NORTHEASTERN STATE UNIVERSITY

NEW PROGRAM

New Certificate: Mathematical Statistics

CIP: 270101

Embedded in: Mathematics, B.S. (057)

Proposed Curriculum
MATH 2614 Calculus I MATH 3513 Statistical Methods MATH 3623 Mathematical Statistics MATH 3983 Linear Algebra Certificate total: 12 hours

DEGREE PROGRAM MODIFICATIONS

Bachelor of Business Administration in Business Administration

OSRHE Code: 012

The curriculum modification will do the following:

- Add the entrepreneurship option to the Business Administration BBA and sunset the Entrepreneurship major (see below under program suspensions).
- Add TECH prefix courses to elective section in each option.

Current Curriculum	Proposed Curriculum
General Education – 46 hours	**General Education – 46 hours**
Business Core – 30 hours ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing	**Business Core – 30 hours** ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing

Business Administration Major Core - 12 hours	*Business Administration Major Core - 12 hours*
BADM 3253 Management Analysis and Control IBUS 4843 International Business MGMT 3213 Principles of Operations Management MGMT 3323 Creativity, Innovation, & Opportunity	BADM 3253 Management Analysis and Control IBUS 4843 International Business MGMT 3213 Principles of Operations Management MGMT 3323 Creativity, Innovation, & Opportunity
Select one of the following options - 21 hours: **Business Analytics** BADM 4203 Business Analytics ECON 2313 Principles of Macroeconomics IS 4293 Business Database Management Systems MGMT 4103 Business Decision Analysis MKT 4103 Marketing Measurement Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM electives	*Select one of the following options - 21 hours):* **Business Analytics** BADM 4203 Business Analytics ECON 2313 Principles of Macroeconomics IS 4293 Business Database Management Systems MGMT 4103 Business Decision Analysis MKT 4103 Marketing Measurement Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **/ TECH** electives
General Business ECON 2213 Principles of Microeconomics or ECON 2313 Principles of Macroeconomics MGMT 3253 Organizational Behavior MGMT 3843 Business Ethics Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM electives Additional 6 hours of 3000/4000 Level Business Electives	**General Business** ECON 2213 Principles of Microeconomics or ECON 2313 Principles of Macroeconomics MGMT 3253 Organizational Behavior MGMT 3843 Business Ethics Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **/ TECH** electives Additional 6 hours of 3000/4000 Level Business Electives
Health Care Management ECON 2213 Principles of Microeconomics or ECON 2313 Principles of Macroeconomics HCA 3313 Healthcare Reimbursement Strategies HCA 4223 Quality Management and Patient Safety HCA 4533 Group Practice Management Additional 3 hours of 3000/4000 level HCA elective Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM electives	**Health Care Management** ECON 2213 Principles of Microeconomics or ECON 2313 Principles of Macroeconomics HCA 3313 Healthcare Reimbursement Strategies HCA 4223 Quality Management and Patient Safety HCA 4533 Group Practice Management Additional 3 hours of 3000/4000 level HCA elective Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **/ TECH** electives

Major Total – 33 hours Total Business Core & Major – 63 hours Open Electives - 11 hours Degree Total – 120 Hours	**Entrepreneurship** **ECON 2213 Principles of Microeconomics** **[left]** **or ECON 2313 Prin of Macroeconomics** **MKT 4263 Digital Media Marketing** **MGMT 4543 Small Business Management** **MGMT 4573 Digital Business** **[after]** **9 hours of 3000-400 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM / TECH / FIN / ACCT electives** Major Total – 33 hours Total Business Core & Major – 63 hours Open Electives - 11 hours Degree Total – 120 Hours

Bachelor of Business Administration in Health Organizations Administration

OSRHE Code: 004

The curriculum modification will do the following:

- Delete Health Informatics Option.
- Move the Healthcare Administration option requirements into the HOA core requirements.

