# PHYS 502: MASTER'S PROJECT

# **In Workflow**

- 1. PHYS Committee Chair (mikkel.jensen@csus.edu)
- 2. PHYS Chair (degraff@csus.edu)
- 3. NSM College Committee Chair (mikkel.jensen@csus.edu)
- 4. NSM Dean (datwyler@csus.edu)
- 5. Academic Services (catalog@csus.edu)
- 6. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
- 7. Dean of Undergraduate (gardner@csus.edu)
- 8. Dean of Graduate (cnewsome@skymail.csus.edu)
- 9. Catalog Editor (catalog@csus.edu)
- 10. Registrar's Office (k.mcfarland@csus.edu)
- 11. PeopleSoft (PeopleSoft@csus.edu)

# **Approval Path**

- 1. Fri, 27 Sep 2024 19:56:53 GMT Mikkel Jensen (mikkel.jensen): Rollback to Initiator
- Fri, 31 Jan 2025 19:33:30 GMT Mikkel Jensen (mikkel.jensen): Approved for PHYS Committee Chair
- 3. Fri, 31 Jan 2025 19:38:46 GMT William DeGraffenreid (degraff): Approved for PHYS Chair
- Thu, 06 Feb 2025 23:02:09 GMT Mikkel Jensen (mikkel.jensen): Approved for NSM College Committee Chair
  Wed, 19 Feb 2025 23:53:56 GMT
- Chris Taylor (ctaylor): Approved for NSM Dean

# **New Course Proposal**

Date Submitted: Sat, 11 Jan 2025 01:18:39 GMT

# Viewing: PHYS 502 : Master's Project

# Last edit: Sat, 11 Jan 2025 01:18:38 GMT

Changes proposed by: Rodolfo Barniol Duran (219696192) Contact(s):

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Michael Ray	ray@csus.edu	916-278-6501
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#### **Catalog Title:**

Master's Project

#### **Class Schedule Title:**

Master's Project

### Academic Group: (College)

NSM - Natural Sciences & Mathematics

### Academic Organization: (Department)

Physics and Astronomy

Will this course be offered through the College of Continuing Education (CCE)? No

Catalog Year Effective: Fall 2025 (2025/2026 Catalog)

### Subject Area: (prefix)

**PHYS - Physics** 

# Catalog Number: (course number)

Course ID: (For administrative use only.) TBD

Units:

1-6

Is the ONLY purpose of this change to update the term typically offered or the enforcement of existing requisites at registration? No

In what term(s) will this course typically be offered? Fall, Spring

Does this course require a room for its final exam?

No, final exam does not require a room

Does this course replace an existing experimental course? No

This course complies with the credit hour policy:

Yes

#### Justification for course proposal:

Physics 502, is one of the possible culminating experiences proposed as part of a new Master of Science in Physics. The MS program is designed to allow flexibility for students to prepare for PhD programs or to prepare for a career in teaching, industry or government. The MS in Physics will provide a locally accessible pathway for students interested in pursuing advanced physics degrees. Diversity in physics will be increased by supporting the CSUS community of students at the graduate level. Many of our underrepresented and low-income students are helping to support families while studying and would be unable to pursue graduate education outside of the Sacramento region. Across the country women and underrepresented groups face barriers at entry and at each step throughout their physics careers.

#### Course Description: (Not to exceed 90 words and language should conform to catalog copy.)

Master's project: Culminating experience for the master's program, providing an individual research project under the supervision of a faculty member. Projects may be laboratory, computational, theoretical, or any combination. Should be taken in the final semester prior to the completion of all requirements for the degree.

#### Are one or more field trips required with this course?

No

Fee Course?

No

Is this course designated as Service Learning?

No

Is this course designated as Curricular Community Engaged Learning?

No

Does this course require safety training?

No

Does this course require personal protective equipment (PPE)? No

**Does this course have prerequisites?** Yes

#### Prerequisite:

Advancement to candidacy and permission of the graduate coordinator.

#### **Prerequisites Enforced at Registration?** Yes

**Does this course have corequisites?** No

**Graded:** Thesis in Progress

Approval required for enrollment? Department Approval

Course Component(s) and Classification(s): Thesis Research

#### **Thesis Research Classification**

S3/CS#25 - Practice Teaching/Workstudy/Thesis Project/Independent Study (S-factor=.5 WTU per student enrolled) Thesis Research Units

1-6

Is this a paired course? No

Is this course crosslisted?

No

Can this course be repeated for credit?

No

Can the course be taken for credit more than once during the same term? No

# Description of the Expected Learning Outcomes and Assessment Strategies:

List the Expected Learning Outcomes and their accompanying Assessment Strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers). Click the plus sign to add a new row.

	Expected Learning Outcome	Assessment Strategies
1	Critique primary sources and determine their relevance to a specific project.	Written literature review
2	Create a plan to carry out a research project including how the work will be performed, and a timeline of when the work will be done.	Written plan and timeline discussion
3	Analyze results of the project.	Oral presentations or written reports.
4	Use results to form conclusions about the project that are presented in a Sac State Scholars Project Abstract.	Written abstract following Office of Graduate Studies requirements.
5	Communicate the results of their project through papers or professional presentations.	Oral presentations or written reports.

#### Attach a list of the required/recommended course readings and activities:

PHYS 502 ResearchProject.docx

#### For whom is this course being developed?

Majors in the Dept

# Is this course required in a degree program (major, minor, graduate degree, certificate?)

No

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?

No

Will there be any departments affected by this proposed course?

No

I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.

I/we agree

## **University Learning Goals**

Graduate (Masters) Learning Goals:

Disciplinary knowledge Communication Critical thinking/analysis Information literacy Professionalism

Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)? No

Is this a Graduate Writing Intensive (GWI) course?

No

#### **Reviewer Comments:**

Mikkel Jensen (mikkel.jensen) (Fri, 27 Sep 2024 19:56:53 GMT): Rollback: additional details / examples on format and assessment

Key: 14763