

# PHYS 4951 Capstone II. Spring 2025

Regular Class Home page: <http://jpastro.net/PHYS4951/syllP4951S25.html>

Department: **Physics and Astronomy**

Class time and place: Fridays, 2:00-2:50 am, SA 111

Section: 1 (CRN=34241)

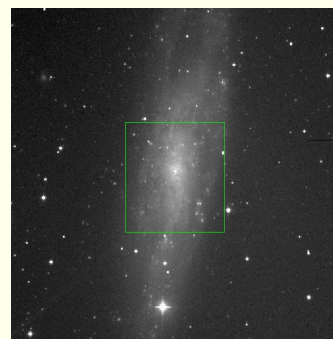
Instructor: **Dr. Jason Pinkney**

Office hours in 108A Science Annex at [these times](#): 12-2 pm on T, 2-3 pm on M,W, and 1-2 pm on F.

Email [j-pinkney@onu.edu](mailto:j-pinkney@onu.edu) or call 419-772-2740.

Instructor's Home page: <https://jpastro.net/>

Credit hours: 2



NGC

247

## NEW STUFF (Watch this spot for new links, data, etc.)

[NED results for NGC 247](#)

[HyperLeda galaxy database](#)

## PHYS 4951 Course Description:

Written and oral presentation of a Capstone Research Project. The Research Project is typically written in the form of a scientific manuscript and presented during a formal seminar. This course will be the culmination of the Capstone Experience.

**Course Attributes:** Effective Communication and Writing, Critical and Creative Thinking

**Prerequisites:** Undergraduate (Semester) level PHYS 3951, Minimum grade of D.

**Text:** No textbook required. We depend on online resources, such as scientific papers, for the research.

## Course Goals, Objectives, and Learning Outcomes

Students should be able to:

- Think and express themselves clearly;
- Solve problems analytically and creatively;
- Listen, understand, and work with others;
- Demonstrate technological knowledge and skills;
- Practice truthful and ethical behaviors;
- Demonstrate knowledge, skills, and values related to the course

## Tentative Calendar

| Week of    | Activity     | Progress     |
|------------|--------------|--------------|
| 1/22,24    | Research     |              |
| 1/27,29,31 | Research     |              |
| 2/3,5,7    | Research     | Start poster |
| 2/10,12,14 | Research     |              |
| 2/17,19,21 | Research     |              |
| 2/24,26,28 | Research     |              |
| 3/3,5,7    | Research     |              |
| 3/10-14    | SPRING BREAK |              |

|             |                               |                                    |
|-------------|-------------------------------|------------------------------------|
| 3/17,19,21  | Research                      |                                    |
| 3/24,26,28  | Research                      |                                    |
| 3/31,4/2,4  | Research                      |                                    |
| 4/7,9,11    | SRC 4/8. EGLS Meeting 4/11/25 | Poster presentation at one or both |
| 4/14,16     | Research/ EASTER Fri          | Start PPT                          |
| 4/21,23,25  | Research - creating PPT       |                                    |
| 4/28,30,5/2 | Research - creating PPT       | Capstone presentation              |
| 5/5,7,9     | Research - creating PPT       | Capstone paper due (finals week)   |

### Grading:

| Component               | Percent |
|-------------------------|---------|
| Poster Presentation     | 50%     |
| Powerpoint presentation | 25%     |
| Capstone paper          | 25%     |

Your final letter grade is assigned roughly as follows:

| < 55 | 55-70 | 70-80 | 80-90 | 90-100 |
|------|-------|-------|-------|--------|
| F    | D     | C     | B     | A      |

I will not grade any "harder" than the above. If the capstone paper is postponed to the following semester, then the grade will be 50% poster and 50% Powerpoint presentation.

### Other Course Policies

**Attendance** is at the weekly meetings is important for making progress on the capstone project. Let me know in advance (e-mail is good) if you plan to miss for a **valid reason** (e.g. your team is on the road, you are sick, you have a family emergency). If you miss a quiz or exam because of an emergency, let me know as soon as possible, and provide proof of the emergency. "Proof" may consist of the name and phone number of some parent or authority figure who knows your

**Independent work** is also very important for making progress on the capstone. This means working (either in the lab or at home) on the research outside of the meeting times. The student is expected to do at least 2 hours per week of independent work in addition to the meeting times, at least until completion of the project.

**Cancelled Class.** If a class has to be cancelled due to weather or one of us being absent, I am required to do something to advance the curriculum. I will notify the student about what to do through an email. I will most likely assign research tasks to be done independently.

**Common syllabus information.** Here is [common course information](#) which applies to all courses. This includes the covid Safety Plan, Grading Modes, Readmission, Repeat Policies, and more.

### Other Mandatory Syllabus Information:

|                                     |   |                          |
|-------------------------------------|---|--------------------------|
| <a href="#">Disability services</a> | <a href="#">Academic Honesty</a><br>(Append. F, p. 100) | <a href="#">Title IX</a> |
|-------------------------------------|---|--------------------------|