

## **Proposal for Concurrent Degree Program: Bachelor of Science in Business Analytics and Management Information Systems / Master of Business Analytics**

### **Name of the programs/Degrees:**

The Department of Information Systems and Business Analytics at the Ivy College of Business seeks approval for a concurrent Master of Business Analytics (MBAN) degree for undergraduate students in the Bachelor of Science in Business Analytics (BUSAN) and Management Information Systems (MIS).

### **Name of the department(s) which administer(s) the program:**

Department of Information Systems and Business Analytics, Ivy College of Business

### **Rationale for the concurrent degree program:**

The Master of Business Analytics program is an attractive graduate program for high-achieving undergraduate students seeking further specialization in the field of business analytics. While a wide variety of business and non-business majors are enrolled in the Master of Business Analytics, Business Analytics and Management Information Systems graduates are an especially well-fitting demographic to enroll in the Master of Business Analytics program.

Ivy recruiters and the graduate staff routinely receive inquiries from Ivy Undergraduate students wanting to get a head start on our specialized master's degree programs while completing their undergraduate degree.

### **The concurrent degree benefits students in multiple ways:**

1. There is great industry demand for specialized knowledge in business analytics.
  - The undergraduate major in business analytics is currently our fastest growing major (by Fall 2022 enrollment).
  - While the Master of Business Analytics used to be exclusively open to working professionals, this fall the college began admitting residential full-time students. With very little time to promote the program, we have received 78 applications for Spring 2023 entry.
  - While employment outcomes are not available yet, the Master of Science in Information Systems could be used for comparison. 100% of our Master of Science in Information Systems graduates are employed six months after graduation. The average salary of these graduates is \$74,103. By comparison, undergraduate management information systems and business analytics graduates have an average starting salary of \$62,477 and \$ 61,045 respectively (*preliminary, confidential*).
2. Credit sharing with the undergraduate degree decreases the overall credit burden by six graduate credits making the graduate degree more economical (24 stand-alone credits).
3. The ability to start the degree while completing undergraduate coursework might shorten the overall time to completion. Given the sometimes-significant amount of transfer coursework that undergraduate students bring in from high school, students might be able to attain the additional credential in one or two semesters of additional coursework. In the sample plan attached to our proposal, students are able to finish their graduate degree by taking 12 credits of graduate coursework per semester and one undergraduate elective. Realistically, many

students, will only have graduate coursework left in the last two semesters of the sample plan. Given the variety and frequency of courses offered in the Master of Business Analytics program, students wanting to finish the program in one to two additional semesters will be able to do so. This is in line with our other 30-credit concurrent program, the Master of Accounting, where students graduate in two semesters, on average.

Employment outcomes, credit sharing, and potentially lower time to completion make a strong case for offering this concurrent plan to our students.

### **Admission procedures and requirements**

The concurrent Master of Business Analytics is designed to be completed in two semesters. In the first four years, students' progress through their prescribed course requirements. Their final year is comprised of the remaining business analytics / management information systems major coursework and graduate-level Master of Business Analytics classes.

The appendixes to this document illustrate sample two-semester study plans for the Master of Business Analytics concurrent program under the 2021-2022 Catalog. The variety and frequency of courses offered in the Master of Business Analytics program, allow students to finish the program in two semesters, if they so desire. While the program can be completed in two semesters, the actual time for completion may be longer depending upon semester course loads, coops/internships, study abroad experiences, and course sequencing.

Degree requirements for the undergraduate degree in Business Analytics and Management Information Systems, and the Master of Business Analytics are unchanged in the proposed concurrent degree. The bachelor of science in Business Analytics / Management Information Systems and the Master of Business Analytics require a minimum of 122 credit hours, and 30 credit hours, respectively. The concurrent program requires a minimum of 146 credit hours including six credit hours applied toward both the BS in Business Analytics / Management Information Systems and the Master of Business Analytics degrees. The Master of Business Analytics program requires no thesis.

The MBAN is a rigorous 2-semester program, and admission is selective. Each candidate is evaluated first based on transcripts, resume, and the student submitted essays. In addition, applicants must also satisfy the Graduate College admissions requirements: English Placement Test and a 3.00 minimum GPA.

Business analytics / Management Information Systems undergraduate students interested in the concurrent degree program must apply to the MBAN degree no later than July 1 the summer prior to their senior year. MBAN admission is considered for fall Semester and Spring entry.

### **The following application materials are required:**

Application for an ISU Undergraduate Student Wishing to Pursue a Concurrent Graduate Degree

- Official transcripts
- Letters of recommendation (2)
- Essays (1)
- Resume

**Financial Assistance**

Depending upon funding availability, scholarships may be available to admitted MBAN students who meet the eligibility requirements. Graduate assistantships are extremely competitive but may be awarded to highly qualified students in the fifth year of concurrent degree program.

**Expected enrollment**

20 students annually.

