Agenda and Evaluation Report for
Program Review Face-to-Face Meeting
University of Wisconsin-Whitewater
Physics Majors and Minors, 2024-2025

Date: 4/23/2025

In Attendance: Assistant Vice Provost Kristin Plessel; Dean Jason Janke (L&S); Department Chair/ Program Coordinator Ozgur Yavuzcetin; faculty and staff in the Physics program Steven Sahyun; Program Review Team Chair Dennis Kopf; Assessment Representative Katy Casey

1) Introductions

2) Overview of review team evaluation, program comments:
   i) At the start of the meeting, the Program Chair Dr. Yavuzcetin asked to share some information on the program status and accomplishments. Some of the highlights included a department overview which provided important context of the program relative to others in size, content, and rigor. In addition, he shared the value of the dual-degree program established between the UWW Physics Department and three other regional comprehensives.
   ii) The review team also acknowledged the accomplishments of the program and various strengths evident in the self-study. the review team commented on the time invested in supporting students through the program in a timely fashion, and prioritizing the integration of high impact practices.

3) Discussion of Review Team's evaluation:

   a) The program is doing a lot of good work and has an impressive alumni base. Are there ways to make the work more visible to prospective students and external stakeholders?

      i) The Department Chair shared a number of program accomplishments, including some by program alumni. The question was posed on how to make those accomplishments more visible, and discussion ensued regarding how to promote the work of the program and maintain current teaching, research, and service loads. The AVP and Dean shared ideas such as revising content of the website, and sharing information with the Dean that he can use when promoting the College and its various programs.

   b) Provide an update on the open faculty line.

      i) Since writing the self-study, the program has filled this open faculty line.

   c) The credits to degree are high, and the author did a good job describing the reason. Can you share more about how that may or may not impact student interest or retention in the program?
      i) The program reiterated that their curriculum is aligned well with that of other Physics programs, and reflect the rigor necessary to be successful in the field. Additionally, they reported high retention rates. There was some discussion of how the program supports student who may struggle. Overall, once students select the Physics major, their interest and retention in the program is not negatively impacted by the number of credits or rigor.

4) **Recommended Actions**: The evaluation report lists three recommended actions (see page 13, point 4) related to program visibility, reporting on student learning data, and advising and career exploration models.

5) **Recommended Result**: *Continuation with minor concerns*
   - **Please make use of the detailed comments in the evaluation report (below).**
   - **Please select all applicable boxes and fill in the appropriate year:**

☒ **Next FULL self-study will be due to the Dean on May 1, 2031 and to the Assessment Office on August 1, 2031.**

6) Adjourn.

Review team report is attached below, including Recommended Actions and instructions for Progress Reports (if required).

University of Wisconsin-Whitewater
Review of Program Review Self-Studies
Undergraduate Programs, 2024-2025
Majors/Minors and Standalone Minors

Date of Evaluation: 11/21/2024 Short Self Study (SS*)_____
Program: Physics Major ☒ Minor ☐

Evaluations submitted by: Cody Marie Busch, Paul House, Onochie Fan-Osuala, Katy Casey, and Dennis Kopf
Review meeting attended by: Cody Marie Busch, Paul House, Onochie Fan-Osuala, Katy Casey, and Dennis Kopf

I. General Program Information

1. The program's mission statement reflects the nature and scope

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

2. The program is aware and reflective of changes affecting improvement since the last review.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0
First self-study for the program	0

3. Characteristics of the program set it apart from others when compared regionally and nationally. The unique aspects of the program attract students.

Sufficient Evidence	1
Some/Partial Evidence	4
No/Limited Evidence	0

4. The program has been responsive to actions recommended from the previous Audit and Review Reports; Progress Reports have been submitted, if relevant.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0
First self-study for the program	0

5. The program has achieved or maintained program-level accreditation or has considered seeking it, where appropriate (only select N/A if there is no accreditation available).

Sufficient Evidence	0
Some/Partial Evidence	0
No/Limited Evidence	0
N/A	5

General Comments related to Section I

The major seems to have a great value proposition for students and the educational quality is strong. Few students appear to be coming to Whitewater with the express purpose to study physics. Finding ways to set the program apart for its peers such as Eau Claire and La Crosse could help in this regard.
It seems like there is a relatively large change in staff over the past few years. Outreach to high school science and physics teachers is a great idea. I'd like to hear how effective it has been.
I would have liked to read how some of the characteristics of the UWW program set it apart from other physics programs regionally and nationally.
I3. The program listed unique aspects including high end lab spaces, programming leading to engineering, and interdepartmental collaborations.
In the section where you discuss how your program is unique/distinguishes from other similar programs, you briefly mention collaboration with other departments between faculty. Are there opportunities for students to collaborate with the students in those programs? That would be an excellent experience for your students! The travel study opportunity sounds incredible!

