Curriculum Register – Special Edition

May 19, 2025

This publication contains proposed curriculum changes, organized into the following sections:

    I.   **Request to Include Proposed Degree Program in Academic Master Plan,** which includes a synopsis of course and program proposals that have been submitted for review to their department curriculum committee and program faculty, and new program proposals that have been approved by the Board of Trustees to appear on the CSUDH Academic Master Plan.

    II.   **Campus-Wide Sharing,** which includes a synopsis of course and program proposals that have been submitted for review to their department curriculum committee and program faculty, and new program proposals that have been approved by the Board of Trustees to appear on the CSUDH Academic Master Plan.

All proposals must complete each step in the curriculum review process:

New Degree Programs & Program Modifications

New & Modified Courses

To view curriculum proposals submitted via Course Leaf, click on one of the links below:

Course Proposals in Course Leaf

Program Proposals in Course Leaf

Moratorium for Proposals in Campus-wide Sharing Stage:
The Campus-wide Sharing section of the Curriculum Register contains only a summary of the curriculum proposal. There will be a 10 working-day moratorium, starting from the publication date of the Curriculum Register, during which departments, deans, or individual faculty may raise objections or concerns to the proposing faculty and College Curriculum Committee.

After the College Curriculum Committee has been contacted with an objection, the objector has 10-working days to review the entire proposal and submit a formal objection in writing. Please review the Process for Objections to Curriculum Proposals for more information related to the objections process.

Moratorium Date: May 21, 2025

Once the moratorium date has passed for campus-wide sharing and no objections are received, the proposal will continue through the stages of the curriculum review process.

The Office of Academic Programs produces the Curriculum Register. Any questions or comments should be directed to the Office of Academic Programs at creview@csudh.edu or at (310) 243-3308.

Request to Include Proposed Degree Programs in Academic Master Plan

The following program proposals have been submitted for review to their college dean and the Provost to be included in the fall 2025-26 Academic Master Plan for review by the Board of Trustees.

College of Arts and Humanities

No submissions received.

College of Business Administration & Public Policy

Program Name: Master of Science in Business Analytics and AI Innovation (MS in BAAII)

Title of Projected Degree	Master of Science in Business Analytics and AI Innovation (MS in BAAII)
Degree Designation (e.g., BS)	MS
Projected Implementation Date	Fall 2027
Campus	CSU Domginuez Hills
College	*College of Business Administration and Public Policy*
Department	Information Systems and Operations Management
Contact Name(s) and Email(s)	Nancy Deng ndeng@csudh.edu Chi-Wen Chen chchen@csudh.edu

1. **Delivery mode of program:** Face-to-Face ☒ Hybrid ☒ Online ☒

2. **Support Mode:** State-Support ☒ Self-Support ☐

3. **A brief summary of the purpose for and description of the projected degree**:

   The Master of Science in Business Analytics and Artificial Intelligence Innovation program is designed to equip students with advanced knowledge and skills in data analytics, machine learning, and AI-driven innovation. The program focuses on preparing graduates to leverage data insights and AI technologies to address complex business challenges, drive strategic decision-making, and lead transformative initiatives within organizations. It emphasizes both the technical aspects of data science and the business applications of AI, fostering a blend of analytical and strategic thinking.

4. **List the projected program learning objectives:**
   - **PLO1: Analytical Thinking**
     Apply advanced analytical methods and data-driven decision-making techniques to solve complex business problems.
   - **PLO2: AI Integration**
     Design, implement, and evaluate AI-driven solutions within business contexts, using current tools and frameworks.
   - **PLO3: Business Strategy Alignment**
     Integrate data analytics and AI innovations with business strategy to drive organizational value and competitive advantage.
   - **PLO4: Innovation and Digital Transformation**
     Identify opportunities for innovation through emerging technologies and lead digital transformation initiatives.

- **PLO5: Technical Proficiency**
  Demonstrate proficiency in tools and platforms for data analysis, machine learning, and business intelligence (e.g., Python, R, SQL, Tableau).
- **PLO6: Ethical and Responsible AI Use**
  Evaluate and address ethical, legal, and societal implications of AI and data use in business environments.
- **PLO7: Communication and Collaboration**
  Communicate analytical insights effectively to diverse audiences and collaborate across interdisciplinary teams.

