

New Fairfield Public Schools

New Course Proposal

Directions:

Before completing this form, please discuss this proposal with the appropriate administrator(s) in your school. Complete this proposal form thoroughly, and attach any supporting documentation that would help the Board of Education's Curriculum Sub-Committee understand this proposal better. Be sure that you adhere to all deadlines, and be certain to acquire all required signatures. To ensure that a course can be properly planned for, if it is intended for a coming school year, please complete it by October 31. All other proposals can be forwarded at any time of the year.

Course Being Proposed UCONN ECE PHYSICS 2 (PHYS 1202Q)

Proposal submitted by Jean Gephart and Marco Santarelli

School New Fairfield High School

1. Indicate the department/grade level in which this course/program will run.

Science Department (12th grade)

2. Please indicate if the new course or instructional program is semester-long or year-long, and indicate the applicable grade levels. Please indicate the course level if applicable.

This course is a year-long course that continues our UCONN ECE PHYSICS 1201Q offering. Students would be eligible for 4 college credit hours. Students may take this course as a college-level physics elective without college credit.

3. Please give the rationale for this proposal, and include its relationship to the past, current, and future development of curricular offerings in New Fairfield.

This course is meant to extend our current AP/UCONN 1201Q course and act as a second-semester college physics course. It also provides an opportunity for students to take a college-level physics course.

4. Please indicate the target population for this proposal.

12th-grade students who have completed AP/UCONN Physics 1201Q with a grade of C or better. Students who elect to take this course without the 1201Q physics prerequisite course (or receive below a C in the course) will not be eligible for college credit but will receive a 5-wt credit for this course.

5. Please explain if this course or instructional program is an addition or a replacement for an existing course or program.

This course is a new course which will cover topics in Physics which are currently not offered. These include electricity, magnetism, waves, light, geometric optics, nuclear and quantum physics.

6. List any prerequisites for this course or instructional program.

AP/UCONN Physics 1201Q (to receive college credit).

Students who want to take the course without college credit should have had an introductory physics course.

7. Please write a short description of the new course or instructional program that would be suitable for the high school *Program of Studies* or for a curriculum document.

Physics 2 |ECE

Grade 11-12

Full Year | 1 credit

STEM | Science

Prerequisite: A passing grade in AP Physics I ECE. Precalculus may be taken concurrently. Students wanting to take the course without college credit must complete an introductory physics course.

Wt 5

UCONN 1202Q will cover the fundamental laws of classical electricity and magnetism. In addition, the course will cover optics such as waves, light, and geometric optics, and introduce select topics of modern physics, including special relativity, nuclear physics, and quantum mechanics. Students will be eligible for four college credits through UConn's "Early College Experience" Program in Physics or elective credit. Students who did not take the UCONN 1201Q course will not be eligible to receive college credit, but will still receive a 5-weight for the course.

8. Please list the long-term course or program goals that define the broad outcomes that this course or program seeks to help students achieve.

Students in this course will be able to complete a full year of college physics if they take both UCONN 1201Q and 1202Q (8 College Credits). For students who do not take the course for college credit, this course allows them to explore more physical science within their course selection. We do not have upper-level physical science courses beyond AP Chemistry and UCONN Physics 1201Q. Students accelerating in the sciences are taking

AP Chemistry as their chemistry course and UCONN Physics 1201Q course as their physics course.

9. Please indicate what topics, units, or material will be used to meet the long-term goals listed above. What assessment strategies will be used in this course or program? What are the unique components of this course or program content that make it a worthwhile addition for our students?

The course will require College Physics- a strategic approach with Mastering Physics. It will cover second-semester physics topics that are currently not covered in the 1201Q course. The course is a non-calculus-based course that includes the principles of electromagnetic phenomena, including electromagnetic radiation, waves, and electrical circuits. Assessments will be given in a variety of ways, including the following: quizzes, exams, lab practicals, lab quizzes, and a final exam which will be provided by the UCONN Physics Department. This course will expose our students to college-level instruction and assessment.

