# Phase IIB CCN TEMPLATE

## Background

- This CCN Course Template was developed by Astronomy discipline faculty representatives from the California Community Colleges, California State University, University of California and independent colleges and universities during October-December 2024, starting with local course outline of record and syllabi information provided by intersegmental faculty during the pre-convening survey process.
- Development of the CCN Course Template was facilitated by ASCCC with advisory input from segment articulation officers and transfer experts.
- Approved and Submitted to the Chancellor's Office: June 2025

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|---|---|
| **Subject:** Astronomy | **Subject Code:** ASTR |
| **Proposed Course Number (Identical):** C1001L | |
| **Course Title (Identical):** Introduction to Astronomy Lab | |
| **Catalog/Course Description**<br><br>**Part 1 (Identical and Required):**<br>This laboratory course reinforces fundamental principles and concepts of astronomy by applying the scientific method through experiments, observations, and/or simulations.<br><br>**Part 2 (Optional Expanded Description, Local College Discretion):** | |

**Minimum Unit Threshold | 1.0 Semester Units**

Unit amounts must adhere to the established minimum.

**Prerequisites (Identical):** None

**Co-Requisites (Identical):** Completion of or concurrent enrollment in ASTR C1001 or other locally approved astronomy lecture course

**Other Limitations on Enrollment (determined locally)**

**Advisories/Recommended Preparation (determined locally)**

**Course Content**

**Part 1: Required Topics (Identical):**

This is a lab only course.

**Part 2: Optional Expanded or Additional Topics (optional):**

## Laboratory Content

**Part 1: Required Topics (Identical):**

Content will include:

1. Celestial sphere
2. Orbits and Kepler's Laws
3. Spectroscopy
4. Lunar properties
5. Telescopes and optics
6. Hertzsprung-Russell Diagram
7. Sun features
8. Deep sky objects
9. Cosmic distance ladder

**Part 2: Optional Expanded or Additional Topics (optional):**

## Course Objectives/Outcomes

**Part 1 (Identical and Required):**

*At the conclusion of this course, the student should be able to* (Identical and Required):

Collect, analyze, and interpret astronomical data to draw and communicate valid scientific conclusions.

**Part 2 Optional objectives/outcomes (optional):**

*At the conclusion of this course, the student should be able to:*

## Methods of Evaluation

**Part 1 (Identical and Required):**

Examples of potential methods of evaluation used to observe or measure students' achievement of course outcomes and objectives could include but are not limited to quizzes, practicums, laboratory activities, laboratory reports, projects, research demonstrations, etc.

Methods of evaluation are at the discretion of local faculty.

**Part 2 List Additional Methods of Evaluation (Optional):**

**Representative Texts, Manuals, OER, and Other Support Materials:**

**Part 1 (Identical and Required):**
Texts used by individual institutions and even individual sections will vary.

- Fraknoi, A. (2016 & Web 2021). A Compilation of Free Laboratory Activities for Astronomy 101 Courses. OER: OER Commons. Institute for the Study of Knowledge Management in Education. https://www.merlot.org/merlot/viewMaterial.htm?id=1374772
- Tuttle, S. (2016 & Web 2024). Distant Nature: Astronomy Exercises. OER: OER Commons. Institute for the Study of Knowledge Management in Education. https://oercommons.org/authoring/17181-distant-nature-astronomy-exercises
- Simulation Curriculum Corporation. (2024). Starry Night College Astronomy Lab Manual. 8th ed.: Simulation Curriculum Corp.
- Locally developed lab manual

**Part 2 List Sample Textbooks, Manuals, or Other Support Materials (optional):**

**Date Approved:**

June 16, 2025, following ASCCC facilitation of template development process, including engagement of faculty discipline representatives from California Community Colleges, California State University, University of California, and independent colleges and universities and advisory input from segment articulation officers and transfer experts.