



Capstone - Applied Data Science Project
(24 Hours / 2.4 CEUs)
CSU Fullerton | Extension and International Programs
Fall 2020 Syllabus

Instructor:

Kevin Potcner

Email: kpotcner@fullerton.edu

Email is the best way to communicate all inquiries. All emails will be answered in a timely manner.

Course Dates 9/21/2020 (Monday) – 11/1/2020 (Sunday)

Course Code E207-34159

Online Consultation Hours:

This will be determined on a team basis. Consultation hours will occur once a week at a set time.

Course Meeting Time

All course sessions, including discussions and participation efforts will be held online. Online lectures pre-recorded and therefore self-paced. There is no on-campus meeting for this course.

Student Support

For registration, add, drop, refund
and payment, please contact:

All other program administrative
questions please contact:

Student Services

(657) 278-2611 (Fullerton)

Support Staff Member

Makeda Seyoum

mseyoum@fullerton.edu



***Note:** All communication, directions and guidance for all online courses will be sent to your CSUF email account. You are responsible for checking your campus email on a regular basis. All individual communications and questions from you should be made through your campus email. If you have trouble accessing the CSUF email system contact the Student IT Help Desk (657) 278-8888.*

Course Overview

The course is designed to pull together concepts learned from previous courses and apply techniques in real-world scenarios. Students will have the unique opportunity to work on real data to solve a practical problem. By the end of the project students will have experienced the entire data science project lifecycle: attack the business problem with data by reframing the problem, establish experimental tests of data-drive hypotheses, generate meaningful findings, communicate and present them in a clear and effective manner. Students will also be introduced to the art of Data Visualization, and will be able to apply those techniques as part of their project presentation.

Prerequisites

Foundational Data Science I, Foundational Data Science II, Statistical Analysis, Modeling and Data Mining, Computational Data Sciences and Machine Learning

Course Expectations

Online learning is self-directed learning. It requires a high level of responsibility, dedication and self-discipline on the part of the student. During this course, students are expected to achieve the course objectives and are graded on achievement, not effort. Team work is a CRITICAL requirement for this course and your team members are depending on you, as you are on them to successfully pass and get the most out of this experience. Please be cognizant of this and be responsive and timely in your interactions and deliverables. You are responsible for your own work, your own progress and your own grade. In order to succeed, you need to log into the course regularly to access course content, participate in discussions, and be an active team member.

Course Material

There are no weekly lectures for the capstone course. You will be working in teams to complete a final presentation for the Executive Team. This will be done in weekly stages.

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The following is expected of you so that you can successfully complete the course and receive credit:

- Log-in to the course consistently throughout the duration of the course.
- Post to the **'Introduce Yourself'** forum.
- Carefully review the course syllabus and view the EIP Online Tutorials if necessary.
- Watch/read all lecture materials for each module.
- Read, post, and respond to discussion forums for each module. Read posts and responses from other students to help better understand the material.
- Complete all required assignments and activities.
- Participate in online office hours (as needed). If you need additional help or can't make the office hours, please contact the instructor directly.
- At the end of the course, complete the **'Course Evaluation'**.
- Ask questions when you don't understand something.

Online Office Hours Using Zoom

Zoom is an audio and video conferencing software used for online office hours. If you are using Zoom for the first time, you will be prompted to download and install Zoom software before you can enter the meeting. The system requirements and a tutorial on how to use Zoom will be posted in the course's online office hour block. Contact the EIP Online Support Desk for help using Zoom.

Technical problems are **not** an acceptable excuse for long delays in posting assignments, reading messages, participating in discussions or failing to take any quizzes or exams within the appropriate timeframe. Should you encounter any technical difficulties logging on to the course, it is your responsibility to immediately contact the EIP Online Support Desk at (657) 278-4866 or (toll-free: 1-866-511-5991) or email eip-online@fullerton.edu.

Technical Recommendations & Support

Before registering for an online course, we recommend that you check to see if you have the necessary equipment and software to be successful while learning online. Our online courses contain both audio and video elements. Specific software and hardware requirements will vary from course to course. Check the course syllabus once you have registered.

| Recommended Equipment and Software | |
|------------------------------------|--|
| Operating System | Windows 10 or higher; Macintosh OS X 10.4 or higher |
| Plug-ins | Zoom, Java, |
| Browser | Google Chrome, Mozilla Firefox |
| Display | 1336x768 or higher |
| Software | Adobe PDF Reader, Microsoft office |
| Internet Connection | DSL/CABLE/FIOS |
| E-mail Account | CSUF student email account |
| Sound | Headset for lectures and online office hour sessions |
| Webcam | Built-in or USB webcam for synchronous, online office hour sessions, and potential proctored exams |

EIP Online Support Desk

If at any time during the course you have technical questions or difficulties, please contact the EIP Online Support Desk at eip-online@fullerton.edu or call (657) 278-4866 or [1-866-511-5991 (Toll Free)] during the following hours:

Monday-Friday: **8am - 5pm PST**

After Hours and Weekend Inquiries:

Please submit a [Support Desk Request](#) here. Requests submitted after the Support Desk office hours will be reviewed on the following business day (excluding holidays). We will reply to most requests within 24 hours. If immediate assistance is necessary after hours, you may also contact the Student IT Help Desk 24/7 at 657-278-8888.

Attendance and Assignment Policy

The program offers Continuing Education Units (CEUs) at the value of one CEU for every ten hours of instruction. A 90% attendance rate is required in each course to receive the corresponding CEU credit, this may vary depending on the number of course meetings. In addition to required attendance, in order to receive CEU credit, students must submit all completed homework assignments on assigned dates and perform at a passing level on all quizzes and exams.