II. Alignment within the University

1. The program contributes to the fulfillment of UW-Whitewater's Mission and Strategic Plan.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

2. The program supports general education and/or proficiency programs at the University.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

3. The program is collaborative and supports other academic programs across the College and/or University.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

General Comments related to Section II

You mention that the department is lacking integration of high impact practices and that you can encourage faculty to engage with undergraduate research. You are already doing research so it seems like an easy "ask" to formalize that process for undergraduate research opportunities! It would be good to have more information on specifics for how to provide mentorship opportunities, specifically, you mention underrepresented students.
The skill development description is good.
The program can try to see if it can touch other general education goals beyond the three highlighted in the self-study report.
II1. The author did not clearly explain how the program supports the UWW mission. When I read the UWW mission statement, I see "innovation" "transformation" and "economic driver." These leading institutional goals were not addressed in the response.

III. Program Goals & Accomplishments

1. Program goals and objectives were identified and undertaken to improve/advance the program.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

2. Goals currently in place will contribute to the program's advancement. Criteria for determining success were measurable and attainable.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

3. The program has a process for setting and assessing goals and making decisions about changes to the program.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

General Comments related to Section III

The goals appear achievable.
The current goals address important issues in the department and are well stated.
I commend you for your collaborations with UW-Rock to increase access to this content for students across both institutions. Additionally, the dual degree program seems like a great option. It would be helpful to have clearer criteria for determining success for your program goals. It is hard to objectively measure "timely completion" or "effective collaboration". How timely is timely enough? And how will you know it's effective? Just a minor point but want to make sure that you can say you met those goals in the next review!

IV. Curriculum 1. The program has a clearly articulated, efficient, and purposeful curriculum.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

2. The program prepares students in majors, minors, and related emphases tracks in post-graduation and other applicable experiences.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

3. Changes to the program's curriculum were summarized and considered student needs/interests and/or internal and external stakeholders.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

4. Students participate in high impact practices.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

General Comments related to Section IV

The junior seminar seems like a good idea. The community-based learning course is very interesting.
I would like to see the participation numbers of students for some of the HIPs especially those that are not required but encouraged or available.
IV2. Great evidence for preparing students for post-grad outcomes- the student testimonials were a nice addition, thank you for sharing.
It is excellent that statistics is offered every year now via your partnership with UW-Rock. The idea of a robotics club sounds great and would definitely help with your goal of career/grad school preparedness and integration of HIPs!

V. Assessment of Student Learning

1. The program uploaded an assessment plan that includes student learning outcomes.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

2. Student learning outcomes are "mapped" to the curriculum.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

3. The program provided a timeline indicating when faculty and staff assess SLOs. The timeline is manageable and sustainable.

Sufficient Evidence	1
Some/Partial Evidence	4
No/Limited Evidence	0

4. The program described the measures/processes they use to assess SLOs, and the criterion for performance.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

5. The program described the results of the assessment data collected.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

6. Student learning outcomes are aligned with UWW's Essential Learning Outcomes in a way that is reasonable and meaningful.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

7. The program described specific actions individuals in the program took, or will take, to make changes to the program based on assessment results.

Sufficient Evidence	2
Some/Partial Evidence	3
No/Limited Evidence	0

General Comments related to Section V

More detail in the assessment plan on the timeline for evaluation of data would be helpful.
I think the program needs to better describe their assessment results as only SLO1 appears to have a metric for performance. Also, the findings from the assessment should be able to tell the story of students' performance across all SLOs
It would be helpful to have more concrete/explicit details about when the ELOs/SLOs are assessed and the assessment criteria. I am concerned about how much of their plan to address assessment data/changes relies heavily on the instructors in the program. Are there any other resources/departments that can help with some of these skills?

