



DISTANCE EMERGENCY EDUCATION ADDENDUM

COURSE ID:	Astronomy 125
DEPARTMENT:	Physics/Astronomy
SUBMITTED BY:	A. Tolstova, H. Crogman
DATE SUBMITTED:	04/29/2020

For additional resources on completing this form, please visit the DE Website:
www.valleycollege.edu/onlinefacultyresources

1. Please select the distance education method that describe how the course content will be delivered in an emergency situation. Check ALL methods that will be used for offering this course, even if previously approved.

- FO – Fully Online
- PO – Partially Online
- OPA – Online with In-Person Proctored Assessments
- FOMA – Fully Online with Mutual Agreement

2. In what way will this course, being offered in distance education format for emergency purposes only, meet the needs of the campus? (Ex: Student Access, Campus Strategic Plan, Campus Mission Statement, Online Education Initiative (OEI), Student Equity, Student Needs). Please be specific.

This Astronomy 125 course is the companion course to ASTRON 120, Introduction to Astronomy. Laboratory work provides a deeper understanding of topics discussed in the astronomy lecture. To graduate with a specialization in Astronomy, students must complete the course. The Astronomy 125 course is an Associate Degree Applicable Course and credit transfers to CSU and UC. The course is designed to meet the science requirements for different majors.

Commented [WH1]: Good demonstration of need.

3. Will this course require proctored exams?

- No
- Yes - If yes, how?

4. How will the design of this course address student accessibility? Are you including any of the following?

- Captioned Videos
- Transcripts for Audio Files
- Alternative Text for Graphics
- Formatted Headings
- Other – If other, please explain.



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5. Provide a specific example of how the instructor will provide synchronous office hours for distance education students? (Ex: Online Conference Tool, Cranium Classroom, Zoom, Pisces, Skype, etc.)

Instructors will hold their synchronous office hours using Zoom meetings and schedule the online meetings through Canvas and ConferZoom. During these Zoom meetings, instructors may also use breakout rooms to split students into separate sessions. Instructor will also clearly state the synchronous office hours in the syllabus, which will be published on Canvas.

For those individuals, who need extra help, instructors may offer one-on-one Zoom meetings. Instructor may use a drawing tablet or the Zoom white board to explain the concepts and answer students' questions.

Commented [WH2]: Excellent to include.

6. Provide a specific example of how this course's design ensures regular and effective instructor-student contact? (Ex: Threaded discussion forums, weekly announcements, instructor prepared materials, posting video and audio files, timely feedback on exams and projects, synchronous online office hours, synchronous online meetings, synchronous online lectures, etc.)

Instructors will remind their students that the course is fully online and create a Welcome letter approximately one week before the course begins. Instructor will create Modules and use this as "Home Page" on Canvas. Instructors will use Modules to organize the course content, inform students about week's schedule, and as a reminder about upcoming assignments.

After students review the lecture and watch online videos on Canvas, students will be required to participate in a thread discussion where they must express their opinion and comment on at least two other students post.

There will be three online exams and a final.

Commented [WH3]: Pre-course instructions = good!

Commented [WH4]: This clearly demonstrates regular and effective instructor-student contact.

<https://www.valleycollege.edu/online-classes/faculty-resources/reg-effective-contact.php>

7. Provide a specific example of how this course will ensure regular and effective student-student contact? (Ex: Threaded discussion forums, assigned group projects, threaded discussions, Notebowl, peer-to-peer feedback, synchronous online meetings, etc.)

Student will converse on Canvas threads. They will also be given bi-weekly projects, which they will have to complete in groups. They will be invited to download the Zoom app and record their meetings (recordings will be submitted on Canvas) in order to ensure that all participate in the making of the project assignment. They will ensure that they communicate, see each other, and work together. A troubleshooting Canvas chat will be open for groups to come and ask their instructor questions when they'll encounter questions/problems.

Groups will also grade each other's projects anonymously and give each other feedback on assignment projects.

Commented [WH5]: This clearly demonstrates regular and effective student-student contact.

8. Describe what students in this online version of the course will do in a typical week on this class. Include the process starting after initial log in.

Student will log in, go through the lecture by playing the ppt slide of the week and watch videos on the various topics. They will then finish a worksheet after each lecture. At the end of the week they will be invited to participate



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in a couple of interactive and dynamic discussion threads of topics covered in lectures in which instructors will intervene to get the discussion going and stimulate critical thinking. Once a week there will be a face to face meeting on Zoom, students will play games (like Kahoot) related to the lectures covered and summarize what has been discussed. This will be an opportunity for extra credit for those who will make meaningful contribution to the interaction. Each students will be called out to answer questions, and will be invited to send in their questions in advance.

Commented [WH6]: Will this be required for points/credit? If so, where will this synchronous requirement be stated?

9. Provide a sample statement that could be included in the syllabus for this course that communicates to students the frequency and timeliness of instructor-initiated contact and student feedback.

The syllabus will outline all semester activities and schedules.

- This course will meet online via ConferZoom on Canvas during the lab hours. ConferZoom allows students join in with audio, video, or just text. Students will learn and participate live and remotely.

