

MSBA 221: AI APPLICATIONS IN BUSINESS ANALYTICS

In Workflow

1. CBA College Committee Chair (panggabean@csus.edu,joseph.taylor@csus.edu)
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Approval Path

1. 2026-04-15T22:20:42Z
Tota Panggabean (panggabean): Approved for CBA College Committee Chair
2. 2026-04-18T02:14:26Z
Pingsheng Tong (ptong): Approved for CBA Dean

New Course Proposal

Date Submitted: 2026-04-15T16:12:32Z

Viewing: MSBA 221 : AI Applications in Business Analytics

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Changes proposed by: Min Li (101017159)

Contact(s):

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Catalog Title:

AI Applications in Business Analytics

Class Schedule Title:

AI Applications in BA

Academic Group: (College)

CBA

Academic Organization: (Department)

Information Systems and Business Analytics

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

Yes

Please specify:

CCE Only

Catalog Year Effective:

Spring 2027 (2026/2027 Catalog)

Subject Area: (prefix)

MSBA - Business Analytics

Catalog Number: (course number)

221

Course ID: (For administrative use only.)

TBD

Units:

3

Is the ONLY purpose of this change to update the term typically offered or the enforcement of existing requisites at registration?

No

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

Fall, Spring, Summer

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:

This course is proposed to support the Certificate in Applied Artificial Intelligence for Business Analytics and to expand elective offerings in the Master of Science in Business Analytics (MSBA) program. While existing MSBA coursework emphasizes analytics foundations, data infrastructure, and applied AI development, the curriculum does not currently provide a dedicated, systematic examination of how artificial intelligence is applied across core business functions to create organizational value.

The proposed course addresses this gap by focusing on real-world AI applications in business contexts, including marketing, finance, operations, supply chain, human resources, and customer analytics. Emphasis is placed on identifying appropriate use cases, evaluating business impact, understanding implementation considerations, and assessing limitations of AI solutions, rather than on algorithmic theory or software development. This applied, use-case–driven focus differentiates the course from existing offerings such as Applied AI for Business Analytics, Big Data Technologies, and the MSBA culminating experience.

As an elective in the MSBA program, the course enhances students' ability to translate analytics and AI capabilities into actionable business solutions. As a required or elective component of the certificate, it ensures that students engage in focused study of applied AI beyond technical implementation alone. The course is designed to be accessible to graduate students from programs outside the MSBA, with enrollment subject to instructor consent, and does not require extensive prerequisite sequencing.

The proposed course leverages existing faculty expertise and instructional resources and does not require additional infrastructure. It strengthens curricular coherence, preserves the academic distinctiveness of the certificate, and reflects current industry demand for professionals who can effectively evaluate and deploy AI applications in business settings.

Course Description: (Not to exceed 90 words and language should conform to catalog copy.)

This course provides hands-on experience applying artificial intelligence techniques across major business functions, including marketing, finance, operations, human resources, supply chain, and customer experience. Students design, build, and implement AI-driven solutions using contemporary tools and frameworks to support forecasting, personalization, automation, risk assessment, and decision-making in real organizational contexts. Emphasis is placed on practical model development, deployment workflows, performance evaluation, and translating AI outputs into business value, while critically assessing implementation challenges, governance considerations, and limitations of AI systems.

Are one or more field trips required with this course?

No

Fee Course?

No

Is this course designated as Service Learning?

No

Is this course designated as Curricular Community Engaged 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:

MSBA 201 or instructor approval

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 and Assessment Strategies:

List the Expected Learning Outcomes and their accompanying Assessment Strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers). Click the plus sign to add a new row.

	Expected Learning Outcome	Assessment Strategies
1	Identify appropriate business problems for AI-based solutions	Case studies
2	Analyze AI applications across business functions	Case studies; class discussions
3	Evaluate business value and limitations of AI applications	Project
4	Compare AI-based approaches with traditional analytics methods	Project

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

SyllabusMSBA221.docx

For whom is this course being developed?

Majors in the Dept

Other

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:

Certificate in Applied Artificial Intelligence for 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

Graduate (Masters) Learning Goals:

Disciplinary knowledge

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

Is this a Graduate Writing Intensive (GWI) course?

No

Key: 15515