Current Curriculum	Proposed Curriculum
General Education – 46 hours	**General Education – 46 hours**
Business Core – 30 hours ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing	**Business Core – 30 hours** ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing

HOA Core Requirements - 12 hours	HOA Core Requirements – 33 hours
HCA 3213 Public Health & Global Initiatives in Health Care HCA 3313 Healthcare Reimbursement Strategies HCA 4223 Quality Management and Patient Safety MGMT 4113 Human Resource Management ***Select one of the following options (21 hours):*** **~~Healthcare Administration~~** ~~ECON 2213 - Principles of Microeconomics~~ ~~**or** ECON 2313 - Principles of Macroeconomics~~ ~~HCA 4013 - Leadership, Policy and Ethics~~ ~~HCA 4533 - Group Practice Management~~ ~~MGMT 3213 - Principles of Operations Management~~ ~~Additional 3 hours 3000/4000 level electives~~ ~~Additional 6 hours 3000/4000 level BADM / HCA / MGMT electives~~ **~~Health Informatics~~** ~~ECON 2213 - Principles of Microeconomics~~ ~~**or** ECON 2313 - Principles of Macroeconomics~~ ~~HCA 4323 - Health Information Analytics~~ ~~IS 3063 - Principles of Information Systems~~ ~~IS 4293 - Business Database Management Systems~~ ~~MGMT 4103 - Business Decision Analysis~~ ~~MGMT 4143 - Project Management~~ ~~Additional 3 hours 3000/4000 level BADM / HCA / MGMT electives~~ Major Total – 33 hours Total Business Core & Major – 63 hours Open Electives - 11 hours Degree Total – 120 Hours	HCA 3213 Public Health & Global Initiatives in Health Care HCA 3313 Healthcare Reimbursement Strategies HCA 4223 Quality Management and Patient Safety MGMT 4113 Human Resource Management **ECON 2213 Principles of Microeconomics** **or** **ECON 2313 Principles of Macroeconomics** **HCA 4013 Leadership, Policy and Ethics** **HCA 4533 Group Practice Management** **MGMT 3213 Principles of Operations Management** **Additional 9 hours of 3000/4000 level Business Electives** Major Total – 33 hours Total Business Core & Major – 63 hours Open Electives - 11 hours Degree Total – 120 Hours

Bachelor of Business Administration in Information Systems

OSRHE Code: 123

The curriculum modification will do the following:

- Add TECH prefix courses to the Information Systems options.

Current Curriculum	Proposed Curriculum
General Education – 46 hours	**General Education – 46 hours**
Business Core – 30 hours ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing	**Business Core – 30 hours** ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing
Information Systems Core - 21 hours IS 3063 Principles of Information Systems IS 3183 Data Telecommunications IS 3513 Introduction to Information Security IS 3533 Cyber Security Policy and Technologies IS 3553 System and Network Administration IS 4293 Business Database Management Systems IS 4313 Organizational Information Management	**Information Systems Core - 21 hours** IS 3063 Principles of Information Systems IS 3183 Data Telecommunications IS 3513 Introduction to Information Security IS 3533 Cyber Security Policy and Technologies IS 3553 System and Network Administration IS 4293 Business Database Management Systems IS 4313 Organizational Information Management
Programming Course - 3 hours IS 3023 Object Based Visual Programming OR IS 3043 Web Programming	**Programming Course - 3 hours** IS 3023 Object Based Visual Programming OR IS 3043 Web Programming
IS Electives - 6 hours Select 6 hours from the following courses. IS 3053 Website Design and Management IS 3633 Cyber Security in Business and Industry IS 4263 Agile Project Management IS 4533 Cyber Penetration Testing	**IS Electives - 6 hours** Select 6 hours from the following courses. IS 3053 Website Design and Management IS 3633 Cyber Security in Business and Industry IS 4263 Agile Project Management IS 4533 Cyber Penetration Testing

IS 4553 Ethical Hacking MGMT 3213 Principles of Operations Management **Additional 3 hours** 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM electives. Major Total – 33 hours Total Business Core & Major – 63 hours Open Electives - 11 hours Degree Total – 120 Hours	IS 4553 Ethical Hacking MGMT 3213 Principles of Operations Management **Additional 3 hours** 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **/ TECH** electives. Major Total – 33 hours Total Business Core & Major – 63 hours Open Electives - 11 hours Degree Total – 120 Hours

Bachelor of Business Administration in Management

OSRHE Code: 054

The curriculum modification will do the following:

- Add Operations and Supply Chain Management option and sunset the Supply Chain Management major (see below under program suspensions).
- Add TECH prefix courses to elective section in designated options.
- Remove SCM 3733 as a course selection in the General Management option.

