San Bernardino Valley College

DISTANCE EDUCATION EMERGENCY ADDENDUM

COURSE ID:	**Physics 204**
DEPARTMENT:	**Physics/Astronomy/Engineering**
SUBMITTED BY:	**Anna Tolstova**
DATE SUBMITTED:	**10/01/2020**

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

Title 5 section 55002 requires all courses, or any portion of a course conducted through distance education include regular effective contact between instructor and student. In addition, the Accrediting Commission for Community and Junior Colleges (ACCJC) requires that Distance Education courses ensure that there is "regular substantive interaction" between instructor and student. SBVC's Distance Education Committee has stipulated that the requirements within Title 5 for "regular effective contact" is functionally equivalent to ACCJC's requirement for "regular substantive interaction."

Access and communication are equity issues. This form will clarify how these are being addressed in the online course format.

1. **Please select the distance education method that describe how the course content will be delivered. These definitions have been pulled from the ASCCC Resolution 09.06 of Spring 2019.**
   Check ALL methods that will be used for offering this course, even if previously approved.

   ☒ FO – Fully Online: Instruction involving regular and effective online interaction that takes place synchronously or asynchronously and is supported by online materials and activities delivered through the college's learning management system and using other required materials. All approved instructional contact hours, including online proctored assessments, are delivered through these online interactions. No in-person assessments are required.

   ☒ PO – Partially Online: Instruction involving regular and effective online interaction for some portion of the approved contact hours that takes place synchronously or asynchronously and is supported by materials and activities delivered in person and online through the college's learning management system, and through the use of other required materials. This would include periodic synchronously scheduled meetings for lecture, lab or testing where the instructor and student are together. Any portion of a class that is delivered online must follow a separate approval process. The approved online portion must meet the regular and effective contact regulation. The class schedule indicates when and where the in-person meetings occur and how many hours are to be completed online. Any scheduled or synchronous online meetings should also be included in the schedule of courses.

   ☐ OPA – Online with In-Person Proctored Assessments: Instruction involving regular and effective online interaction in which all instruction takes place synchronously or asynchronously and is supported by online materials and activities delivered through the college's learning management system, with in-person proctored assessments. All assessments are offered at approved locations proximal to the student and over a designated range of dates and times. No activities or assessments may be scheduled at a designated time or location.

2. **In what way will this course, being offered in distance education format, 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.**

The Physics 204 course is a third course of the calculus based physics series covering thermodynamics, fluids, optics, and modern physics. This course is designed to satisfy the lower division physics requirement for majors in physics, engineering, astronomy, chemistry, geology, computer science, and mathematics. The

course is an Associate Degree Applicable Course and credit transfers to CSU and UC. The Physics 204 class is a prerequisite for the Physics 210 course.

3. If OPA is marked above, indicate how proctored exams and assessments will be conducted.

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.

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 these online meetings through Canvas and ConferZoom. During these Zoom meetings, instructors may also use breakout rooms to split students into separate sessions. Instructors 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. Instructors may use a drawing tablet or the Zoom white board to explain the concepts and answer students' questions.

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 have asynchronous/synchronous online meetings for lectures, office hours and lab sessions through Zoom, and schedule these meetings through ConferZoom on Canvas. Instructors will remind their students that the course is fully online and create a Welcome letter approximately one week before the course begins. Instructors 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. Instructors may import/download a course template from our website and update it for their course.

Instructors will post lecture notes, Power Point Slides, files, recorded videos, and assignments on Canvas, provide online resources. Instructors will record lecture and lab sessions and post the videos or links of the recording meetings on Canvas. Instructors may use a drawing tablet or Zoom white board to explain the course concepts.

After students review the lectures, students will be required to participate in threaded discussion forums, where they must express their opinion and comment on at least two other students' posts.

Instructors will create online Exams on Canvas, Quizzes, and allow students to see their grade for the exam and all the questions, including their answer choice and the correct answers after they submit the exam. Instructors may also discuss the exam problems during a synchronous lecture session or office hours to provide additional feedback. There will be four online exams and a final.

Instructors will use physics laboratory simulations and educational exercises, provide and post a step-by-step instructional guide/file, provide a recorded lab session for virtual labs on Canvas.

