BUSINESS ANALYTICS AND APPLIED AI GRADUATE MAJOR (MS)

This program is available at the following locations:

- **Corvallis**
- **Ecampus**

The Master of Science in Business Analytics and Applied AI prepares students to harness the power of data and AI technologies to solve current and emerging complex business challenges. This interdisciplinary program blends business strategy with cutting-edge analytical techniques and AI-driven solutions, equipping graduates with the skills needed to extract and communicate meaningful insights from data. Students will learn to implement AI tools, predictive modeling, and machine learning algorithms to drive business innovation, optimize operations, and improve decision-making processes. The program offers concentrations in the key areas Supply Chain Analytics, Environmental Management, Marketing, Finance, Information Systems, as well as a wide range of elective offerings, allowing students to specialize in their chosen area of interest.

Throughout the program, students will engage in hands-on projects and real-world case studies to apply their knowledge in practical settings. By integrating data science, AI, and business acumen, graduates will be prepared to lead data-driven initiatives and navigate the complexities of today's fast-evolving business landscape. Additionally, the program emphasizes ethical considerations in AI applications, ensuring that graduates are equipped to handle both the technical and societal implications of these powerful technologies. The comprehensive curriculum addresses the growing demand for professionals who can seamlessly integrate AI into strategic business operations across industries.

Major Code: 2020

Upon successful completion of the program, students will meet the following learning outcomes:

- Conduct research or produce some other form of creative work.
- Demonstrate mastery of subject material.
- Conduct scholarly or professional activities in an ethical manner.
- Develop advanced predictive models using machine learning algorithms to forecast business trends and outcomes, demonstrating proficiency in applying regression, classification, and clustering techniques.
- Evaluate data-driven solutions by assessing the reliability, validity, and ethical implications of applying artificial intelligence techniques in business contexts.
- Analyze complex datasets using advanced exploratory methods and data visualization techniques, extracting actionable insights to support strategic decision-making in various industries.
- Design and implement optimized algorithms for specific business problems, leveraging techniques such as deep learning, natural language processing, and large language modeling to improve operational efficiency and performance.

Code	Title	Credits
Required Core		
BA 514	OPERATIONS MANAGEMENT	3
BANA 560	BUSINESS ANALYTICS AND AI FOR COMPETITIVE ADVANTAGE	3
BANA 570	DATA MANAGEMENT	3
BANA 571	DATA EXPLORATION AND VISUALIZATION	3
BANA 572	MACHINE LEARNING AND TEXT MINING FOR BUSINESS	3
BANA 573	DESIGNING AI PRODUCTS AND SERVICES FOR BUSINESS	3
BANA 574	NEURAL NETWORKS AND DEEP LEARNING FOR BUSINESS	3
BANA 577	INTEGRATED BUSINESS ANALYTICS PROJECT	3
Electives		
Select a minimum of 21 credits from the following: [1]		21
Business Fundamentals		
BA 513	BUSINESS LEGAL ENVIRONMENT	
BA 515	MANAGERIAL DECISION TOOLS	
BA 516	CREATING VALUE IN EXCHANGE	
BA 517	MARKETS AND VALUATION	
Supply Chain Analytics		
BA 555	PRACTICAL BUSINESS ANALYSIS	
BA 561	SUPPLY CHAIN MANAGEMENT	
SCLM 550	SUPPLY AND SOURCING MANAGEMENT	
SCLM 551	SERVICE OPERATIONS MANAGEMENT	
SCLM 553	SUPPLY CHAIN ANALYTICS	
SCLM 557	GLOBAL LOGISTICS MANAGEMENT: FUNDAMENTALS AND STRATEGY	
SCLM 559	SUPPLY CHAIN AND LOGISTICS MANAGEMENT CAPSTONE	
Environmental Management		
CCE 522	GREEN BUILDING MATERIALS	
ENSC 506	PROJECTS	
ENSC 515	ENVIRONMENTAL PERSPECTIVES AND METHODS	
ENSC 516	USING BEST PRACTICES IN ENVIRONMENTAL PROJECT MANAGEMENT	
ENSC 517	ENVIRONMENTAL MANAGEMENT AND SUSTAINABILITY ASSESSMENT	
FES 560	GREEN INFRASTRUCTURE	
GEOG 552	ENVIRONMENTAL ASSESSMENT	
HEST 512	MULTIDISCIPLINARY CASE STUDIES IN HUMANITARIAN ENGINEERING, SCIENCE AND TECHNOLOGY	
Finance		
BA 528	FINANCIAL AND COST ANALYSIS	
BA 540	CORPORATE FINANCE	
FIN 540	FIXED INCOME SECURITIES	
FIN 541	FINANCIAL INSTITUTIONS	
FIN 542	INVESTMENTS	
FIN 543	PORTFOLIO MANAGEMENT	
FIN 544	FINANCIAL RISK MANAGEMENT	
FIN 545	INTERNATIONAL FINANCIAL MANAGEMENT	
FIN 546	ADVANCED CORPORATE FINANCE	
FIN 547	COMMERCIAL BANKING	
FIN 548	INTERNATIONAL FINANCIAL MARKETS	
FIN 549	MERGERS AND ACQUISITIONS	
FIN 560	PRINCIPLES OF FINANCIAL PLANNING	
Marketing		
BA 590	MARKETING MANAGEMENT	
MRKT 584	DIGITAL MARKETING PLATFORMS	
MRKT 585	SEARCH MARKETING	
MRKT 586	CUSTOMER RELATIONSHIP MANAGEMENT	
MRKT 588	PROFESSIONAL SALES	
MRKT 589	PERSONAL SELLING SKILLS AND TECHNIQUES	
MRKT 592	CONSUMER BEHAVIOR	

	MRKT 593	INTEGRATED MARKETING COMMUNICATIONS
	MRKT 595	RETAIL MANAGEMENT
	MRKT 597	GLOBAL MARKETING
Information Systems		
	ACTG 520	IT AUDITING
	BA 572	ADVANCED INFORMATION SYSTEMS
	BIS 571	BUSINESS TELECOMMUNICATIONS AND NETWORKING
	BIS 572	INFORMATION SYSTEMS SECURITY
Total Credits		**45**

[1] Other electives may be accepted with advisor approval

Major Code: 2020