VI. Student Recruitment, Enrollment, Retention, and Graduation: Trend Data

1. Five-year enrollment and graduation trends reflect program vitality and sustainability.

Sufficient Evidence	1
Some/Partial Evidence	4
No/Limited Evidence	0

2. The program described the College and/or University recruitment activities the program engages in to help maintain enrollment.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

3. Credits-to-degree show that students can complete the degree in four years, or reasonably efficiently.

Sufficient Evidence	4
Some/Partial Evidence	0
No/Limited Evidence	1

4. Students can enroll in appropriate courses and proceed without delaying graduation.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

5. The program described retention issues, if any, impacting enrollment.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

6. Claim that the program is oversubscribed, undersubscribed, or at optimum level is justified or supported by examples or data.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

General Comments related to Section VI.A

I am not sure the information provided is enough to reflect program vitality and sustainability. The program has good plans and activities to help maintain enrollment. I think the credits to degree being above 128 will affect students' ability to complete degree in four years. Program can work on efforts to see how the current credits can be reduced or to get students to enroll or declare majors earlier.

VI2. Faculty in the program are engaged in the region and have prioritized the visibility of the program in the region. VI3. At this point, it does not seem the program can be completed during a 4-year period, and good reason was provided. However, there have been some curricular changes that may help reduce credits to degree if that is in fact the goal. VI5. The author provided a very thoughtful and reflective response to this item, and it is clear that students' progress through the program is considered. The content of this program appears to be an academically rigorous program, which cannot be avoided if students are to be sufficiently prepared for this field. It does seem the program can focus on building faculty-student relationships to enhance student motivation and help faculty understand the nature of students' struggles. VI6. It will be difficult to make a case for more faculty in a program where enrollment has been trending down over the past 5-years, or at best inconsistent. The comparison across system schools also show we do not produce as many graduates from this program as other schools. It seems efforts should be spent on figuring out how to support students through the program, and offer upper-level lab courses, with current staffing.

I want to commend the faculty/staff for continuing to offer a great program with limited resources. Additionally, it appears that outreach efforts to draw in more potential students have not been impacted despite limited faculty/staff to actually facilitate these experiences. Enrollment/graduation trends appear consistent with other UW schools.

VI. Student Recruitment, Enrollment, Retention, and Graduation: Demand for Graduates

1. Placement information indicates that program graduates find employment or continue their education.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

2. Data suggests that employment opportunities for graduates of this program will remain strong.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

General Comments for VI.B

Establishing contact with graduates is difficult but would be helpful.
The evidence shows high demand for physics graduates.
As noted in this report, approximately 50% of graduates responded to the exit survey. It would be helpful to have someone in charge of this survey to ID students who have not completed and perhaps do more of a targeted outreach...That might help with faculty/staff having to look up students via an online search. Putting efforts in on this initiative, might help with justifying your "asks" when you can accurately ID where your students go after they graduate.

VII. Resource Availability & Development: Faculty and Staff Resources

1. Information on the numbers of full and part-time faculty and staff is provided.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

2. The program has identified staffing changes since the last review.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

3. Expertise of teaching staff are aligned with the needs and future vision for the program.

Sufficient Evidence	2
Some/Partial Evidence	3
No/Limited Evidence	0

4. The program has identified anticipated staffing changes or areas of need, and how these may impact the program.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

5. The program described factors that may be impacting their ability to recruit faculty and staff.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

General Comments related to section VII.A

Adding the astronomy faculty member and catering to high student demand in this area makes a lot of sense. Good luck with this initiative.
Astronomy and astrophysics, an important component of the growth of the program does not have tenured/tenure-track professor(s). It is still handled by academic staff and adjunct. While the challenges to recruiting is highlighted, including compensation, the program should make all efforts that they can to fill the position for astronomy/astrophysics.
There is a need to explore additional hires or creative solutions for staffing to grow this program. I didn't see any information about how you are getting the word out about the open position (the search that failed). It seems like such a unique specialty area and as noted in the report, this department is competing with other programs for qualified candidates.

VII. Resource Availability & Development: B. Student Resources

1. The program has adequate personnel, student help, and service and supplies to serve its undergraduate students.

Sufficient Evidence	3
Some/Partial Evidence	2
No/Limited Evidence	0

2. The program has adequate facilities, equipment, technological, and library resources to effectively serve its students.

Sufficient Evidence	3
Some/Partial Evidence	2
No/Limited Evidence	0

General Comments for VII.B

Program needs to hire additional faculty and needs a maker-space area/3d printers etc...
The Makerspace would be a good addition.
I would have liked to see the student per faculty ratio as this was not reflected in the response. Also, students' reviews would have been helpful to provide support on whether the program has adequate facilities equipment, technological, and library resources to effectively serve them.
Do any other UWW programs benefit from the lab and equipment utilized for this program?