**Proposal Contact**

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Director of Graduate Education for the Master of Business Analytics, Ivy College of Business  
[ruichen@iastate.edu](mailto:ruichen@iastate.edu)

Dr. Valentina Salotti  
Associate Dean for Academic Affairs and Diversity, Ivy College of Business  
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## Academic Program Approval Voting Record

This document is to be appended as the last page of the proposal for any new or revised academic program to record the successive votes of approval as the proposal moves through its required review and approval steps. Consult Faculty Handbook Section 10.8 or the Faculty Senate Curriculum Committee website for information regarding Committee review and voting requirements for each action.

Curricular Action: (check appropriate boxes below)

1.  New Program     Name Change     Discontinuation     Concurrent Degree for: MIS  
BUSAN and MBAN

2.  Undergraduate Major    Graduate Major     Undergraduate Minor    Graduate Minor  
 Undergraduate Certificate     Graduate Certificate     Other: Dual-Degree

3. Name of Proposed Change: Concurrent MBAN with BUSAN and MIS

4. Name of Contact Person: Valentina Salotti e-mail address: [vsalotti@iastate.edu](mailto:vsalotti@iastate.edu)

5. Primary College: Ivy College of Business Secondary College:

6. Involved Department(s): Business Administration, Information System and Business Analytics, Ivy College of Business

### Voting record for this curricular action:

Voting Body	Votes			Date of Vote
	For	Against	Abstain	
ISBA (Information Systems & Business Analytics) Curriculum Committee	17	1	0	8/19/2022
College Curriculum Committee	6	0	0	9/26/2022
College Approval Vote	81	3	0	10/21/2022
Graduate Council				

IOWA STATE UNIVERSITY  
Ivy College of Business

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Semester 1: Fall	Credits	Semester 2: Spring	Credits
BUSAD 102/103: Orientation/Business Learning Team	1	ECON 102: Principles of Macroeconomics	3
ECON 101: Principles of Microeconomics	3	STAT 226: Introduction to Business Statistics I	3
COM S 113: Intro to Spreadsheets and Databases	3	PHIL 230: Moral Theory and Practice	3
ENGL 150: Critical Thinking and Communication	3	ACCT 284: Financial Accounting	3
MATH 150: Discrete Math for Business	3	INT'L/GLOBAL: Select from Approved List	3
LIB 160: Introduction to College Level Research	1	BUSAD 203: Professional Development in Business	1
<b>TOTAL</b>	<b>14</b>	<b>TOTAL</b>	<b>16</b>
Semester 3: Fall	Credits	Semester 4: Spring	Credits
ACCT 285 (CORE): Managerial Accounting	3	MIS 301 (CORE): Management Information Systems	3
ACCT 301 (CORE): The Accounting Cycle (if taking ACCT 384)	1	STAT 326: Introduction to Business Statistics II	3
DS 201: Introduction to Data Science	3	SP CM 212: Fundamentals of Public Speaking	3
MATH 151: Calculus for Business	3	NATURAL SCIENCE: Select from Approved List	3
ENGL 250: Written, Oral, Visual & Electronic Comp.	3	BUSINESS CORE: Select from Business Core List	3
HUM/SOCIAL SCI: Select from Approved List	3		
<b>TOTAL</b>	<b>15-16</b>	<b>TOTAL</b>	<b>15</b>
Semester 5: Fall	Credits	Semester 6: Spring	Credits
MIS 320 or ACCT 384: Database Mgmt Sys. OR Acct. Infor Sys. & Analy.	3	MIS 436: Introduction to Business Analytics	3
BUSINESS CORE: Select from Business Core List	3	BUSINESS CORE: Select from Business Core List	3
BUSINESS CORE: Select from Business Core List	3	BUSINESS CORE: Select from Business Core List	3
ACCT 215: Legal Environment of Business	3	GLOBAL: Select from Approved List	3
US Diversity/H-SS: Select from Approved List	3	ENGL 302: Business Communication	3
ELECTIVE (1 cr if taking ACCT 301, 2 crs if not)	1-2		
<b>TOTAL</b>	<b>16-17</b>	<b>TOTAL</b>	<b>15</b>