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, peer-to-peer feedback, synchronous online meetings, etc.)**

Instructors will provide clear expectations, timely constructive feedback to students about assignments and questions, and clear instructions on Canvas, Modules.

Students will converse on Canvas threads. They will be given bi-weekly projects/discussions, which they will have to complete in groups. They may 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.

Instructors will contact students, who are not participating by e-mailing them. Instructors will encourage faculty-to-students and student-to-students interaction by using Icebreaker activities, Polls, Breakout Room, and threaded discussion forums. For the Icebreaker activities, instructors will compose an initial icebreaker discussion prompt and will engage their students in a reflective discussion. For Breakout Rooms, a leader will be assigned in each room.

During the Peer-to-Peer sessions, students will share their screen and work together to improve their understanding and learning. Instructors will join groups, participate in the students' discussions when the need arises, and modify these in-class activities as necessary.

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

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.**

San Bernardino Valley College

DISTANCE EDUCATION EMERGENCY ADDENDUM

Instructors will use Modules as a "Home Page" on Canvas. Students will be informed about week schedule, assignments, and announcements through Modules.

Instructors will begin each online class with a short, student-friendly, statement indicating the goal of the lesson. During the online lectures, instructors will use Power Point Slides, a drawing tablet or Zoom white board to explain the course concept. Instructors may split their students into separate breakout rooms for small discussions during synchronous sessions. Instructor will also record the meetings and post the files on Canvas in Modules, so students can review these meetings.

Students will have a weekly online quiz, which they can access on Canvas. The reminder about the quiz will be on Modules. After students will submit their quiz, they will be able to see their grade and all the questions, including their answer choice and the correct answers.

At the end of a week they will be invited to participate in a couple of interactive and dynamic threaded discussion forums of topics cover in lectures in which instructors will intervene to get the discussion going and stimulate critical thinking. Once/two times a week there would be a face to face meeting on Zoom, students will play games or (like Kahoot) related to the lectures covered and summarize what has been discussed. Instructors also will create Icebreaker activities and threaded discussion forums for their student.

During the online labs, instructor will use physics laboratory simulations and educational exercises. Students will be able to manipulate with these simulations and interact with them by dragging objects or changing the data. Instructors will provide a step-by-step instructional guideline for the lab and post the file on Canvas. Using data from previously performed lab experiments, students will create their lab report and will submit it to their instructor.

A TYPICAL WEEK INSTRUCTIONS

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 and check out the Modules 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, 11:59 pm.

For instance:

Weekly Course Update: Week Five

Greetings Students!

We are now at Week Five!
This week assignments include:

1. Exam #1 **Due on Wednesday 09/16/20 at 11:59 pm**
2. **Extra Points exam/quiz. Due on Sunday 09/20/20 at 11:59 pm**

- You will have two multiple-choice questions.
- To find the extra points exam/quiz, go to Modules, find the Module "Week 5: 09/14 - 09/16/20", locate "Extra Points Exam 1" and click it.
- Read each question and answer choice carefully and choose the **ONE** best answer.
- No time limit for the Extra Points/Quiz. **Due on Sunday 09/20/20 at 11:59 pm**
- Two attempts
- You will be able to see the correct answers only after the last attempt
- Will keep the highest score, maximum 10 points
- I will update the exam #1 score manually

3. **Quiz 2, Forces. Due on Sunday 09/20/20 at 11:59 pm.**
   - You will have two multiple-choice questions.
   - To find the quiz, go to Modules, find the Module "Week 5: 09/14 - 09/16/20", locate "Quiz 2, Force" and click it.
   - Read each question and answer choice carefully and choose the **ONE** best answer.
   - No time limit for the Quiz. **Due on Sunday 09/20/20 at 11:59 pm**
   - Two attempts
   - You will be able to see the correct answers only after the last attempt
   - Will keep the highest score, maximum 10 points

4. **Discussion 2. Due on Sunday 09/20/20 at 11:59 pm**
   - To find the discussion, go to Modules, find the Module "Week 5: 09/14 - 09/16/20", locate "Discussion 2, Force" and click it.
   - Follow the instructions.

That's all for now!

Have a wonderful week,
Prof. Tolstova

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.

