

# DS 115: ADVANCED BUSINESS ANALYTICS

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## In Workflow

1. CBA College Committee Chair (jbrichar@csus.edu)
2. CBA Dean (jaydeep.balakrishnan@csus.edu)
3. Academic Services (torsetj@csus.edu; cnewsome@skymail.csus.edu)
4. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
5. Dean of Undergraduate (james.german@csus.edu; celena.showers@csus.edu)
6. Dean of Graduate (cnewsome@skymail.csus.edu)
7. Catalog Editor (torsetj@csus.edu)
8. Registrar's Office (wlindsey@csus.edu)
9. PeopleSoft (PeopleSoft@csus.edu)

## Approval Path

1. Wed, 05 May 2021 19:32:00 GMT  
Joseph Richards (jbrichar): Approved for CBA College Committee Chair
2. Wed, 18 Aug 2021 00:16:38 GMT  
Jaydeep Balakrishnan (jaydeep.balakrishnan): Approved for CBA Dean

## History

1. Nov 23, 2020 by Min Li (limin)

Date Submitted: Mon, 03 May 2021 23:40:22 GMT

**Viewing: DS 115 : Advanced Business Analytics**

**Formerly known as: MIS 132**

**Last approved: Mon, 23 Nov 2020 15:01:13 GMT**

**Last edit: Mon, 03 May 2021 23:40:21 GMT**

Changes proposed by: Min Li (101017159)

### Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Min Li	Min.Li@csus.edu	916-278-7132

### Catalog Title:

Advanced Business Analytics

### Class Schedule Title:

Advanced Business Analytics

### Academic Group: (College)

CBA - Business

### Academic Organization: (Department)

Information Systems and Business Analytics

### Will this course be offered through the College of Continuing Education (CCE)?

No

### Catalog Year Effective:

Spring 2021 (2021/2022 Catalog)

### Subject Area: (prefix)

DS - Decision Sciences

### Catalog Number: (course number)

115

### Course ID: (For administrative use only.)

203238

**Units:**

3

**In what term(s) will this course typically be offered?**

Fall, Spring

**Does this course require a room for its final exam?**

Yes, final exam requires a room

**Does this course replace an existing experimental course?**

No

**This course complies with the credit hour policy:**

Yes

**Justification for course proposal:**

DS 115 is a continuation of DS 110 Data Mining for Business Analytics for the Business Analytics concentration but the prerequisite DS 110 was left out when this concentration was established last year. The prerequisite is revised to include DS 110 and also allow Business, Computer Science, and Mathematics majors to enroll in the course. This course has been in the catalog for decades even though it's been offered only a couple of times during the last 20 years. The topics listed for this course are dated. Given the rapid advances in business analytics, the content is revised to reflect recent development. The title of the course is changed to "Advanced Business Analytics" to reflect the more advanced topics covered in this business analytics course.

**Course Description: (Not to exceed 80 words and language should conform to catalog copy.)**

This course introduces students to more advanced topics in business analytics including Neural Networks, Deep Learning, Text Mining, Social Network Analytics, Computer Vision, and their applications in business.

**Are one or more field trips required with this course?**

No

**Fee Course?**

No

**Is this course designated as Service Learning?**

No

**Does this course require safety training?**

No

**Does this course require personal protective equipment (PPE)?**

No

**Does this course have prerequisites?**

Yes

**Prerequisite:**

DS 110. Business, Computer Science, and Mathematics are approved majors to enroll in the course.

**Prerequisites Enforced at Registration?**

Yes

**Does this course have corequisites?**

No

**Graded:**

Letter

**Approval required for enrollment?**

No Approval Required

**Course Component(s) and Classification(s):**

Lecture

**Lecture Classification**

CS#02 - Lecture/Discussion (K-factor=1WTU per unit)

**Lecture Units**

3

**Is this a paired course?**

No

**Is this course crosslisted?**

No

**Can this course be repeated for credit?**

No

**Can the course be taken for credit more than once during the same term?**

No

**Description of the Expected Learning Outcomes: Describe outcomes using the following format: "Students will be able to: 1), 2), etc."**

Students will be able to:

1. identify opportunities for creating value using business analytics,
2. estimate the value created using business analytics,
3. provide insights and improve the quality of business decisions using business analytics,
4. determine where business analytics is applicable within an organization and evaluate situations where business analytics can be misused.

**Attach a list of the required/recommended course readings and activities:**

syllabus\_DS115.docx

**Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above.**

Students will be assessed on the curriculum in the class using a variety of methods, including:

- Projects (ELO 1, 2, 3, 4)
- Exams (ELO 1, 2)
- Quizzes (ELO 1, 2)
- Homework Assignments (ELO 1, 2, 3, 4)

**Is this course required in a degree program (major, minor, graduate degree, certificate?)**

Yes

**Has a corresponding Program Change been submitted to Workflow?**

No

**Identify the program(s) in which this course is required:****Programs:**

BS in Business Administration (Business Analytics)

**Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?**

No

**Will there be any departments affected by this proposed course?**

No

**I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.**

I/we agree

**University Learning Goals****Undergraduate Learning Goals:**

Competence in the disciplines  
Integrative learning

Intellectual and practical skills

**Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?**

No

**GE Course and GE Goal(s)**

**Is this a General Education (GE) course or is it being considered for GE?**

No

Key: 3404