A "Typical week" section will be added with the following:

A TYPICAL WEEK

1. Read your book chapter(s) for the week.
2. Listen to the video lecture on Canvas, and participate in each threads (minimum one participation and one comment on a classmate's interaction).
3. After lecture complete the worksheet and submit.
4. Take the quiz on Canvas.
5. Attend the discussion at the end of the week.
6. Connect with your group on Zoom once a week to build your bi-weekly project (remember to record your meeting and submit it on Canvas).
7. Keep an eye on the syllabus each week (it changes often, and quizzes, projects, exams, and reading for the week are announced), check scheduled assignments to be on top of your grade.
8. If you miss any assignment for justified cause, you must catch up during that same week. No make ups will be accepted after the Sunday of that due week, 11:59pm.

10. Provide a specific example of how regular and effective student-student interaction may occur in this online course.

Students will be required to attend group zoom meetings weekly (to complete group assignments specifically designed to get everyone involved in the group), these meetings will be recorded which will allow instructors to take attendance, monitor appropriateness of the conversation and students' thinking process and progress; this is outside their regular other communications to get work done. They will be given a list of interactive apps they can use like Zoom, VOXER, .../... to talk to each other. They will also be required to grade one group's project, which will again require them to meet to debate.

There will also be thread discussions with requirements to post and comment on others' posts. Guidelines and templates will be given to avoid standard short responses such as "I agree".



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11. Provide a specific example of how regular and effective instructor-student interaction may occur in this online course.

Instructors will begin each online lesson with a short, student-friendly, statement indicating the goal of the lesson. Instructors will always check for students' understanding by asking questions, will differentiate instruction based on students' learning and needs.

To be effective regular feedback will be provided daily. Engaging students in the discussion board will facilitate instructor-student interaction. Students will be asked to write three things they have learned and give three question they have on the topics being discussed. A zoom link will be provided where the instructor will provide feedback on student questions.

Commented [WH7]: Daily? Wow.

12. Does this course include lab hours? No Yes – If yes, how are you going to accommodate the typical face to face activities in an online environment?

The Voyager software for students per \$25 each and will be purchase by Department/ students. The course will require students to have access to a computer.

The first two labs will be a PHET simulations for student to understand lenses and colors which are essential for astronomy. Lab projects will be uploaded in canvas for each lab. Short videos will be posted speaking about each lab.

Student will contact professor through Canvas to help with problem encounter in the software.

A zoom meeting with the lab class once a week during the laboratory time. Quizzes will be given before each lab. Lab final will be given at the end of the course.

13. How will you accommodate the SLO and Course Objectives in an online environment?

The Physics/Astronomy Department will ensure that outcome assessment are ongoing and used to improve students learning and achievement in even in the online environment. Additionally, there will be an evaluation of SLOs as usual.

Lecture Class

1. Students will demonstrate an understanding of basic astronomical concepts and phenomenology, and of their related physical concepts by correctly describing and identifying these concepts and phenomena.

Each lecture and videos are designed to address this SLO. Quizzes, tests, and worksheets will be used as way to measure effectiveness in meeting this SLO.

2. Given a particular astronomical scenario, by applying the basic scientific principles students will correctly describe the outcomes of these scenarios by the proper application of the concepts of physical law and astronomy.

Each lecture and videos are designed to address this SLO. Discussion thread will be used as way to measure how well this SLO is being met, through intellectual and practical checkpoints throughout such as asking students to make predictions.

3. Students will demonstrate an understanding of the apparent motions of celestial objects in the night sky by correctly describing and identifying these motions.

Each lecture and videos are designed to address this SLO. Quizzes, tests, and worksheets will be used as way measure effectiveness in meeting this SLO.



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Lab Class

4. Given a particular laboratory astronomical and/or physical objective, students will correctly construct physical systems, learn to use and manipulate laboratory apparatus, and correctly make and analyze measurements of these physical systems.

Each lab is designed to address this SLO. Quizzes, and lab instructions are designed to measure effectiveness in meeting this SLO.

5. Given data from internet-based investigations, computer simulations, or previously-performed investigations in astronomical and/or physical systems, students will correctly analyze measurements of these systems.

Each lab is designed to address this SLO through the laboratory software Voyager. Quizzes, and lab instructions are designed to measure effectiveness in meeting this SLO.

6. Students will become familiar with the basic principles and operation of various astronomical instruments by hands-on laboratory experience.

lab videos and PHET simulation are used as a way to measure effectiveness in meeting this SLO.

14. Are modifications needed to SLOs or Course Objectives in order to teach this course in the online modality?

No Yes – If yes, please explain the changes needed.

(It is advised that if you are changing course content or objectives that you speak with the Curriculum Co-Chair or Articulation Officer for guidance moving forward.)

To be completed by a member of the Curriculum Committee Review Team:

CURRICULUM CHAIR REVIEWED:		<input type="checkbox"/> YES <input type="checkbox"/> NO
DE REVIEW:		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
CURRICULUM COMMITTEE DIVISION REPRESENTATIVE REVIEWED:		<input type="checkbox"/> YES <input type="checkbox"/> NO

Mary: Wow. This should be a model DE addendum. Looks good to me.

Maggie: 100% completely agree with Mary!