10. Please enumerate the resources – both human and financial – that you anticipate will be needed to develop this course or program correctly. What impact would this proposal have on scheduling, staffing, and resources? Consider training, equipment, and space needs.

This course requires a UCONN ECE-certified instructor. The textbook used would be the same as the textbook (new adoption) for Physics 1201Q. We would use the current staffing to teach this course. The new building has an additional physics lab (flexible space) that will be beneficial for this new course.

11. If this course will require a textbook, what is the title and cost estimate of a likely text?

Title: *Digital Update College Physics a strategic approach 4th edition*

Author(s): Randall Knight, Brian Jones, and Stuart Field

Publisher: Pearson

Publication Date: 2023

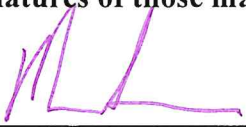
Reading Level: 1120L

Price per book and the number needed: \$182.

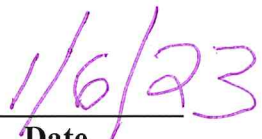
12. What impact will this course/program proposal have upon other courses/programs currently being offered in the district?

This course offers an additional upper-level physical science course for our students. We would use current staffing for this course.

Signatures of those making this proposal:



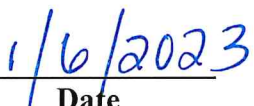
Teacher



Date



Department Chair (if applicable)




Date



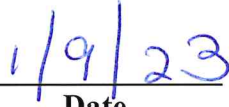
Principal



Date



Assistant Superintendent



Date

December 20, 2022

Mr. Marco Santarelli
New Fairfield High School
54 Gillotti Rd.
New Fairfield, CT 06812

Dear Mr. Santarelli,

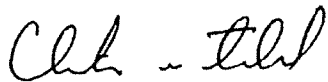
It is my pleasure to inform you of the expansion of your UConn Early College Experience certification to include certification to teach **PHYS 1202Q: General Physics II** at New Fairfield High School beginning with the 2023-2024 academic year. As a certified UConn ECE Instructor, you are an affiliate, a role similar to that of a University of Connecticut adjunct faculty member.

The courses in this program are university courses, and the content and level of work is determined by the University of Connecticut. A student must pass PHYS 1201Q with a grade of a "C" or higher to continue on to PHYS 1202Q. PHYS 1201Q and PHYS 1202Q cannot be taught concurrently. We encourage you to stay in contact with UConn ECE Faculty Coordinator for Physics, Dave Perry (dave.perry@uconn.edu) for clarification on any course related concerns. Certification requires ECE instructors to adhere to all standards set by the University of Connecticut and by NACEP (National Alliance of Concurrent Enrollment Partnerships). This includes attendance at a UConn ECE discipline specific professional development workshop once every other year to remain certified.

You will be notified of the next UConn ECE Physics workshop during the 2023-2024 academic year via the ECE Physics listserv (ECE_PHYSICS-L@LISTSERV.UCONN.EDU). Workshop and event dates are also posted to the ECE website's "Dates to Remember" section for reference. You will not need to participate in New Instructor Orientation again, however, should you have questions about PHYS 1202Q, please reach out to Dr. Perry prior to the start of the 2023-2024 academic year..

The UConn ECE Site Representative at New Fairfield High School is Stephanie Cheung. The site representative is responsible for overseeing the administrative aspects of the program at their school and are available to answer specific questions that you may have regarding program details. In addition, our administrative office staff is always available to assist you at (860) 486-1045. Many questions can also be answered on our website at www.ece.uconn.edu. I am glad to welcome you as an instructor in the program and to the University family. If I can be of any assistance, please let me know.

Sincerely,



Christopher Todd
Executive Director
Office of Early College Programs

cc: Dave Perry
James D'Amico
Stephanie Cheung