5. **Proposed CIP code:** 30.7102

6. **For new degree programs that are not already offered in the CSU, provide a compelling rationale explaining how the proposed subject areas constitute a coherent, integrated degree program that has potential value to students and that meets CSU requirements for an academic program at the undergraduate or graduate level.**

   The **Master of Science in Business Analytics and AI Innovation** represents a coherent and forward-thinking integration of two rapidly evolving fields—**business analytics** and **artificial intelligence (AI)—**within the context of innovation and strategic decision-making. This interdisciplinary program is designed to address the growing demand for professionals who can bridge the gap between data science, AI technologies, and practical business applications.
   While CSU campuses may offer related programs in data science, information systems, or business administration, this proposed degree offers a **unique and integrated curriculum** that focuses specifically on the **strategic application of AI and analytics in business innovation**. The program emphasizes not just technical competencies (e.g., data modeling, machine learning, and AI deployment), but also their alignment with **organizational goals, ethical considerations, and digital transformation initiatives.**

7. **The projected program's fit and relevance within the scope of campus strategic academic planning:**

   The proposed MS in Business Analytics and AI Innovation aligns closely with the campus's strategic academic goals, particularly in advancing innovation, fostering interdisciplinary collaboration, and preparing students for success in technology-driven careers. The program reflects the institution's commitment to offering forward-looking, industry-relevant graduate education that supports regional economic development and societal needs.

8. **Anticipated student demand:** Provide projections in the table below and identify the evidence you have used to make these projections (e.g., US Bureau of Labor Statistics).

	At Initiation	After 3 Years	After 5 Years
Number of Majors (Annual)	25	30	35
Number of Graduates (Cumulative)		25	55

The projected enrollment figures are based on robust labor market trends and the increasing demand for professionals skilled in business analytics and artificial intelligence (AI). According

to the U.S. Bureau of Labor Statistics (BLS):

- **Data Scientists**: Employment is projected to grow by **36% from 2023 to 2033**, significantly faster than the average for all occupations. This growth is driven by the increasing importance of data-driven decision-making in various industries.
- **Software Developers**: Employment is expected to increase by **17.9% between 2023 and 2033**, as businesses continue to require innovative software solutions, including those powered by AI.
- **Database Architects**: A projected growth of **10.8% from 2023 to 2033** reflects the need for professionals who can design and manage complex data systems integral to AI and analytics applications.

These statistics underscore a strong and growing demand for expertise in business analytics and AI, supporting the anticipated student interest and enrollment in the proposed program.

- Evidence: The evidence documents can be found in the following links.

1. https://www.bls.gov/ooh/math/data-scientists.htm
2. https://www.bls.gov/opub/ted/2025/ai-impacts-in-bls-employment-projections.htm
3. https://www.bls.gov/opub/mlr/2025/article/incorporating-ai-impacts-in-bls-employment-projections.htm

9. **Workforce demands and employment opportunities for graduates:** Describe the demands and opportunities, as well as the evidence you have used to make these claims.

The workforce demand for professionals with expertise in business analytics and artificial intelligence (AI) is rapidly growing across all sectors, including technology, finance, healthcare, logistics, retail, and government. Employers increasingly seek individuals who can extract insights from large data sets, apply AI tools to optimize decision-making, and drive innovation through technology.

Key employment opportunities for graduates include:
- Data Analyst
- Business Intelligence Analyst
- AI Solutions Architect
- Data Scientist
- Machine Learning Specialist
- Analytics Consultant
- Product Manager (AI-enabled products)
- Innovation Strategist

Evidence of workforce demand:
1. **U.S. Bureau of Labor Statistics (BLS)**:
   - Employment for **Data Scientists** is projected to grow **36% from 2023 to 2033**, much faster than average. This is due to the need for businesses to process and analyze large volumes of data for competitive advantage.
   - Source: BLS Data Scientists Outlook
2. **World Economic Forum – Future of Jobs Report 2023**:
   - AI and big data roles rank among the fastest-growing job categories, with **AI and machine learning specialists** projected to see a **40% growth rate** over the next five years globally.
   - Source: World Economic Forum Report

These data sources confirm that graduates from the MS in Business Analytics and AI Innovation

program will be well-positioned for in-demand roles across a wide range of industries, making this program highly relevant to current and future workforce needs.