VIII. Conclusions and Recommendations from the Department or Program

1. Areas of strength are discussed.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

2. Areas of improvement and continued progress are discussed.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

3. Recommendations and resources are discussed.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

General Comments for VIII

Exemplary outreach efforts, especially considering the number of faculty involved in the program Great job on outreach to companies especially given the low number of students in the program. This is more than adequate. Continue to develop dual degree program opportunities for students, especially given how this has been successful at Eau Claire and La Crosse. Create a more specific timeline for completion as well as steps to completion. Consider adding a Physics/Engineering club - this has the added benefit of allowing students to apply for SUFAC funding for the club.
I think the program strengths were highlighted, and also areas that need improvements were noted together with recommendations.

IX. Reviewer Conclusions 1. Strengths of the Program

Exemplary outreach efforts, especially considering the number of faculty involved in the program. Great job on outreach to companies especially given the low number of students in the program. This is more than adequate. Faculty involvement in HIPs is high. Excellent job!
The Physics departments has a well-designed curriculum that produces graduates prepared for further studies or work. They have made changes to make the path to graduation easier. Small class size and engagement by faculty with students is good.
The program has good goals and service to general education Partnership with other schools for dual-degree programs. The program is achieving a lot with the limited size of the faculty. The partnership with the Geology/geophysics program to provide a travel-based course to Iceland. There is a demand for the program's graduates
1. The program is doing a lot with a lean faculty/staff. Not only are they covering the core classes, but they participate in outreach opportunities and facilitate HIPs. 2. The program is very forward thinking. I appreciate that they are thinking about what students are interested in and how they can facilitate those kinds of courses/experiences.

2. Areas for Work or Improvement

Make sure there are sufficient opportunities for undergraduate research, particularly now with change in the faculty. Continue to work on outreach efforts to high schools for students and to businesses for opportunities to collaborate.
The program should continue to work on growth, particularly in recruiting more students. Find ways to get students started in the major earlier instead of them joining later. Find ways to see if alumni can help or also play a role in helping the program grow. I'm presuming that the department will have a list of alumni giving that it has been around for a while.

1. I would encourage the faculty/staff to identify how other programs/people can support some of these initiatives. For example, I don't think that the faculty/staff in the program need to be solely responsible for resume building and review. 2. I think a more systematized advising model would be beneficial. This can be housed in a CANVAS course and you can provide MANY resources within this course. This might include resume building resources! 3. I think it is beneficial to think about a plan B and C if the faculty search is not successful. Of course, you hope that it is, but I worry about hinging all forward progress on a person.

3. Other comments/questions

Continue to develop dual degree program opportunities for students, especially given how this has been successful at Eau Claire and La Crosse. Create a more specific timeline for completion as well as steps to completion. Consider adding a Physics/Engineering club - this has the added benefit of allowing students to apply for SUFAC funding for the club.
The program provided data on a number of system schools that have Physics programs that are producing more graduates. I am interested to learn what the draw may be to those programs and how this program fits into that landscape of Physics program offerings across the region?
Consider adding a Physics/Engineering club - this has the added benefit of allowing students to apply for SUFAC funding for the club.
Continue with efforts to hire faculty for astronomy/astrophysics as that is important to the growth of the program giving the current focus.

4. Recommended Actions (please specify):

1. Describe the ways you are capitalizing on the unique aspects of your program, those that set it apart from others in the region, to increase the visibility of the program and potentially attract more students.

2. Include a clearer description of the timeline for reviewing student learning data. In addition, share the actions the program takes based on the review and analysis of student learning data.

3. Provide more information on the current advising and career exploration models. Could there be other ways to structure these important components of your program so that the current/faculty staff are not overworked?

5. Recommended Result

Insufficient Information in the self-study to make a determination; revise self-study & resubmit.	0
Continuation without qualification. Next self-study will be a shortened one focusing on the Recommended Actions from the current report.	0
Continuation with minor concerns. Progress report may be required, at the discretion of the review team.	5
Continuation with major concerns in one or more of the four areas; submit annual progress report to the College Dean & Associate Vice Chancellor for Academic Affairs on progress addressing the major concerns	0
Refer to Provost for action. This option is selected if the report is not completed by the date due.	0