

PHY50 : Physics Internship

General Information

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Course Code (CB01) :	PHY50
Course Title (CB02) :	Physics Internship
Department:	PHY
Proposal Start:	Fall 2024
TOP Code (CB03) :	(1902.00) Physics, General
CIP Code:	(40.0801) Physics, General.
SAM Code (CB09) :	Non-Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000345086
Curriculum Committee Approval Date:	03/13/2024
Board of Trustees Approval Date:	04/16/2024
Last Cyclical Review Date:	03/13/2024
Course Description and Course Note:	PHY 50 is a discipline-specific course which allows students to earn from 1-3 units for structured, supervised work on-campus or off-campus in the field of physics under the supervision of a faculty advisor. It is designed to provide students with hands-on, discipline-linked work experience that will extend their knowledge and understanding of career demands in physics. Note: This course is Pass/No Pass only. Note: This course may be taken four times; a maximum of 12 units may be earned. Students must arrange an approved internship prior to enrolling in this class.
Justification:	Mandatory Revision
Academic Career:	<ul style="list-style-type: none">Credit

Academic Senate Discipline

Primary Discipline:	<ul style="list-style-type: none">Physics/Astronomy
Alternate Discipline:	No value
Alternate Discipline:	No value

Course Development

Basic Skill Status (CB08)

Course is not a basic skills course.

Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Pre-Collegiate Level (CB21)

Not applicable.

Grading Basis

- Grade with Pass / No-Pass Option

Course Support Course Status (CB26)

Course is not a support course

Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability

Transferable to CSU only

Transferability Status

Approved

Units and Hours

Summary

Minimum Credit Units (CB07)	1
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	54 - 162
Total Course Out-of-Class Hours	0 - 0
Total Student Learning Hours	54 - 162

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience

Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	3 - 9	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	54 - 162
Studio	0
Total	54 - 162
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
Studio	0
Total	0

Time Commitment Notes for Students

No value

Units and Hours - Weekly Specialty Hours

Activity Name

Type

In Class

Out of Class

No Value

No Value

No Value

No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Prerequisite

Prerequisite or corequisite: Enrollment in appropriate discipline-specific theory or lab course at GCC.

AND

Advisory

ENGL101 - Introduction to College Reading and Composition

OR

Advisory

ESL151 - Reading And Composition V

OR

Advisory

LIB100 - Critical Approaches to Information Research

Entry Standards

Entry Standards

Organize and write thesis-based essays.

Use detailed examples, facts, logical explanations, and other appropriate support for thesis statements.

Summarize, analyze, and synthesize information, express and apply standards for judgment, compare and contrast, and evaluate evidence in order to form and state reasoned opinions.

Gather and organize information through library research.

Demonstrate a command of grammar, diction, syntax, and mechanics sufficient for college level work: control of standard English at the sentence level, with few major errors in grammar and punctuation.

Adhere to the proposed internship facility's standards of practice and ethical code of conduct.

Demonstrate sufficient understanding of discipline-specific terminology, theory and practices acceptable for internship at the host facility.

Course Limitations

Cross Listed or Equivalent Course	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	Lecture
Methods of Instruction	Demonstrations
Methods of Instruction	Field Activities (Trips)
Methods of Instruction	Multimedia
Methods of Instruction	Other

Out of Class Assignments

- Journal (e.g. documentation of duties performed)
- Written assignments (e.g. research of industry-specific educational requirements)

- Final resume
- Final project (e.g. professional portfolio)

Methods of Evaluation

Rationale

Other	Internship facility supervisor’s evaluation of student
Report	Reports (e.g. weekly reports of reflections on internship experiences)
Other	Student self-evaluation (e.g. self-assessment of internship performance)

Textbook Rationale

No required textbooks. Faculty advisor and staff at the host institution may assign readings from discipline-specific sources.

Textbooks

Author	Title	Publisher	Date	ISBN
No Value	No Value	No Value	No Value	No Value

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Demonstrate an understanding of the professional and educational minimum qualifications for employment and advancement within the target career/discipline.

Demonstrate effective professional practices and soft skills of a specific career/discipline.

Demonstrate basic occupational competencies (knowledge, skills and abilities) required for employment in the target career/discipline.

Analyze personal performance of specific skills related to the target career/discipline.

Compose a resumé.

SLOs

Demonstrate basic occupational competencies required for employment in the target career/discipline. Expected Outcome Performance: 70.0

ILOs Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.
Core
ILOs

Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.

PHY explain the difference between evidence and theory in science and cite an example in their explanation
Physics

interface computers and sensors using digital conversion technology and the Data Studio Software package to perform experiments in mechanics, electricity and magnetism, thermodynamics, and chemistry.

use instruments and computers to accurately measure, graph, and analyze physical properties

Course Content

Lecture Content

No value

Laboratory/Studio Content

Internship (54-162 hours TBA)

- On-the job shadowing of current employees
- Data visualization of contemporary physics topics such as climate change or the dark matter hypothesis
- Programming learning tools for use in the classroom
- Designing and/or constructing contemporary physical experiments to within the limits of available resources
- Research involving a selected topic of interest with the goal of professionally presenting results to the GCC community

Total hours: 54-162

Additional Information

Is this course proposed for GCC Major or General Education Graduation requirement? If yes, indicate which requirement in the two areas provided below.

No

GCC Major Requirements

No Value

GCC General Education Graduation Requirements

No Value

Repeatability

Not Repeatable

Justification (if repeatable was chosen above)

No Value

Resources

Did you contact your departmental library liaison?

No

If yes, who is your departmental library liaison?

No Value

Did you contact the DEIA liaison?

No

Were there any DEIA changes made to this outline?

No

If yes, in what areas were these changes made:

No Value

Will any additional resources be needed for this course? (Click all that apply)

- No

If additional resources are needed, add a brief description and cost in the box provided.

No Value