Faculty Personnel Committee Feedback Notes Jordan C. Hanson, Physics and Astronomy Department – Fall 2021

Jordan, the Faculty Personnel Committee's purpose at this time is to provide you with our response to what you have presented to us about your performance in the four areas considered in faculty evaluation as specified in the Faculty Handbook, Part III: Section B.4: teaching, advising, service, and scholarship. These notes represent for you and for FPC a summary record of the points and issues the committee considered when reviewing your materials. We hope our comments enable you to evaluate your progress towards tenure and promotion and to plan your future PEGPs. As stated in the Faculty Handbook, "Individuals should recognize ... that a good progress report from FPC, or even a succession of positive reports, will not necessarily lead to tenure and promotion or guarantee retention, since other considerations – including departmental recommendations, administrative considerations, etc. – also carry weight in personnel matters."

Status:

Jordan, you are an assistant professor in the Department of Physics and Astronomy, and this is your fifth year in the tenure track at Whittier College. This PEGP submission represents your 4th year PEGP, as in 2020 you opted to postpone your submission for one year due to the COVID-19 pandemic.

Material submitted:

You submitted a 66-page PEGP, inclusive of front matter and three appendices. You also provided several electronic materials, including a CV, course syllabi, student evaluations, samples of student assignments, evidence of your scholarship, letters of references that you wrote for students, and letters from students and collaborators in your behalf. In addition, you submitted the FPC feedback letter from your last submission (Fall 2019), which was a third-year update focused solely on teaching. FPC has also received a letter from your department, which has been added to your file.

Department letter:

Jordan, your department is pleased with your overall performance and commented on the positive progress that you have made in your teaching over the years. In particular, they observed that students have responded well to your course offerings – especially your newly developed CON2 – and to the changes that you made when all instruction moved to a remote format. Your department also praises your commitment to scholarship and your ability to include undergraduate students in your work. It is clear to FPC that you have become a valued member of your department. Well done!

Teaching:

As you well know, Physics as a discipline can be quite intimidating. FPC appreciates your examples of how physics can be perceived and experienced by individuals from diverse fields and backgrounds. To this end, you nicely explain how, at a Liberal Arts Institution, Physics can be taught to students from a variety of majors in a way that renders the discipline relatable and approachable.

You are a mindful instructor and you have shown to be aware of the difficulties, including financial ones, that some of our students face and FPC recognizes that you have tried to do your part to alleviate this burden. One example of these efforts is your reliance on open-source textbooks and your initiative and willingness to share your experience and expertise with the broader college community.

You define your teaching philosophy as guided by the central concepts of "order" and "shared meaning," which you claim characterize your field. Despite your engaging explanation of these terms, we still struggle to understand "order" and "shared meaning" as the tenets guiding *your own* philosophy of teaching. We recognize and respect that you value "order" and "shared meaning" as organizing principles, but FPC does not see how they anchor in your philosophy of teaching or how they connect to the learning process. We are asking you to develop more pedagogically oriented cornerstones as part of your teaching philosophy. Some

ways of doing that might include describing how you interpret the learning process, how you incorporate tools and practices, and how the tenets of your teaching philosophy help you achieve the learning objectives that you set for your courses. You provide explanations of this kind in other portions of your PEGP. For example, when describing your approach to teaching introductory courses, you justify your use of *peer instruction* and *physics education technology* by referring to relevant pedagogical resources. This is a good start and, in your next PEGP, FPC would like you to give less emphasis to the mechanics of teaching (fewer details on how you teach) and, instead, to describe the "why" behind specific decisions about how you teach.

Further, in your course descriptions and associated reflections, you describe the focuses (such as curiosity, mental discipline, strength in all phases of science, etc.) that motivate and guide your teaching. While we appreciate learning about these overarching conceptual frameworks, it would be useful to us – so to better understand your thinking as educator – if you more clearly linked these focuses to your teaching philosophy and/or course-specific learning goals. To be clear, FPC is asking you to avoid lengthy technical descriptions of the details specific to your discipline, and instead focus on how you think about your teaching as a professor at a Liberal Arts institution.

You provided detailed description of the delivery methods that you have adopted with your students and of how you deploy tools (such as WAT) to identify topics that students seem to be struggling with. These examples tell us that you have a "plan" and know how to employ it, and students seem to respond well, as also demonstrated by the high scores in your course evaluations. Congratulations!

FPC appreciates you branching out and teaching courses that are, to use your own words, "outside [your] comfort zone." Students responded well to your teaching style and the material, indicating that taking the risk was worthwhile. Good job!

Scholarship:

Jordan, you are a committed and productive scholar. Your work falls primarily under Boyer's categorization of *scholarship of discovery* and *scholarship of application*. FPC thanks you for explaining what your field of work entails in a way that non-physicists ojn the committee could understand. We appreciate your reflections of how some of your research work has benefited you as a teacher, as in the example that you provide regarding how "researching mathematical physics and radio waves has sharpened [your] teaching of electromagnetism."