Current Curriculum	Proposed Curriculum
General Education – 46 hours **Business Core – 30 hours** ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing **Management Core - 18 hours** ECON 2313 Principles of Macroeconomics	**General Education – 46 hours** **Business Core – 30 hours** ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing **Management Core - 18 hours** ECON 2313 Principles of Macroeconomics

MGMT 3023 Diversity in a Global Marketplace MGMT 3183 Principles of Management MGMT 3213 Principles of Operations Management MGMT 4113 Human Resource Management MGMT 4323 Quality Management *Select one of the following options – 15 hours:* **General Management** MGMT 3843 - Business Ethics Choose 6 hours from the following: BADM 3253 - Management Analysis and Control BADM 3351 - Professional Development BADM 3361 - Career Development BADM 3371 - Business Etiquette MGMT 3273 - Global Business Design MGMT 3313 - Managing Across Borders MGMT 3323 - Creativity, Innovation, & Opportunity MGMT 4143 - Project Management MGMT 4930 - Certification Preparation SCM 3553 - Supply Management SCM 3733 - Lean Concepts in Organizations Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **Human Resource Management** MGMT 4163 - Compensation Management MGMT 4223 - Negotiation and Labor Issues MGMT 4313 - Strategic Staffing Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM electives **Project Management** MGMT 4143 - Project Management MGMT 4263 - Agile Project Management MGMT 4613 - Applied Project Management MGMT 4930 - Certification Preparation (3 credit hours)	MGMT 3023 Diversity in a Global Marketplace MGMT 3183 Principles of Management MGMT 3213 Principles of Operations Management MGMT 4113 Human Resource Management MGMT 4323 Quality Management *Select one of the following options – 15 hours:* **General Management** MGMT 3843 - Business Ethics Choose 6 hours from the following: BADM 3253 - Management Analysis and Control BADM 3351 - Professional Development BADM 3361 - Career Development BADM 3371 - Business Etiquette MGMT 3273 - Global Business Design MGMT 3313 - Managing Across Borders MGMT 3323 - Creativity, Innovation, & Opportunity MGMT 4143 - Project Management MGMT 4930 - Certification Preparation SCM 3553 - Supply Management ~~SCM 3733 - Lean Concepts in Organizations~~ Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **/** **TECH** electives **Human Resource Management** MGMT 4163 - Compensation Management MGMT 4223 - Negotiation and Labor Issues MGMT 4313 - Strategic Staffing Additional 6 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **/** **TECH** electives **Operations and Supply Chain Management** **MGMT 3213 Principles of Operations Management** **MGMT 4323 Quality Management**

	SCM 3553 Supply Management **SCM 4533 International Supply Chain Management** **MGMT 4103 Business Decision Analysis**
Additional 3 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM Major Total – 33 hours Total Business Core & Major – 63 hours Open Electives - 11 hours Degree Total – 120 Hours	**Project Management** MGMT 4143 - Project Management MGMT 4263 - Agile Project Management MGMT 4613 - Applied Project Management MGMT 4930 - Certification Preparation (3 credit hours) Additional 3 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM / **TECH** electives. Major Total – 33 hours Total Business Core & Major – 63 hours Open Electives - 11 hours Degree Total – 120 Hours

Bachelor of Business Administration in Marketing

OSRHE Code: 055

The curriculum modification will do the following:

- Add Hospitality and Tourism Management (HTM) option and sunset the HTM major (see below under program suspensions).
- Add TECH prefix courses to elective section in each option.

Current Curriculum	Proposed Curriculum
General Education – 46 hours	**General Education – 46 hours**
Business Core – 30 hours ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing	**Business Core – 30 hours** ACCT 2103 Introduction to Financial Accounting BADM 3003 Experiential and Career Seminar BADM 3933 Business Statistics BLAW 3003 Business Law I FIN 3213 Principles of Finance IS 3083 Spreadsheet Analysis IS 3113 Business Communications MGMT 4013Essential Workplace Skills MGMT 4213 Business Strategy/Policy MKT 3213 Principles of Marketing
Marketing Core - 15 hours ECON 2213 Principles of Microeconomics MKT 3253 Integrated Marketing Communications MKT 4333 Marketing Research MKT 4423 Buyer Behavior MKT 4543 Marketing Management	**Marketing Core - 15 hours** ECON 2213 Principles of Microeconomics MKT 3253 Integrated Marketing Communications MKT 4333 Marketing Research MKT 4423 Buyer Behavior MKT 4543 Marketing Management
Select one of the following options – 18 hours:	*Select one of the following options – 18 hours:*
General Marketing Complete 9 hours from the following: MKT 3423 Sales Management MKT 3523 Service Industry Management MKT 3553 Supply Management MKT 3613 Sports Marketing MKT 4263 Digital Media Marketing MKT 4343 International Marketing Additional 9 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM electives	**General Marketing** Complete 9 hours from the following: MKT 3423 Sales Management MKT 3523 Service Industry Management MKT 3553 Supply Management MKT 3613 Sports Marketing MKT 4263 Digital Media Marketing MKT 4343 International Marketing Additional 9 hours of 3000/4000 level BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **/ TECH** electives
Digital Marketing Option MGMT 4573 Digital Business MKT 4103 Marketing Measurement MKT 4263 Digital Media Marketing Complete 6 hours from the following: IS 3053 Website Design and Management	**Digital Marketing Option** MGMT 4573 Digital Business MKT 4103 Marketing Measurement MKT 4263 Digital Media Marketing Complete 6 hours from the following: IS 3053 Website Design and Management

