San Bernardino Valley College

DISTANCE EDUCATION ADDENDUM

COURSE ID:	**ELECTR 266**
DEPARTMENT:	**Electrical/Electronics**
SUBMITTED BY:	**Anthony S. Ababat**
DATE SUBMITTED:	**4/19/20**

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. 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, 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.**

Offering ELECTR 266 Course through a distance education Hybrid type format will expand access to this class. Students who enroll in this course do so to enhance their skills in Designing and Programming Microprocessors related projects. Historically, students enrolling in this course encounter time constraints in coming to School Campus and transportation as a barrier. Since 2019, most students that want to join and complete Microprocessor course are working students. To eliminate these barriers, offering this course as Hybrid is a good alternative. By offering online classes, Electronic and Electrical technicians or working students from various companies can enroll this course and achieve their lifetime career goals.
(Student Access, Student Equity, Student Needs)

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.)**

Synchronous office hours can be implemented by the instructor using Online Conference Tool such as Microsoft Office Team or Confer Zoom meetings. And achieved by sending students the invitation link schedule deemed appropriate for this specific course to help students understand the course materials and complete the class.

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.)**

Instructor prepared materials combination of synchronous and asynchronous types, threaded discussion forums, weekly Announcements and Assignments. If needed, conduct online meetings and online lectures. To ensure regular and effective instructor-student contact, the course design include "Expectations for the Student and Instructor". The specific example as provided in this online course is given below:

Student Expectations

To be successful in this course, you are expected to:

- Complete the **Student Learning Contract** by Friday of the first week.
- Read the entire **Syllabus.**
- Consistently check **Announcements**, your school email account, and the Canvas Inbox.
- Review the **calendar** for due dates.
- Participate in **Discussions** (post weekly and respond to your classmates).
- Turn in your own work that has been thoughtfully completed. Proofread for errors in spelling and grammar.
- **Communicate** with your instructor of any problems or confusion well in advance of the due date.
- **Complete** all discussions, assignments, online quizzes, and/or exams on time.

Instructor Expectations

As your instructor, I will

- **Communicate** to you via Canvas announcements and Inbox.
- **Post** weekly course-related announcements.
- **Respond** to your email or phone message within 24-48 hours.
- **Monitor** all discussions and provide feedback to the entire class where needed at least weekly.
- Provide individual **feedback** on assignments/papers/projects within one week of the due date. (View Finding Grades and Feedback)
- Work with you so you will have a **successful learning experience** in this course!
- Provide all course material in an accessible format.

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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?

The implementation of student-student contact through Threaded discussion forums where each student will reply to each of their peers in a weekly given topic. Assigned group projects for students to collaborate on their plans and ideas to complete the required project for this course. In this designed Hybrid course, students will have the opportunity to meet on campus for the laboratory portion of this class, physically work on their Microprocessor project and interact with each other.

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.

We can achieve student-student contact by implementing the Threaded discussion forums where each student will reply to each of their peers in a weekly given topic. Assigned group projects for students to collaborate on their plans and ideas to complete the course's required project. This course is Hybrid, so students will have the opportunity to meet on campus for the laboratory portion of this class, physically work on their laboratory projects and interact with each other.

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 frequency and timeliness of instructor-initiated contact and student feedback in this ELECTR 266 class can be implemented by weekly monitoring of student's performance and checking on the student's analytics through Canvas. It will be implemented in DE format as follows:

- The presentation or materials in an online format and other appropriate media (such as audio, video, PPT slides, Word and PDF files will be check for accessibility.
- A good design for weekly assignments and projects that promote collaboration among students.
- Model course netiquette at the beginning of the semester with instructor-guided introductions.
- Pose questions in the discussion boards which encourage various types of interaction and critical thinking skills among all course participants.
- Monitor content activity to ensure that students participate fully, and discussions remain on topic.
- Create a specific forum for questions regarding course assignments. (e.g. "Got a Question?")
- Guided practice through Simulation and On-Campus assigned laboratory activities.
- Testing and debugging Microprocessor Programs

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

Since the course is designed as Hybrid, students will have the opportunity to meet in campus for the laboratory portion of this class, physically work on their laboratory project and interact with each other. The effective

student-student interaction may also occur in this online course by providing socially focused exchanges such as a guided instruction, positive and healthy exchange of information, and participation in activities designed to increase a social rapport. For example, the collaborations and discussion among students in performing their labs on campus and building up the required Program to successfully implement the assigned laboratory work. Discuss among themselves the appropriate strategy to perform the required program as well as the required troubleshooting in situations that their Microprocessor Program will not initially work as expected. Furthermore, it can also be done through weekly threaded discussions, Synchronous online meetings, and Peer-to-peer feedback.

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

An effective instructor-student interaction implemented in this ELECTR 266 class will be to encourage students in participating in discussions, providing students with feedback, listing the office hours availability and consistent communications. As a student, they can expect to interact with their instructor throughout the week, beginning with the weekly announcement posted each Sunday. Students should plan on checking Canvas at least three times during the week – once to post initial assignments, once to post feedback to other assignments, and responding to your peer and instructor's feedback. This can include:

- Solving and working electrical tasks using the PLC Logix Simulation Software
- Follow up reminders or previews of upcoming assignments
- Comments on or a summary of a current discussion
- General comments on how the class did on a test or assignment
- Remediation on a misunderstood or muddy learning point, based on student work
- A link to a relevant video or article
- Perform the required laboratory work using their laptop along with the required Lab equipment such as Microprocessor Trainer.

Instructor will assist and evaluate students work after performing each laboratory activity and will provide feedback and demonstration to successfully implement the required laboratory tasks.

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?

Typical face to face Laboratory Hands-on exercises provided every week can be done through, 8051 trainer kit and other Laboratory Equipment. VMWare subscription for students that do not have suitable computer hardware and 8051 Micr0processor Simulation Software. Future improvements for Laboratory Hands-on Experiment made through Arduino units or other Microprocessor Project preferred by the students.

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

Typically, SLOs and Course Objectives are addressed in lectures and evaluated based on assignments, discussions, and group presentations. These methods are still absolutely viable using a DE Hybrid format. The laboratory will be implemented by following the required social distancing guidelines and assigned approved schedule to perform the required weekly laboratory work.

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In this class, the students will use the laptop assigned to them along with the software and the Microprocessor kit needed to demonstrate their ability to interpret various microprocessor circuits and using the proper logic diagrams, address the microprocessor memory registers with 100% accuracy. Each student will have their assigned laptop and 8051 Trainer to work individually or as a team and prove that their program will operate using Microprocessor application such as automatic washing machine motor control system, Bidirectional Visitor Counter, Digital Alarm Clock, Digital Clap meter and other interesting Microprocessor projects and demonstrate their ability to correctly explain and describe the difference in microprocessor components by physically separating them into their various operational characteristics and pass a written exam with a minimum score of 70%.	

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:		**☐ YES ☐ NO**
DE REVIEW:		**☐ YES ☐ NO**
CURRICULUM COMMITTEE DIVISION REPRESENTATIVE REVIEWED:		**☐ YES ☐ NO**