Among your many accomplishments, you facilitated the College's participation in the IceCube Collaboration, and we hope that this partnership will bring the results that you hope for. FPC agrees with you that your research work with the Office of Naval Research is very promising, and we are pleased to see that it has already resulted in fruitful connections and collaborations.

FPC applauds you for seeking external funding and for successfully getting work published in relevant peer-reviewed journals. Finally, we appreciate your effort to include students in your scholarly work. It is clear that you are doing a good job at this, as several of your students shared positive, even enthusiastic, comments about their experience working with you.

Advising:

Your advising and mentoring section of the PEGP is composed of reflections regarding advising first year students, students in STEM majors, and in the Whittier Scholar Program. You describe how you rely on "order" and "shared meaning" (the two pillars of your teaching philosophy) in your advising. However, while these components are clear as you describe the mechanics of your advising practice, we have a hard time seeing the more conceptual, philosophical part playing out.

FPC recognizes that you make sincere efforts to get to know your advisees. However, the structure that you employ to help them navigate their choices and aspirations appears somewhat "rigid." How do you advise students who do not have a clear vision of whether to apply to graduate programs or to non-academic fields up until graduation? What if developing a *LinkedIn* profile further narrows their options instead of opening their eyes? The decision tree that you include in your PEGP does n ot lessen these concerns and FPC would like to hear your perspective on this matter.

We appreciate you "taking us with you" and one of your advisees to Antarctica and walking us through the frustrations and disappointments – and constant readjustments – that characterize field work, all the way to the immense satisfaction that comes with successful data collection! However (and since you yourself acknowledge the above-average length of your PEGP) we encourage you to think of ways to convey your work as mentor and advisor more succinctly. We invite you to do so from a self-reflective point of view, rather than through a step-by-step description of individual activities.

Service:

Jordan, FPC appreciates your commitment to the College and the enthusiasm that you put into your service work for the College and beyond. The experience that you describe in relation to your service in ESAC is the perfect representation of the personal growth and enrichment that faculty should obtain from meaningful and dedicated service work. FPC commends you for your willingness to join the WSP council following your positive experience mentoring a student through their original research. This is wonderful and it further allows you to see your discipline through an interdisciplinary lens.

Your commitment to improve the presence of female-identified students in STEM and more specifically in your disciplines through the Artemis Program is admirable and much needed. Equally laudable is your effort to communicate to the broader college community the value of open educational resources through workshops. FPC noted, however, that some of the terminology that you chose seems to counter your desire to make physics more inclusive. Specifically, we are referring to your use of the term "young ladies" (Section 2.2.3, page 12 of the PEGP) to describe women who aspire to become scientists and to your reference of some of your male students as "physics boys" and "bro" (Section 2.6, page 21 of the PEGP). As you may understand, these terms may hinder your effort to foster greater gender integration in the field of physics.

Early in your narrative, you acknowledge the excessive length of your PEGP. While we greatly enjoyed reading your document and getting to know you better, we have a few recommendations on how to shorten it without sacrificing breadth and depth. For example, you describe in great detail several of the activities that you led as a member of ESAC. We recognize that these are great illustrations of your work, however a more succinct description of what you took home from the experience would be sufficient for FPC to appreciate the growth process you have encountered and plan to build on. Similarly, some technical references to committee-specific activities may be hard to follow for those who were not on that committee. Considering that the main scope of FPC is to evaluate your professional growth and your plans on how to be an effective educator and scholar, these details are not exactly pertinent.

Please, do not take these comments as a criticism, but simply as stylistic advice to facilitate FPC's comprehension of your experiential process. Simply put, your narrative as a little dizzying with details and, frankly, hard to follow. FPC recommends that you, in your next PEGP, convey your reflections in a more cohesive and succinct way.

Conclusion:

These review notes represent the committee's reflection on your accomplishments during your probationary period. We hope that you understand that we make these comments in the spirit of helpful candor and that candor among colleagues, while sometimes difficult, is necessary for us to thrive as an intellectual community. In addition, these notes offer recommendations and questions that FPC would like you to

consider and to reflect on in your next PEGP. Though you are not required, you have the option of submitting next year if you have concerns not addressed here and for which you would like more feedback. A fifth-year document serves as an update and not a full-blown submission. If you decide not to submit a PEGP next year, you and your department need to consult the *Faculty Handbook* for the fifth-year process to be followed if a PEGP is not submitted. Part III.5.B describes the fifth-year letter that is due by October 15 from the department and Appendix 11 outlines the discussions that should take place that year between the department and the tenure candidate.

In either case, your sixth-year submission should provide FPC with a full assessment of your development as a teacher and scholar throughout your probationary period and your effectiveness in the four areas we assess. It should address what student outcomes are evident from your teaching and advisement; how your service to the college and community has evolved; your accomplishments in the area of scholarship; and your plans and goals for the next stage of your development. As you know, the sixth-year submission is an important document and it is an opportunity for you to reflect upon your development and make your best case for tenure.

Please remember to submit a copy of these review notes with your next submission, which will be due on October 15, 2022.