M S 3203 Digital Darkroom	M S 3203 Digital Darkroom
M S 3333 Multimedia Writing	M S 3333 Multimedia Writing
M S 3513 Media Management & Planning	M S 3513 Media Management & Planning
MKT 4310 Seminar in Marketing	MKT 4310 Seminar in Marketing
MKT 4343 International Marketing	MKT 4343 International Marketing
Additional 3 hours of BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM electives	Additional 3 hours of BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM **/ TECH** electives
Major Total – 33 hours	**Hospitality and Tourism Management**
Total Business Core & Major – 63 hours	**HTM 3113 Gaming and Hotel Operations**
Open Electives - 11 hours	**MGMT 3213 Principles of Operations Management**
Degree Total – 120 Hours	**HTM 3323 Meeting and Event Management**
	MKT 3523 Service Industry Management
	HTM 3623 Principles of Tourism Management
	3 hours of BADM / HCA / HTM / IBUS / IS / MGMT / MKT / SCM / TECH electives
	Major Total – 33 hours
	Total Business Core & Major – 63 hours
	Open Electives - 11 hours
	Degree Total – 120 Hours

Bachelor of Science in Computer Science

OSRHE Code: 100

Minor in Computer Science

The curriculum modification will do the following:

- Add CS 4xx3 Machine Learning to the group B elective list for the computer science major and minor

Current Major Curriculum	Proposed Major Curriculum
General Education – 46 hours	**General Education – 46 hours**
Major Requirements – 34 hours	**Major Requirements – 34 hours**
CS 2014 Computer Science I	CS 2014 Computer Science I
CS 2163 Computer Science II	CS 2163 Computer Science II
CS 3033 Object Oriented Programming	CS 3033 Object Oriented Programming
CS 3173 Basic Computer Architecture	CS 3173 Basic Computer Architecture
CS 3343 Computer Operating Systems	CS 3343 Computer Operating Systems

CS 3403 Data Structures	CS 3403 Data Structures
CS 4203 Software Engineering	CS 4203 Software Engineering
CS 4233 Professional Development in Computer Science	CS 4233 Professional Development in Computer Science
CS 4343 Database Management Systems	CS 4343 Database Management Systems
CS 4573 Advanced Programming	CS 4573 Advanced Programming
MATH 3023 Discrete Mathematics	MATH 3023 Discrete Mathematics
Major Electives – 11 hours from the following:	**Major Electives – 11 hours from the following:**
Group A – 6 hours	**Group A – 6 hours**
CS 1033 Introduction to Programming	CS 1033 Introduction to Programming
CS 2023 Technology in Modern Society	CS 2023 Technology in Modern Society
CS 3023 Object Based Visual Programming	CS 3023 Object Based Visual Programming
CS 3100 Selected Topics in Computer Science	CS 3100 Selected Topics in Computer Science
CS 3203 Application Development in C++	CS 3203 Application Development in C++
CS 3623 Network Security	CS 3623 Network Security
CS 3633 Internet Security	CS 3633 Internet Security
CS 3643 Programming for Cyber Security	CS 3643 Programming for Cyber Security
CS 3663 Principles of TCP/IP	CS 3663 Principles of TCP/IP
ENGL 3083 Professional & Technical Writing	ENGL 3083 Professional & Technical Writing
IS 3053 Website Design and Management	IS 3053 Website Design and Management
Group B – 5 hours	**Group B – 5 hours**
CS 3223 Programming Languages	CS 3223 Programming Languages
CS 4023 Introduction to Artificial Intelligence	CS 4023 Introduction to Artificial Intelligence
CS 4100 Advanced Selected Topics in Computer Science	CS 4100 Advanced Selected Topics in Computer Science
CS 4113 Computer Science Internship	CS 4113 Computer Science Internship
CS 4143 Web Applications	CS 4143 Web Applications
CS 4223 Game Programming	CS 4223 Game Programming
or	or
MATH 4223 Computer Graphics	MATH 4223 Computer Graphics
	Cs 4xx3 Machine Learning
CS 4233 Professional Development in Computer Science	CS 4233 Professional Development in Computer Science
(may be repeated once for an additional 3 hours credit with instructor approval)	(may be repeated once for an additional 3 hours credit with instructor approval)
CS 4253 Windows Programming	CS 4253 Windows Programming
CS 4363 Data Mining	CS 4363 Data Mining
CS 4463 Translation Applications	CS 4463 Translation Applications
CS 4553 Parallel Programming	CS 4553 Parallel Programming
MATH 4233 Numerical Analysis	MATH 4233 Numerical Analysis

