



SEATTLE COLLEGES

Central · North · South · SVI

PHYS&221 - Engineering Physics I

Document Type: Master Course Outline Supplemental

Proposal Type: Revision

Requester(s): Elizabeth Schoene

College: South

Origination Approved: 10/12/2015 - 9:40 AM

BASIC INFORMATION

Requester(s): Elizabeth Schoene

College: South Seattle College

Division/Dept: Academic Programs

Dean: Laura Kingston

Peer Reviewer(s): Sean Rogers

COLLEGE SUPPLEMENTAL

Proposed Quarter of Implementation: NA
Spring 2015

Request Provisional Exception

Class Capacity: 24

Note: The following questions are being asked in order to fulfill [Seattle Colleges District VI and AFT Seattle, Local 1789 A](#)

Have you discussed the class cap for the course with your unit administrator and with other unit faculty that will be teaching the course?

Yes, discussion has been held.

Is the class cap number that you have indicated mutually agreed upon by unit faculty and unit administrators?

Yes, agreement has been reached.

Modes of Delivery: (Check all that apply)

Fully On Campus Fully Online Hybrid Correspondence Credit by Exam

Seminar Visual Media Other Explanation:

Select the Special Designation(s) this course will satisfy, if applicable:

(No Special Designations Selected)

Class Schedule Description:

Calculus-based study of kinematics, Newton's Laws of Motion, dynamics, energy, and momentum in linear and rotational coordinates. Lab Included. Prereq: MATH& 151 with a 2.0 or higher.

Course Prerequisite(s):

MATH& 151 with a 2.0 or higher

Course Corequisite(s):

None

AA Degree Outcomes: (If Applicable)

Critical Thinking, Inquiry and Analysis, and Problem Solving

Explore issues, ideas, phenomena, and artifacts to define and articulate problems or to formulate hypotheses. Analyze evidence to formulate an opinion, identify strategies, develop and implement solutions, evaluate outcomes, and/or draw conclusions.

Quantitative Literacy

Reason and solve quantitative problems in a wide array of contexts and use quantitative evidence to develop and communicate sound arguments.

Technology Literacy

Effectively and critically evaluate, navigate, and use a range of digital technologies.

Student Learning Outcomes:

Computation

Use arithmetic and other basic mathematical operations as required by program of study

Apply quantitative skills for academic and career purposes

Critical Thinking and Problem-Solving

Think critically in evaluating information, solving problems, and making decisions

Technology

Select and use appropriate technological tools for academic and career tasks

Program Outcomes:

SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1		Communication - Read and listen actively to learn and comm
SLO 1.2		Communication - Speak and write effectively for academic and purposes.
SLO 2.1	1, 4	Computation - Use arithmetic and other basic mathematical required by program of study.
SLO 2.2	1, 2, 3, 4, 5, 6	Computation - Apply quantitative skills for academic and car
SLO 3.1		Human Relations - Use social skills to work in groups effectiv
SLO 3.2		Human Relations – Have knowledge of the diverse cultures r our multicultural society.
SLO 4.1	1, 2, 3, 5, 6	Critical Thinking—Think critically in evaluating information, s

		problems, and making decisions.
SLO 5.1	1	Technology - Select and use appropriate technological tools and career tasks.
SLO 6.1		Personal Responsibility – Uphold the highest standards of ac honesty and integrity.
SLO 6.2		Personal Responsibility – Respect the rights of others in the online, and in all other school activities.
SLO 6.3		Personal Responsibility – Attend class regularly, complete as time, and effectively participate in classroom and online disc work, and other class-related projects and activities.
SLO 6.4		Personal Responsibility – Abide by appropriate safety rules in shops, and classrooms.
SLO 7.1		Information Literacy—Independently access, evaluate, and s information from a variety of appropriate sources.
SLO 7.2		Information Literacy – Have knowledge about legal and ethi related to the use of information
SLO 7.3		Information Literacy - Use information effectively and ethica specific purpose.

Course Outcomes / Objectives:

Upon successful completion of the course, students will be able to:

1. Solve problems involving Newton’s laws, energy, and momentum.
2. Discriminate between necessary and unnecessary information when solving problems.
3. Assess the reasonableness of answers to numeric and symbolic computations.
4. Perform calculations using vectors.
5. Represent information in multiple ways, such as graphical, pictorial, mathematical, etc.
6. Identify the largest source of error in an experiment.

Explain the student demand for the course and potential enrollment:

This course is offered four times per year with an enrollment of about 80 students.

Explain why this course is being revised:

The course pre-requisite is being changed.

What challenges, if any, do you foresee in offering this course:

None.

Notations: List any additional course fees or any additional notes (e.g. Permission required)

The two hybrid physics courses offered Fall 2015 are being offered on a pilot basis and will be evaluated at the end of the quarter.

This is to certify that the above criteria have all been met and all statements are accurate to the best of my knowledge.

Faculty involved in originating this program:

Elizabeth Schoene
Print Name

Elizabeth Schoene
Signature

10/9/2015
Date

Dean:

Employee Not Found (jshannon)
Print Name

Employee Not Found
(jshannon)
Signature

3/9/2015
Date

Results of SSCC Curriculum Coordinating Council Findings

Participating Faculty Response and Remarks

- Recommended for approval
- Not recommended for approval
- This course has not yet reached Committee Review

Chairman, Curriculum Coordinating Council:

Print Name

Signature

Date

Vice President for Instruction:

Peter Lortz
Print Name

Peter Lortz
Signature

10/12/2015
Date