This course will meet fully online We will use the Canvas Learning Management System for this course, everything for your success will be found there. To access the course please use the link https://sbccd.instructure.com. If you have trouble to log in to the course, here is the information to whom you may contact.

	Student Services	
Canvas 24/7	(877) 703-3736	Support for Students, Canvas
Tuesdays from 8:00 am to 5:00 pm by phone	(909) 384-4443	Disability Services dsps@valleycollege.edu
Monday, Wednesday, Thursday, and Friday by e-mail	dsps@valleycollege.edu	Disability Services dsps@valleycollege.edu

Lecture hours:

San Bernardino Valley College

DISTANCE EDUCATION EMERGENCY ADDENDUM

I will conduct lectures via ConferZoom on Canvas two times per week: Monday and Wednesday, from 9:35 to 10:50 am (for instance). During the synchronous lecture sessions, if you have any questions, please raise your hand or post a comment in the chat pane and it will be answered accordingly. Students are strongly encouraged to participate during the synchronous lecture sessions.

Tips for Success

This course will have regular weekly assignment due. Check out Modules on the homepage and Weekly Course Updates in Announcements to get more information about the course/assignment requirements and due dates.

An online course is much like face-to-face course. It takes a significant time commitment from you. Therefore, each of you must manage your own time. I expect you to spend at least 15 hours per week working on the material.

1. **Come to lecture and prepared**. Lecture is the most important part of this course. During the lecture, you will have an opportunity to interact with the professor and gain not only the knowledge but also the sense in science.
2. **Complete the weekly assignments in time**.

Each week you will be completing:

- Discussions/Lectures
- Assignments
- Lab Reports

3. **Be an active learner–take charge of your learning**. For you to succeed in this course you must practice the concepts covered and prepare for each class. Before each lecture, read the material to be covered. Do not spend too much time on any one point; simply obtain an overview of the relevant topics to be covered. After lecture, **reread** the material more critically referring to your notes (which may be useful to rewrite) for difficult concepts. Try the assigned exercises and review the *Summary* at the end of each chapter. Discuss the concepts and exercises with your weekly study group. If you have trouble with a particular concept or assignment, ask for help in class or email me to make an appointment.
4. **Do the homework**. You must work problems over and over again in order to develop good problem-solving skills based on critical thinking. In other words, simply scratching the surface of the material in this course or looking for shortcuts will not be enough to demonstrate a thorough understanding. In addition, it is not enough just to be able to plug numbers into an equation. I expect you to also understand the conceptual basis behind the calculations. The assigned homework is the minimal amount required; do more to ensure mastery of the content.

If you have any questions about this course, please contact me at atolstov@sbccd.cc.ca.us. My goal to respond to your message as soon as possible. However, if you do not receive a response back within 24 hours, please resend the message.

10. How will you design and deliver your course to ensure disproportionately impacted students are reflected in your course content, and what communication methods do you plan to employ to ensure they remain engaged and succeed in your course with full access to all course materials and tools?

Instructors will promote learning through group interaction. They may use Breakout Rooms during the synchronous discussion sessions to split students into separate sessions as a Think-Pair-Share technique or Peer-to-Peer collaboration.

San Bernardino Valley College

DISTANCE EDUCATION EMERGENCY ADDENDUM

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 may 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, 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 threaded discussion forums with requirements to post and comment on others' posts. Guidelines and templates will be given to avoid standard short responses such as "I agree".

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. Instructors will also create Weekly Course Update Announcement. Instructors will send e-mail reminders, will use Canvas, Announcements, and Modules to connect with students and keep them updated.

Weekly Course Update: Week Five

Greetings Students!