Major Total – 45	Major Total – 33 hours
Open Electives - 11 hours	Total Business Core & Major – 63 hours
Degree Total – 120 Hours	Open Electives - 11 hours
	Degree Total – 120 Hours
Current Minor Curriculum	**Proposed Minor Curriculum**
Requirements – 13 hours	**Requirements – 13 hours**
CS 2014 Computer Science I	CS 2014 Computer Science I
CS 2163 Computer Science II	CS 2163 Computer Science II
CS 3033 Object Oriented Programming	CS 3033 Object Oriented Programming
or CS 3403 Data Structures	or CS 3403 Data Structures
MATH 3023 Discrete Mathematics	MATH 3023 Discrete Mathematics
Electives – 5 hours	**Electives – 5 hours**
CS 1033 Introduction to Programming	CS 1033 Introduction to Programming
CS 2023 Technology in Modern Society	CS 2023 Technology in Modern Society
CS 3023 Object Based Visual Programming	CS 3023 Object Based Visual Programming
CS 3033 Object Oriented Programming	CS 3033 Object Oriented Programming
CS 3100 Selected Topics in Computer Science	CS 3100 Selected Topics in Computer Science
CS 3173 Basic Computer Architecture	CS 3173 Basic Computer Architecture
CS 3203 Application Development in C++	CS 3203 Application Development in C++
CS 3223 Programming Languages	CS 3223 Programming Languages
CS 3343 Computer Operating Systems	CS 3343 Computer Operating Systems
CS 3403 Data Structures	CS 3403 Data Structures
CS 3623 Network Security	CS 3623 Network Security
CS 3633 Internet Security	CS 3633 Internet Security
CS 3643 Programming for Cyber Security	CS 3643 Programming for Cyber Security
CS 3663 Principles of TCP/IP	CS 3663 Principles of TCP/IP
CS 4023 Introduction to Artificial Intelligence	**CS 4xx3 Machine Learning**
CS 4100 Advanced Selected Topics	CS 4023 Introduction to Artificial Intelligence
in Computer Science	CS 4100 Advanced Selected Topics
CS 4143 Web Applications	in Computer Science
CS 4203 Software Engineering	CS 4143 Web Applications
CS 4223 Game Programming	CS 4203 Software Engineering
or MATH 4223 Computer Graphics	CS 4223 Game Programming
CS 4233 Professional Development	or MATH 4223 Computer Graphics
in Computer Science	CS 4233 Professional Development
CS 4253 Windows Programming	in Computer Science
CS 4363 Data Mining	CS 4253 Windows Programming
CS 4463 Translation Applications	CS 4363 Data Mining
CS 4553 Parallel Programming	CS 4463 Translation Applications
CS 4573 Advanced Programming	CS 4553 Parallel Programming
IS 3053 -Website Design and Management	CS 4573 Advanced Programming

MATH 4233 Numerical Analysis Total minor hours: 18	IS 3053 -Website Design and Management MATH 4233 Numerical Analysis Total minor hours: 18

Bachelor of Science in Integrative Biology (Organismic Option)

OSRHE Code: 115

The curriculum modification will do the following:

- Add GEOG 3813 Geographic Information Systems to the list of Organismic Biology option elective courses.
- Sunset the Organismic Biology option from the NSU Broken Arrow campus. The program will continue to be located and offered on the Tahlequah campus.