Information on Disability Support Services

The University requires students with disabilities to register with the Office of Disability Support Services (DSS), located in UH-101 and at 657.278.3112, in order to receive prescribed accommodations appropriate to their disability. Students requesting accommodations should inform the instructor during the first week of courses about any disability or special needs that may require specific arrangements/accommodations related to attending course sessions, completing course assignments, writing papers or quizzes/tests/examinations.

Request certificate of completion

To be eligible for a certificate, candidates must earn a passing grade in all required courses for the certificate program with verified attendance and successful completion of all assignments, projects and exams. Please complete the Request for Certificate form online at: <http://extension.fullerton.edu/ProfessionalDevelopment/Certificate-Request> **after** you have completed the last course in the program. For further assistance, please call (657) 278-2611.

Academic Dishonesty

Students are expected to adhere to the university guidelines regarding academic dishonesty. Cheating and plagiarism will not be tolerated. Students who are caught cheating or plagiarizing in any form will receive a failing grade for the course and reported to the University for appropriate disciplinary action.

When the instructor has alleged that a student has performed an act of academic dishonesty (cheating, inventing false information or citations, plagiarism, or helping someone else commit an act of academic dishonesty) and has penalized the student for the act, the student has a right to contest the allegations and/or the penalty. In such cases, the instructor assumes the burden of proof and must provide evidence in support of the charge that the dishonesty has occurred.

Please refer to the university handbook for a full description and details of the policy: http://www.fullerton.edu/senate/publications_policies_resolutions/ups/UPS%20300/UPS%20300.021.pdf

Registration, Dropping, Refunds, and Payments

Refunds are based on the date when the official withdrawal is received in the Extension and International Programs office. If you need to drop a course, you may do so in person, by phone, fax or mail (using this form) through the EIP registration office at College Park 100 or (657) 278-2611.

Drops are not available online. The day the form or verbal notification is received is the official date of withdrawal and determines the amount of refund, if any. Allow up to six weeks for refunds via check. If you paid with a credit card, allow 7-10 business days for your refund to be credited back to your credit card. If you do not receive your refund by that time, please call the EIP office at (657) 278-2611.

- *Dropping prior to the beginning of a class:* If you drop at least one working day prior to the class start date, a full refund less \$10 per class dropped will be issued.
- *Dropping on the day of first class meeting and after:* If less than 25% of the calendar days for the class have elapsed, a 65% refund will be issued. If 25% or more of the calendar days for the class have elapsed, there will be no refund.

Dispute/Problems

Occasionally, students may voice their disagreement with faculty over the evaluation of student work, the assignment of grades, or course requirements. If a student dispute should arise, the instructor should work to resolve the situation effectively with the student in a professional and timely manner. However, if the dispute is unable to be resolved with the professor, the student should be directed to the Program Support person and/or Program Manager of the program.

Disclaimer: The course may be modified, verbally or in writing, at any time during the term at the discretion of the instructor or the department.

Course Schedule

The following table outlines topics covered in each module of the course.

| Module | Topics Covered |
|---|--|
| Week 1: September 21 - 27 | Problem Definition & Initial Data Collection |
| Week 2: September 28 – October 4 | Continue Collecting Data |
| Week 3: October 5 – 11 | Data Analysis 1.0 |
| Week 4: October 12 – 18 | Data Analysis 2.0 |
| Week 5: October 19 – 25 | Develop Presentation |
| Week 6: October 26 – November 1 | Finalize & Deliver Presentation Presentation Due: Monday, Nov. 2 @ 5:00 pm PST |

Course Assignments

The following is a tentative assignment schedule which is subject to change. Assignment changes will be updated as needed and all changes will be announced via the '**Course News & Announcements**' forum within Titanium.

| Deliverables | Assigned/ Due Dates | Maximum Points |
|---|--|--|
| Weekly Deliverables | Due by 11:55 pm Pacific Time Sunday of the assignment week. | Total: 50 <i>(10 pts each)</i> |
| Discussions <i>Participation will be assessed by the Participation Rubric.</i> | Postings due by 11:55 pm Pacific Time Sunday of the assignment week. Replies due by 11:55 pm Pacific Time Monday of the week <i>following</i> the assignment. | Total: 50 <i>(10 pts each)</i> |
| Final Presentation | Due by 5:00 pm Pacific Time Monday, November 2. | Total: 50 |

Total: 150 points

Late Assignments are NOT accepted. Please keep this in mind and don't leave submissions to the last minute!

Course Grading

Continuing Education Units

This course offers **2.4** Continuing Education Units (CEUs). Official grades of Credit/No Credit will be given. CEUs are awarded to students who receive a grade of **‘Credit’ (70% or higher)** based on timely and successful completion of online course participation and assignments.

| | |
|-----------------------|-------------------|
| Credit (CR) | ≥ 105 Points |
| No Credit (NC) | ≤ 104 Points |

Letter Grade Equivalent for this Course

Upon completion of a Continuing Education Unit (CEU) course, you will receive a letter grade equivalent verification letter from Extension and International Programs. This is sent approximately 2 weeks of the end date of the course. If you do not receive the letter grade equivalent verification letter or need to request a duplicate, please contact eipconnect@fullerton.edu or (657) 278-2611.

If required, the final course grade will be given as follows:

| | | |
|----------|-------------------------------|-----------|
| A | 90% - 100% | Credit |
| B | 80% - 89% | Credit |
| C | 70% - 79% | Credit |
| D | 60% - 69% | No Credit |
| F | $\leq 59\%$ | No Credit |