his effective responses to all student queries, and concluded that "Edlund is, in all, a superb classroom instructor and academic." Sean Nolan provided the most recent observation from fall 2020, saying "Overall, the class was well planned, organized, and seemingly a success at reaching the day's learning objective(s). If I could offer areas of improvement it would be to be mindful of time, and to identify where scaffolding a problem would be beneficial to the students." Taking all of the evidence above into account, I believe that Dr. Edlund has shown a willingness to take risks and try new ideas, that he has invested significant effort into preparing his classes, that his instruction has been effective for a majority of his students, and that he is committed to continuous improvement.

Dr. Edlund has established a productive program of scholarly work. Prior to his initial appointment, he had 12 publications. Since then, he has published six peer-reviewed articles, including one on which he is the sole author, and two where he is the lead author. He has presented five refereed conference posters and gave a talk at the SUNY Applied Learning Conference describing one of his Common Problem Pedagogy projects. He currently has four new submitted papers under review. He was the co-PI on a \$900K grant from the US Department of Energy that ran from 2018 to 2021. He and his colleagues recently submitted a proposal to continue this work, and he just learned this week that their funding will be renewed for another three years. His scholarly work also includes a patent granted in 2019, and two artistic works that were exhibited in Dowd Gallery in 2020. His portfolio lists five new projects in development.

Dr. Edlund has made significant contributions in service. He has served on several department committees, organized many department activities, and represented the department at summer orientation, Open House and other campus events. He currently chairs the Physics Department Curriculum Committee. In 2019-20, he chaired the program review committee and in 2020 he became coordinator of the department's 3+2 physics/engineering program. Beyond the department, he has been a member of the Educational Policy Committee and the Alumni-Undergraduate Research Science Symposium since fall 2018. He served on the search committee for the Dowd Gallery director in 2018-19. He is a member of the ICT Online Teaching Group, a Writing in the Disciplines Fellow, and co-founded the virtual Faculty Lounge in Teams when the college first moved to online teaching in spring 2020. He received a 2018 award from MOVE (Men of Value and Excellence) for excellence in campus engagement.

In conclusion, Dr. Edlund is a valued member of the Physics Department who has demonstrated effectiveness in all areas of faculty responsibility. He is deserving of reappointment and has also satisfied the criteria for promotion to the rank of associate professor.

Cc: Eric Edlund, Assistant Professor, Physics Department
Moataz Emam, Professor, Chair, Physics Department Personnel Committee
Douglas Armstead, Assistant Professor and Chair, Physics Department
Karen Downey, Associate Professor, Chair, Math and Sciences Personnel Committee