Current Curriculum	Proposed Curriculum
General Education – 46 hours	**General Education – 46 hours**
Integrative Biology Core - 35 hours BIOL 1021 Introductory Biology II Laboratory BIOL 1023 Introductory Biology II BIOL 3003 Plant Biology BIOL 3013 Animal Biology BIOL 3114 Genetics BIOL 3153 Evolutionary Biology BIOL 3344 Environmental Physiology BIOL 3524 Ecology BIOL 4621 Senior Seminar CHEM 1223 General Chemistry II (Lecture) CHEM 1231 General Chemistry II (Laboratory) MATH 3513 Statistical Methods 2 hours of biology research experience from one of the following: BIOL 3142 Experimental Design BIOL 4232 Molecular and Cellular Biology Laboratory BIOL 4410 Research in Biology BIOL 4422 Integrative Biology Research BIOL 4700 Internship **Organismic Option – 35 hours**	**Integrative Biology Core - 35 hours** BIOL 1021 Introductory Biology II Laboratory BIOL 1023 Introductory Biology II BIOL 3003 Plant Biology BIOL 3013 Animal Biology BIOL 3114 Genetics BIOL 3153 Evolutionary Biology BIOL 3344 Environmental Physiology BIOL 3524 Ecology BIOL 4621 Senior Seminar CHEM 1223 General Chemistry II (Lecture) CHEM 1231 General Chemistry II (Laboratory) MATH 3513 Statistical Methods 2 hours of biology research experience from one of the following: BIOL 3142 Experimental Design BIOL 4232 Molecular and Cellular Biology Laboratory BIOL 4410 Research in Biology BIOL 4422 Integrative Biology Research BIOL 4700 Internship **Organismic Option – 35 hours**

Required Courses – 23 hours	Required Courses – 23 hours
BIOL 3224 Microbiology BIOL 3244 Ichthyology or BIOL 4234 Mammalogy or BIOL 4264 Ornithology or BIOL 4584 Herpetology BIOL 3464 Field Botany BIOL 4214 Animal Parasitology BIOL 4500 Selected Topics in Biology (3 hours) CHEM 3123 Organic Chemistry I (Lecture) CHEM 3131 Organic Chemistry I (Laboratory) **Biology Electives - 12 hours** Complete 12 hours of Biology electives. Major Total – 70 hours Open Electives - 3 hours Degree Total – 120 Hours	BIOL 3224 Microbiology BIOL 3244 Ichthyology or BIOL 4234 Mammalogy or BIOL 4264 Ornithology or BIOL 4584 Herpetology BIOL 3464 Field Botany BIOL 4214 Animal Parasitology BIOL 4500 Selected Topics in Biology (3 hours) CHEM 3123 Organic Chemistry I (Lecture) CHEM 3131 Organic Chemistry I (Laboratory) **Biology Electives - 12 hours** Complete 12 hours of Biology electives **which can include GEOG 3813 Geographic Information Systems.** Major Total – 70 hours Open Electives - 3 hours Degree Total – 120 Hours

Master of Science in Reading

OSRHE Code: 075

The curriculum modification will do the following:

- Add READ 5463 the Science of Reading: Foundations of Literacy (new course name) as an enrichment course selection.
- Remove SLP 3813 Language Development from the enrichment course selection.

Current Curriculum	Proposed Curriculum
Professional Education - 6 hours EDUC 5103 Educational Research EDUC 5483 Advanced Educational Measurements **Reading Core - 21 hours** READ 5113 Emergent & Early Literacy Development READ 5223 Intermediate/Middle School/High School Reading Instruction READ 5323 Literacy Assessment READ 5480 Applied Assessment READ 5510 Seminar: Literacy Trends & Issues READ 5540 Practicum in Literacy READ 5573 Issues in Facilitating Literacy Development **Enrichment - 3 hours** ECED 5413 Advanced Development of the Young Child ECED 5583 Current Trends and Research in Early Childhood ECED 5713 Advanced Study, Cognitive Development of Young Children ECED 5813 Utilization of Resources in Early Childhood ECED 5900 Seminar in Early Childhood Education LIBM 5023 Advanced Materials for Children LIBM 5313 Advanced Materials for Young Adults READ 5213 Remediation for Dyslexia & Struggling Readers SLP 3813 Language Development **Capstone - 3 hours** READ 5563 Contemporary Literacy Research Degree Total – 33 hours	**Professional Education - 6 hours** EDUC 5103 Educational Research EDUC 5483 Advanced Educational Measurements **Reading Core - 21 hours** READ 5113 Emergent & Early Literacy Development READ 5223 Intermediate/Middle School/High School Reading Instruction READ 5323 Literacy Assessment READ 5480 Applied Assessment READ 5510 Seminar: Literacy Trends & Issues READ 5540 Practicum in Literacy READ 5573 Issues in Facilitating Literacy Development **Enrichment - 3 hours** ECED 5413 Advanced Development of the Young Child ECED 5583 Current Trends and Research in Early Childhood ECED 5713 Advanced Study, Cognitive Development of Young Children ECED 5813 Utilization of Resources in Early Childhood ECED 5900 Seminar in Early Childhood Education LIBM 5023 Advanced Materials for Children LIBM 5313 Advanced Materials for Young Adults READ 5213 Remediation for Dyslexia & Struggling Readers ~~SLP 3813 Language Development~~ **READ 5463 Science of Reading: Foundations of Literacy** **Capstone - 3 hours** READ 5563 Contemporary Literacy Research Degree Total – 33 hours

