Management

Data Analytics, course MGMT 6770-55

Data Analytics / Big Data

Dr. James Brownlow

*Course Information:*

Course number 6550-50, -55, 3 units

Class location and time: AVC CSUB extension, Fridays, 5:30 – 8:00 pm

Office Hours: Saturdays 2:30-3:30, AVC CSUB extension

Instructor phone: 661 794-9458

Instructor email: [jbrownlow2@csub.edu](mailto:jbrownlow2@csub.edu)

*Grading, Exam Policy:*

Grades are based on homework assignments, projects and the final exam:

Homework: 20%

Projects: 50%

Final Exam: 30%

*Course Description:*

This course covers the fundamentals of data analytics for business. The first third of the class is devoted to learning and using R- software for data analytics. The second two-thirds of the class covers basics of data analysis for business, applied statistical methods, and working a variety of business-data problem.

*Course name and number, section number, and unit count*:

Mgmt 6770-55, Data Analytics, Big Data. 3-unit class

*Day (s) of class*;

Class meets Fridays, AVC-CSUB 123 ST-D, and by CCTV at main campus

*Time of class;*

Class is from 5:30 to 8:00 PM

*Office hours*;

Appointment.

*Office phone number;*

(661) 794-9458

*Office location;*

AVC- CSUB 123 ST-D

*Email address*;

b[rownlowJ@Yahoo.com](mailto:BrownlowJ@Yahoo.com)

*Location of class*;

Antelope Valley College, Bakersfield extension building

*Exam policy*;

There will be only one exam: the final. Grades are based primarily on data-analytic projects. The projects and associated data may be forked or downloaded from the instructor’s GITHUB site. Details of each project will be provided in class.

Grades are based on homework assignments (20%), business analytics projects (three at 20% each) and the final exam (20%). The final is in class, open book, open notes.

*Description*;

As noted above, this course is divided into two parts.

1. introduction for analysis methods and software used in Business analytics. Students will download course materials from the instructor’s GITHUB account. The first third of the class is devoted to learning to use R, learning to work in teams using GITHUB
2. basics of Business Analytics / Data Analysis. Data science is an emerging field. The goal of this part of the course is to provide students a foundation in some of the most important tools. Specifically
   1. **Visualization:** Show characteristics of a data set. Good visualization might also provide clues about what questions to ask as well as suggestions for further investigations.
   2. **Models:** Complementary to visualization. Once questions about a business process are sufficiently defined, a model may be developed to answer them. Models are fundamentally mathematical or computational in nature, and are based on a variety of assumptions: part of the analysis is understanding what assumptions have been made.
   3. **Communication:** This is the final step of data science, and as such it is an absolutely critical part of any data analysis project. It does not matter how well models and visualizations have led to understand data unless results can be communicated so they can be understood by others.

Knowledge gained from the first part of the course is essential to data analytic projects. R will be used to import data, produce visualizations, use data to develop models and statistical analyses of data.

1. ‘Put it all together. Three data-analytic projects will be completed in rmarkdown. The problems and associated data sets will be downloaded or forked from the instructor’s GITHUB site.

*Course student learning outcomes*;

Students will know basics of data analytics for business as well as some of the more widely-used data analytic techniques. Students will have an understanding of data graphics and inference. Students will have ‘hands-on’ experience with two business-related data projects.

*Required text (s) and course materials*;

All required text materials are available as .pdf files from the instructors GitHub account. Students are required to have access to a PC (or MAC or Linux) laptop computer to complete homework and project assignments. .

*Due dates for assignments and exams;*

Homework assignments are due every week; projects are ‘officilly’ due the last day of class. The final exam will be comprehensive, open-book, given the last day of class,

*Class attendance policy*;

Students are expected to attend class

*Policies for turning in late assignments and making up exams*;

Late assignments will be accepted. In general it is not a good idea to fall behind on homework or the midterm project.

*Grading policy, including components to be included in the calculation of the final course grade and their respective weights*;

As noted above, homework assignments will constitute 20% or the final grade, the final 20% and each of the data-analytic projects 20% (each).

*Course standards for academic integrity*;

Standards are those specified in the course catalog. Students are expected to do all the work assigned; working in teams is acceptable, and is generally a good practice. Students working project in teams must turn in his/her own assignment completion. For the complete policy, see the university catalog.

*Regarding academic accommodations for students with disabilities*;

To request academic accommodations due to a disability, please contact the Office of Services for Students with Disabilities (SSD) as soon as possible. You must have an accommodations letter from the SSD office documenting that you have a disability; present the letter to the instructor privately (for example, during office hours) as soon as possible or in the first class period.

All other issues are in accord with departmental guidelines and practice.