We are now at Week Five!
This week assignments include:

1. Exam #1 **Due on Wednesday 09/16/20 at 11:59 pm**
2. **Extra Points exam/quiz. Due on Sunday 09/20/20 at 11:59 pm**
   - You will have two multiple-choice questions.
   - To find the extra points exam/quiz, go to Modules, find the Module "Week 5: 09/14 - 09/16/20", locate "Extra Points Exam 1" and click it.
   - Read each question and answer choice carefully and choose the **ONE** best answer.
   - No time limit for the Extra Points/Quiz. **Due on Sunday 09/20/20 at 11:59 pm**
   - Two attempts
   - You will be able to see the correct answers only after the last attempt
   - Will keep the highest score, maximum 10 points
   - I will update the exam #1 score manually

3. **Quiz 2, Forces. Due on Sunday 09/20/20 at 11:59 pm.**
   - You will have two multiple-choice questions.
   - To find the quiz, go to Modules, find the Module "Week 5: 09/14 - 09/16/20", locate "Quiz 2, Force" and click it.
   - Read each question and answer choice carefully and choose the **ONE** best answer.
   - No time limit for the Quiz. **Due on Sunday 09/20/20 at 11:59 pm**
   - Two attempts
   - You will be able to see the correct answers only after the last attempt
   - Will keep the highest score, maximum 10 points

4. **Discussion 2. Due on Sunday 09/20/20 at 11:59 pm**
   - To find the discussion, go to Modules, find the Module "Week 5: 09/14 - 09/16/20", locate "Discussion 2, Force" and click it.
   - Follow the instructions.

San Bernardino Valley College

DISTANCE EDUCATION EMERGENCY ADDENDUM

That's all for now!

Have a wonderful week,
Prof. Tolstova

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 two/three questions they have on the topics being discussed. A zoom link will be provided where the instructor will provide feedback on students' questions.

11. 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?

During the online lab, instructor will use physics laboratory simulations and educational exercises. Students will be able to explore and manipulate with these simulations by dragging objects or changing the data. For instance, Physics Department is using PhEt Interactive Simulations, a website with free science simulations such as
https://phet.colorado.edu/en/simulations/category/physics
http://vlab.amrita.edu/

Instructors will provide step-by-step instructions for each lab and post the files on Canvas. Using data from previously performed lab experiments as well as simulation generated data, students will then create and submit/e-mail their lab report.

Although these online labs may not allow students to physically interact with laboratory equipment. However, they provide a great resource for students to understand the theoretical reasons behind the labs additionally students will be able to focus on data validation and analysis.

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

The Physics/Astronomy/Engineering 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.

1. Students will demonstrate an understanding of the basics of the fields of thermodynamics, fluids, optics, and modern physics, and their corresponding physical laws by correctly describing and identifying the concepts relevant to these fields.

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.

San Bernardino Valley College

DISTANCE EDUCATION EMERGENCY ADDENDUM

2. Given new situations, by using various calculus, trigonometric, and algebraic techniques, students will correctly solve a variety of physical situations by a proper application of the principles, laws, and concepts of physics.

Each lecture and videos are designed to address this SLO. Tests and threaded discussion forums 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 and/or solve simple problems.

3. Also, given a particular laboratory physical objective in thermodynamics, fluids, optics, or modern physics, 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. Lab instructions are designed to measure effectiveness in meeting this SLO. Lab PHET simulations are used as a way to measure effectiveness in meeting this SLO.

For SLO #1 and SLO #2, a percentage of how many students scored within the grade ranges (A, B, C, D, and F) will be calculated to represent the students' ability to not only understand the basic concepts, but also to be able to solve a variety of physical situations. For SLO #3, a percentage of how many students have lab participation and lab report averages falling within the same grade ranges will be calculated. The data will represent the students' ability to assemble, use, and analyze physical systems.

The Learning Course Objectives are staying the same in the online environment, and instructors will make this as priority. Finally, it will allow the department to see and quantify the validity of teaching such a course online.

13. 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:		☐ **YES** ☐ **NO**
DE REVIEW:	**M. Worsley**	☐ **YES** ☒ **NO**
CURRICULUM COMMITTEE DIVISION REPRESENTATIVE REVIEWED:		☐ **YES** ☐ **NO**

San Bernardino Valley College

DISTANCE EDUCATION EMERGENCY ADDENDUM

Notes from Maggie:
#9 does not address instructor feedback. How and how frequently may students expect feedback from the instructor? Will the instructor give feedback within 7-10 days? Another time frame? Will there be feedback within Canvas comments section? Annotated corrections on assignments? Some other method?

#10: as an equity piece, how will the design of this course ensure disproportionately impacted students are reflected in the course content? This is also an area where a "Dear Struggling Student" letter may be appropriate.

Other than the above issues, this DE Addendum looks great.