CERTIFICATE MODIFICATIONS

Healthcare Administration Certificate

OSRHE Code: 181

The curriculum modification will do the following:

- Remove HCA 4323 Health Information Analytics from course list and add BADM Business Analytics in its place.

Current Curriculum	Proposed Curriculum
Required Courses - 15 hours HCA 3213 Public Health & Global Initiatives in Health Care HCA 3313 Healthcare Reimbursement Strategies HCA 4013 Leadership, Policy and Ethics HCA 4223 Quality Management and Patient Safety HCA 4323 Health Information Analytics Certificate Total – 15 hours	**Required Courses - 15 hours** HCA 3213 Public Health & Global Initiatives in Health Care HCA 3313 Healthcare Reimbursement Strategies HCA 4013 Leadership, Policy and Ethics HCA 4223 Quality Management and Patient Safety ~~HCA 4323 Health Information Analytics~~ **BADM 4203 Business Analytics** Certificate Total – 15 hours

Healthcare Information Analytics Certificate

OSRHE Code: 182

The curriculum modification will do the following:

- Remove HCA 4323 Health Information Analytics from course list and add BADM Business Analytics in its place.

Current Curriculum	Proposed Curriculum
Required Courses - 15 hours BADM 3933 Business Statistics HCA 3213 Public Health & Global Initiatives in Health Care HCA 4323 Health Information Analytics IS 4293 Business Database Management Systems MGMT 4143 Project Management Certificate Total – 15 hours	**Required Courses - 15 hours** BADM 3933 Business Statistics HCA 3213 Public Health & Global Initiatives in Health Care ~~HCA 4323 Health Information Analytics~~ IS 4293 Business Database Management Systems MGMT 4143 Project Management **BADM 4203 Business Analytics** Certificate Total – 15 hours

International Business Certificate

OSRHE Code: 065

The curriculum modification will do the following:

- Add BLAW 3003 Business Law as a course selection in addition to IBUS 4333 Legal Environment of International Business.

Current Curriculum	Proposed Curriculum
Required Courses - 15 hours IBUS 4333 Legal Environment of International Business IBUS 4343 International Marketing IBUS 4843 International Business IBUS 4930 Certification Preparation (1-3 hrs) SCM 4533 International Supply Chain Management Certificate Total – 15 hours	**Required Courses - 15 hours** IBUS 4333 Legal Environment of International Business **or** **BLAW 3003 Business Law I** IBUS 4343 International Marketing IBUS 4843 International Business IBUS 4930 Certification Preparation (1-3 hrs) SCM 4533 International Supply Chain Management Certificate Total – 15 hours

Operations and Supply Chain Management Certificate

OSRHE Code: 180

The curriculum modification will do the following:

- Remove SCM 4353 Logistics and Transportation Management
- Remove SCM 4633 Supply Chain Strategy
- Remove SCM 473 Materials Management Handling
- Add MGMT 4103 Business Decision Analysis
- Add MGMT 4323 Quality Management
- Add SCM 4533 International Supply Chain Management

Current Curriculum	Proposed Curriculum
Required Courses - 15 hours MGMT 3213 Principles of Operations Management SCM 3553 Supply Management SCM 4353 Logistics and Transportation Management SCM 4633 Supply Chain Strategy SCM 4723 Materials Management Handling	**Required Courses - 15 hours** MGMT 3213 Principles of Operations Management SCM 3553 Supply Management ~~SCM 4353 Logistics and Transportation Management~~ ~~SCM 4633 Supply Chain Strategy~~ ~~SCM 4723 Materials Management Handling~~ **MGMT 4103 Business Decision Analysis**