**Concurrent B.S. Business Analytics and Master of Business Analytics  
Program Plan**

*Draft as of 6-13-22*

<b>Semester 7: Fall</b>	<b>Credits</b>	<b>Semester 8: Spring (Apply for MBAN)</b>	<b>Credits</b>
MIS 446: Advanced Business Analytics	3	MGMT 478: Strategic Management	3
BUSINESS CORE: Select from Business Core List	3	ELECTIVE	9
BU AN Elective	3		
HUM/SOCIAL SCI: Select from Approved List	3		
<b>TOTAL</b>	<b>12</b>	<b>TOTAL</b>	<b>12</b>
<b>Semester 9: Fall (Begin concurrent program)</b>	<b>Credits</b>	<b>Semester 10: Spring</b>	<b>Credits</b>
BU AN 400-level Elective	3	BU AN 400-level Elective	3
MBAN Elective: STAT 528: Visual Business Analytics	3	MBAN Core: MIS 556: Business Analytics Capstone	3
MBAN Elective: MIS 548: Applications of Machine Learning	3	MBAN Core: MIS 532: Business Software Development	3
MBAN Elective: MIS 515: Big Data for Business	3	MBAN Elective: FIN 541: Analytics in Finance	3
MBAN Elective: COM S 535: Algorithms for Large Data Sets	3	MBAN Elective: STAT 572: Introduction to Time Series	3
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>15</b>
<b>Program Notes</b>			
<b>BS BU AN_MBAN Concurrent Program Summary</b>	<b>Credits</b>		
BS BU AN	116		
MBAN Core	6		
MBAN Electives	18		
BS BU AN/MBAN shared credit	6		
<b>TOTAL</b>	<b>146</b>		
<i>BUSAN is a STEM designated program</i>			
<i>Optional Practical Training (OPT) work permit for up to 36 months after graduation</i>			

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BS MIS/MBAN Sample Program Plan

Semester 1: Fall	Credits	Semester 2: Spring	Credits
BUSAD 102/103: Orientation/Business Learning Team	1	ECON 102: Principles of Macroeconomics	3
ECON 101: Principles of Microeconomics	3	STAT 226: Introduction to Business Statistics I	3
COM S 113: Intro to Spreadsheets and Databases	3	PHIL 230: Moral Theory and Practice	3
ENGL 150: Critical Thinking and Communication	3	ACCT 284: Financial Accounting	3
MATH 150: Discrete Math for Business	3	INT'L/GLOBAL: Select from Approved List	3
LIB 160: Introduction to College Level Research	1	BUSAD 203: Profesional Development in Business	1
<b>TOTAL</b>	<b>14</b>	<b>TOTAL</b>	<b>16</b>
Semester 3: Fall	Credits	Semester 4: Spring	Credits
ACCT 285 (CORE): Managerial Accounting	3	MIS 307: Intermediate Business Programming	3
MIS 301: Management Information Systems	3	SP CM 212 or 312: Fundamentals of Public Speaking	3
MIS 207: Fundamentals of Computer Programming	3	NATURAL SCIENCE: Select from Approved List	3
MATH 151: Calculus for Business	3	HUM/SOC SCI: Select from Approved List	3
ENGL 250: Written, Oral, Visual & Electronic Comp.	3	General Elective	3
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>15</b>
Semester 5: Fall	Credits	Semester 6: Spring	Credits
MIS 310: Information Systems Analysis	3	MIS 320: Database Management Systems	3
BUSINESS CORE: Select from Business Core List	3	MIS 340: Project Management	3
BUSINESS CORE: Select from Business Core List	3	BUSINESS CORE: Select from Business Core List	3
ACCT 215: Legal Environment of Business	3	BUSINESS CORE: Select from Business Core List	3
US Diversity/H-SS: Select from Approved List	3	ENGL 302: Business Communication	3
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>15</b>

**Concurrent B.S. Management Information Systems and Master of Business Analytics  
Program Plan**

*Draft as of 6-13-22*

<b>Semester 7: Fall</b>	<b>Credits</b>	<b>Semester 8: Spring (Apply for MBAN)</b>	<b>Credits</b>
General Elective	2	MGMT 478: Strategic Management	3
BUSINESS CORE: Select from Business Core List	3	HUM/SOCIAL SCI: Select from Approved List	3
BUSINESS CORE: Select from Business Core List	3	General Elective	3
HUM/SOCIAL SCI: Select from Approved List	3	General Elective	3
INT'L/GLOBAL: Select from Approved List	3		
<b>TOTAL</b>	<b>14</b>	<b>TOTAL</b>	<b>12</b>
<b>Semester 9: Fall (Begin concurrent program)</b>	<b>Credits</b>	<b>Semester 10: Spring</b>	<b>Credits</b>
MIS 400-level Elective: MIS 436 Business Analytics Foundations	3	MIS 400-level Elective	3
MBAN Elective: STAT 528: Visual Business Analytics	3	MBAN Core: MIS 556: Business Analytics Capstone	3
MBAN Elective: MIS 548: Applications of Machine Learning	3	MBAN Core: MIS 532: Business Software Development	3
MBAN Elective: MIS 515: Big Data for Business	3	MBAN Elective: FIN 541: Analytics in Finance	3
MBAN Elective: COM S 535: Algorithms for Large Data Sets	3	MBAN Elective: STAT 572: Introduction to Time Series	3
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>15</b>
<b>Program Notes</b>			
<b>BS MIS_MBAN Double Degree Program Summary</b>	<b>Credits</b>		
BS BU AN	116		
MBAN Core	6		
MBAN Electives	18		
BS MIS/MBAN shared credit	6		
<b>TOTAL</b>	<b>146</b>		
<i>BUSAN is a STEM designated program</i>			
<i>Optional Practical Training (OPT) work permit for up to 36 months after graduation</i>			
<i>*If STAT 326 is not taken in BS MIS, then STAT 526 must be taken in MBAN</i>			