



## Stars and Galaxies (Lab) – PHYS 1103.088 (Online)

Course Syllabus: Spring 2020

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*“Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed.”*

**Instructor: Dale Loughmiller, Adjunct Professor of Physics**

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| Office Hours | Monday | Tuesday | Wednesday | Thursday | Friday | Online    |
|--------------|--------|---------|-----------|----------|--------|-----------|
|              | Online | Online  | Online    | Online   | Online | Every Day |

***This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.***

*Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.*

### **Course Description:**

This laboratory-based course accompanies PHYS 1303 Stars and Galaxies. Laboratory activities will reinforce the study of solar, galactic, and universal aspects of astronomy including stellar evolution, black holes, and current cosmological concepts. This course will not satisfy a core curriculum requirement, but may satisfy a degree requirement. One credit hour.

**Prerequisite(s):** TSI complete status

**Corequisite(s):** PHYS 1303 Stars and Galaxies

### **Student Learning Outcomes:**

Upon successful completion of this course, students will

- 1103.1** Recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry used in modern astrophysics.
- 1103.2** Communicate observations and interpretations clearly through written communication.
- 1103.3** Use basic laws of astronomy to solve assigned tasks.
- 1103.4** The ability to translate, interpret, and extrapolate scientific theory governing the formation and evolution of stars.
- 1103.5** The ability to translate, interpret, and extrapolate scientific theory governing the formation and evolution of galaxies and the universe.

## Evaluation/Grading Policy

Homework Assignments: 100%

A = (90% - 100%)

B = (80% - 89%)

C = (70% - 79%)

D = (60% - 69%)

F = (< 60%)

Test/Exams:

There will be quizzes that review each chapter's labs. These quizzes will be counted as homework grades with equal weight to the labs. There will not be any major exams.

**Required Instructional Materials:** Kay, Palen, and Blumenthal. *Starry Night Workbook, 5<sup>th</sup> edition*.

**Publisher:** W. W. Norton & Company

**ISBN Number**-978-0-393-60256-7

Note: The NTCC Bookstore link is at [www.ntcc.edu](http://www.ntcc.edu)

**Optional Instructional Materials:** N/A

### Minimum Technology Requirements:

Access to a working Windows based computer (Starry Night Software will not work on a MAC, tablet, or Chromebook.) with stable internet access.

### Required Computer Literacy Skills:

- 1) Communicate via email;
- 2) Saving and reloading saved files;
- 3) Navigate Blackboard to access posted materials and assignments.

### Course Structure and Overview:

This is a 16-week online course where students are required to complete Starry Night activities provided via the required workbook and via the Blackboard Learning Management System. A typical week involves completing a lab activity using the Starry Night software and workbook. Student will upload a completed Microsoft Word worksheet to blackboard and complete a chapter quiz to review concepts learned in the lab.

### Communications:

Emails will be responded to within 24 hours. Posts in the Discussion Forum, "Virtual Office" will be monitored by the instructor. Responses by the instructor will be within 72 hours following the post. Students are expected to abide by Netiquette rules when communicating online. See this link for details: [www. https://coursedesign.colostate.edu/obj/corerulesnet.html](https://coursedesign.colostate.edu/obj/corerulesnet.html).

The college's official means of communication is via your campus email address. Your instructors will use your campus email and Blackboard to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

**Institutional/Course Policy:**

No late work will be accepted without prior approval by the instructor. It is the student's responsibility to check Blackboard for important information/announcements regarding the course. Students should be working on course material via Blackboard every week. Do not wait until the last minute to complete and submit assignments in case of technology issues.

**NTCC Academic Honesty/Ethics Statement:**

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information.

**ADA Statement:**

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to special population page on the NTCC website.

**Family Educational Rights and Privacy Act (FERPA):**

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

**Tentative Course Timeline (\*note\* instructor reserves the right to make adjustments to this timeline at any point in the term):**

## Course Schedule: (Subject to Change)

| <u>Weeks</u>              | <u>Topics</u>         | <u>Assignments</u>  | <u>Due Dates</u><br>(Due by 11:59pm CST) |
|---------------------------|-----------------------|---|--|
| Week 1: 1/21/20 – 1/26/20 | Introduction to Class | Syllabus acknowledgement<br>Buying Workbook<br>Installing Starry Night Software | 1/26/2020                                |
| Week 2: 1/27/20 – 2/2/20  | Chapter 16            | Chapter 16 Lab(s) and Quiz  | 1/30/2020                                |
| Week 3: 2/3/20 – 2/9/20   | Chapter 17            | Chapter 17 Lab(s) and Quiz  | 2/6/2020                                 |
| Week 4: 2/10/20 – 2/16/20 | Chapter 18            | Review Chapter Materials  | 2/13/2020                                |
| Week 5: 2/17/20 – 2/23/23 | Chapter 19            | Review Chapter Materials  | 2/20/2020                                |
| Week 6: 2/24/20 – 3/1/20  | Chapter 20            | Chapter 20 Lab(s) and Quiz  | 2/27/2020                                |
| Week 7: 3/2/20 – 3/8/20   | Chapter 20            | Chapter 20 Lab(s) and Quiz  | 3/5/2020                                 |
| Week 8: 3/9/20 – 3/15/20  | Chapter 21            | Chapter 21 Lab(s) and Quiz  | 3/12/2020                                |

|                            |                            |                                 |           |
|----------------------------|----------------------------|---------------------------------|-----------|
| <b>3/16/20 – 3/22/20</b>   | <b>Happy Spring Break!</b> |                                 |           |
| Week 9: 3/23/20 – 3/29/20  | Chapter 21                 | Chapter 21 Lab(s) and Quiz      | 3/26/2020 |
| Week 10: 3/30/20 – 4/5/20  | Chapter 20 & 22            | Chapter 20 & 22 Lab(s) and Quiz | 4/2/2020  |
| Week 11: 4/6/20 – 4/12/20  | Chapter 20 & 22            | Chapter 20 & 22 Lab(s) and Quiz | 4/9/2020  |
| Week 12: 4/13/20 – 4/19/20 | Course and Lab Review      | Course and Lab Review           | 4/16/2020 |
| Week 13: 4/20/20 – 4/26/20 | Course and Lab Review      | Course and Lab Review           | 4/23/2020 |
| Week 14: 4/27/20 – 5/3/20  | Course and Lab Review      | Course and Lab Review           | 4/30/2020 |
| Week 15: 5/4/20 – 5/10/20  | Course and Lab Review      | Course and Lab Review           | 5/7/2020  |
| Week 16: 5/11/20 – 5/21/20 | Course and Lab Review      | Course and Lab Review           | 5/12/2020 |