Certificate Total – 15 hours	**MGMT 4323 Quality Management** **SCM 4533 International Supply Chain Management** Certificate Total – 15 hours

Quality Management Certificate

OSRHE Code: 192

The curriculum modification will do the following:

- Remove SCM 3733 Lean Concepts in Organizations
- Add SCM 4533 International Supply Chain Management

Current Curriculum	Proposed Curriculum
Required Courses - 12 hours Certificate Total – 12 hours MGMT 3213 Principles of Operations Management MGMT 4323 Quality Management MGMT 4930 Certification Preparation SCM 3733 Lean Concepts in Organizations Certificate Total – 12 hours	**Required Courses - 12 hours** MGMT 3213 Principles of Operations Management MGMT 4323 Quality Management **SCM 4533 International Supply Chain Management** MGMT 4930 Certification Preparation ~~SCM 3733 Lean Concepts in Organizations~~ Certificate Total – 12 hours

MINOR MODIFICATIONS

Entrepreneurship Minor

NSU CODE: 1120

The curriculum modification will do the following:

- Remove MGMT 3553 Entrepreneurial Financial Management
- Remove MGMT 4243 New Venture Creation
- Remove MGMT 4283 Social Entrepreneurship
- Remove MGMT 4643 Entrepreneurship Capstone
- Add MKT Principles of Marketing
- Add MKT 3263 Introduction to Digital Media

Current Curriculum	Proposed Curriculum
Required Courses - 18 hours	**Required Courses - 18 hours**

MGMT 3553 Entrepreneurial Financial Management MGMT 4243 New Venture Creation MGMT 4283 Social Entrepreneurship or MGMT 3323 Creativity, Innovation, & Opportunity MGMT 4543 Small Business Management MGMT 4643 Entrepreneurship Capstone MKT 3213 Principles of Marketing or MKT 3263 Introduction to Digital Media Marketing Minor Total – 18 hours	~~MGMT 3553 Entrepreneurial Financial Management~~ ~~MGMT 4243 New Venture Creation~~ ~~MGMT 4283 Social Entrepreneurship~~ MGMT 3323 Creativity, Innovation, & Opportunity MGMT 4543 Small Business Management ~~MGMT 4643 Entrepreneurship Capstone~~ MKT 3213 Principles of Marketing MKT 3263 Introduction to Digital Media Marketing **MKT 3523 Service Industry Management** **MGMT 4573 Digital Business** Minor Total – 18 hours

Hospitality and Tourism Minor

NSU Code: 1950

The curriculum modification will do the following:

- Fix the minor curriculum to 12 required hours, and 6 elective hours.

Current Curriculum	Proposed Curriculum
Required Courses - 18 hours 18 hours of Hospitality and Tourism Management (HTM) courses. Minor Total – 18 hours	**Required Courses - 18 hours** **HTM 3113 Gaming and Hotel Operations** **HTM 3323 Meeting and Event Management** **HTM 3623 Principles of Tourism Management** **MKT 3523 Service Industry Management** **6 hours of 3000-4000 HTM / MGMT / MKT / TECH / BADM / HCA courses** Minor Total – 18 hours

PROGRAM SUSPENSIONS

Bachelor of Business Administration in Entrepreneurship

OSRHE Code: 136

The curriculum suspension proposal will do the following:

- Teach out current majors within 3-years.
- Add the Entrepreneurship option to the Business Administration, BBA (see above).
- Monitor student and employer demand in the option and modify or delete the program as determined at the end of the program teach out.

Bachelor of Business Administration in Hospitality and Tourism

OSRHE Code: 093

The curriculum suspension proposal will do the following:

- Teach out current majors within 3-years.
- Add the Hospitality and Tourism option to the Marketing, BBA (see above).
- Monitor student and employer demand in the option and modify or delete the program as determined at the end of the program teach out.

Bachelor of Business Administration in Supply Chain Management

OSRHE Code: 145

The curriculum suspension proposal will do the following:

- Teach out current majors within 3-years.
- Add the Entrepreneurship option to the Management, BBA (see above).
- Monitor student and employer demand in the option and modify or delete the program as determined at the end of the program teach out.