10. Other relevant societal needs:

The proposed **MS in Business Analytics and AI Innovation** program addresses several broader societal needs beyond workforce demand, by contributing to the ethical, inclusive, and strategic use of emerging technologies in modern society.

1. Ethical and Responsible AI Use:

As artificial intelligence becomes more integrated into everyday life—from healthcare and finance to education and public services—there is a growing societal need for professionals who understand the ethical implications of AI and data use. This program emphasizes ethical decision-making, fairness, and accountability, preparing graduates to develop and deploy AI systems responsibly.

2. Digital Equity and Innovation Accessibility:

There is a pressing need to ensure that technological innovation benefits diverse communities and does not widen existing digital divides. The program promotes inclusive access to advanced data and AI training, enabling more equitable participation in the digital economy, especially for historically underrepresented groups.

11. An assessment of the required resources and the campus commitment to allocating those resources: Provide a narrative description of resources that will be needed at initiation, after three years, and after five years. **Note:** Approval of this proposal by campus entities represents the campus commitment to allocating these resources.

Initial Stage

At the launch of the MS in Business Analytics and AI Innovation program, foundational resources will be required to support program initiation, including faculty support, curriculum development, infrastructure, and administrative setup. These resources include:

- **Faculty**: The Department of Information Systems and Operations Management at CSUDH has a qualified pool of faculty with expertise in analytics, artificial intelligence, information systems, and innovation strategy. These faculty members will teach courses, mentor students, and engage in applied research aligned with the program's mission.
- **Curriculum Development**: Resources will be allocated to develop a rigorous, interdisciplinary curriculum that reflects current industry practices in business analytics, AI applications, and ethical innovation.
- **Infrastructure**: Investments will be made in computing labs, analytics and AI software, and access to cloud-based platforms and datasets. This will ensure students have the tools needed for hands-on learning and applied research.
- **Marketing and Recruitment**: Funds will support targeted marketing campaigns, recruitment events, and digital outreach to attract a diverse and qualified applicant pool.
- **Administrative Support**: Administrative staff will be assigned to manage admissions, student services, program operations, and communication efforts, ensuring smooth coordination from the outset.

After Three Years

As the program becomes more established and student enrollment increases, additional resources will be needed to ensure academic excellence and student success:

- **Faculty Development**: Continued support for faculty training in emerging technologies, AI tools, and pedagogical innovation will enhance instructional quality and research impact.
- **Student Services**: Expansion of student support—including academic advising, career services, and peer mentoring—will ensure personalized attention and promote student retention and satisfaction.
- **Industry Engagement**: Resources will support the development of industry partnerships to create opportunities for internships, capstone projects, and guest lectures, ensuring real-world learning experiences.
- **Curriculum Enhancement**: Ongoing review and revision of course offerings will be supported to keep pace with rapid technological advancements and evolving employer needs.

After Five Years

Sustained resource commitment will be essential to maintain the program's competitive edge and strategic relevance in a dynamic global environment:

- **Research Infrastructure**: Funding will support advanced research labs, interdisciplinary faculty projects, and participation in conferences and academic collaborations.
- **Global Outreach**: Efforts will be made to expand international collaborations, including global capstones, exchange programs, and virtual global classrooms.
- **Scholarships and Endowment**: Establishing scholarship opportunities will help attract top talent, support diversity, and reduce financial barriers for underrepresented students.
- **Program Innovation**: Continuous investment in new pedagogies, AI tools, and interdisciplinary modules will support ongoing innovation and adaptation.
- **Assessment and Accreditation**: Resources will support regular program assessment, accreditation reviews, and data-driven quality improvement efforts to ensure accountability and effectiveness.

12. a. Description of Campus Approval Process

- Initial Proposal Submission
- Departmental Review
- College Review
- University-Level Review
- Final Approval

b. Approval Signatures

- Department Chair
- College Dean
- University Provost or Vice President of Academic Affairs
- University President or Chancellor

College of Education

No submissions received.

College of Health, Human Services, & Nursing

No submissions received.

College of Natural & Behavioral Sciences

No submissions received.

University Library

No submissions received.