

Proposal for a BS degree in Integrated Science and Entrepreneurship (ISE)

Saunders College of Business and
College of Science

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- **The Need**
 - Technology companies need business people who understand science (and vice versa)
- **The Response**
 - Six universities offer BS degrees that address this need
 - Only one is a technology university
 - Nearly 100% placement, \$84k average starting salary

External Competing Programs

- LaSalle University 30 students
- U. Washington 20
- U Wisconsin Whitewater 45
- S.E Louisiana University 35
- James Madison University 45
- Virginia Tech 120

- ISE projected enrollment 44 students

Student placement – Titles and Salaries

<ul style="list-style-type: none"> • Corporate Management 		<ul style="list-style-type: none"> • Corporate Analysis 	
• Leadership Development Program, Johnson & Johnson -	\$102k	Analyst, Johnson & Johnson	\$81k
• Leadership Development Program, GlaxoSmithKline -	\$102k	Associate Analyst, Johnson & Johnson	\$67k
• Merchant Program in Pharmacy, Wal-Mart Stores, Inc. -	\$59k	Associate Systems Analyst, Pactiv Corporation	\$61k
• Operations Manager, Delta Geophysics Inc. -	\$94k	Energy/Marine Underwriter, Navigators Group	\$65k
• Program Director, GlaxoSmithKline	\$90k	Export Logistics Coordinator, BDP International, Inc.	\$75k
• Sr. Marketing Associate, Digitas Health -	\$70k	Financial Services Professional, New York Life	\$80k
• Store Leadership Program, Home Depot USA, Inc.	\$114k	Logistics Specialist, Life Cycle Engineering	\$75k
• Supervisor – Field Automation Specialists, DHL	\$74k	Program Analyst, U.S. General Services Administration	\$81k
• Project Management		Sr. Procurement Analyst, Sunoco Inc.	\$81k
• Analyst, Johnson & Johnson Consumer Group of Companies	\$78k	Sr. Regulatory Associate, Octagon Research Solutions	\$69k
• Assistant Contractor, Lawrence Contracting	\$87k	Systems Analyst, Siemens Medical Systems	\$81k
• Project Manager, ALZA Corporation of Johnson & Johnson	\$120k	Research and Development	
• Project Manager, Fieldwork International	\$120k	Cell Culture Associate, GlaxoSmithKline	\$42k
• Project Analyst, UnitedHealth Group	\$81k	Manufacturing Associate II, Tengion	\$54k
• Real Estate Project Manager, Watchdog	\$87k	Quality Assurance Associate, Gemin X	\$36k
• Research Services Analyst, Consumer Health Sciences	\$81k	Research Support Specialist, Stony Brook University	\$62k
• System Analyst II, Robert – Kohler Company	\$86k	Scientist, GlaxoSmithKline	\$62k
		Scientist, National Medical Services Labs	\$82k
		Upstream Associate, AppTec Laboratory Services	\$79k
		Production	
		Brewer, Philadelphia Brewing Company	\$68k

NOTE: Many of these employers already hire from RIT

- **Mission/Vision**

- A degree program that integrates a discipline of science with entrepreneurial business skills
 - demonstrates RIT's commitment to interdisciplinary programs and innovation
 - maintains academic rigor within each COS major and by the Saunders College of Business
- Experiential learning is an ISE cornerstone
 - co-ops and a capstone project that synthesize the student's skills and experiences are central to these degrees

Content & Curricular Design

- Foundational curriculum (Table 1a)
 - Common to all ISE tracks
 - Contains all required SCB ISE courses
 - Satisfies RIT requirements for degree (Gen Ed etc.)
- Each science/math track within ISE remains under the control of its COS program
- Credit balance: TOTAL 121 credit hours
 - Liberal Arts and Sciences 61
 - Saunders College of Business 24
 - Science major 24
 - Free or open 6
 - Capstone (in Science) 6

Table 1a's

- The curriculum committees of SCB and each school within COS constructed the Table 1a's for this program for each of the majors
 - Assures a rigorous technical core in each area
 - Provides participation and ownership by each school

Program Features

- **Experiential learning**
 - 2 summer co-ops
 - 1 with a science/research focus
 - 1 with a business focus
 - **Senior capstone**
 - Advisers from ISE and mentors from their discipline
 - 2 new one-semester courses
 - Students synthesize the science and business skills experienced in their personal journey
 - Approved by COS Curriculum Committee 12/16

Course Flow – Environmental Science ISE

Year 1 Fall

Financial Accounting 110

Applied Calculus (161)

Microeconomics 101

Gen Bio 101 and Lab 103

Year 1 Spring

Corporate Finance 220

Gen Bio 102 and Lab 104

Intro to Statistics 145

Year 2 Fall

Principles of Marketing 230

Concepts Env. Science 101

Organizational Behavior 215

Env. Workshop 201

Year 2 Spring

Intro to Statistics 145

Environmental Sci. Elective

Corporate Finance 220

Year 2 Summer

Business Co-op

Course Flow – Environmental Science ISE

Year 1 Fall

Financial Accounting 110

Applied Calculus (161)

Microeconomics 101

Gen Bio 101 and Lab 103

Year 1 Spring

Corporate Finance 220

Gen Bio 102 and Lab 104

Intro to Statistics 145

Year 2 Fall

Principles of Marketing 230

Concepts Env. Science 101

Organizational Behavior 215

Env. Workshop 201

Year 2 Spring

Intro to Statistics 145

Environmental Sci. Elective

Corporate Finance 220

Year 2 Summer

Business Co-op



Course Flow – Environmental Science ISE

Year 3 Fall

Entrepreneurship 350

Environmental Sci. Elective

Environmental Sci. Elective

Year 3 Spring

Appl. Entrepreneurship 470

Environmental Sci. Elective

Year 3 Summer

Science Co-op

Year 4 Fall

Operations Management 310

ISE Capstone 451

Environmental Sci. Elective

Year 4 Spring

Business Elective

ISE Capstone 452

Environmental Sci. Elective

Course Flow – Physics ISE

Year 1 Fall

Financial Accounting 110

Project based Calculus 181

Microeconomics 101

Intro to Statistics 145

Year 1 Spring

Corporate Finance 220

Project based Calculus 182

University Physics 211

Year 2 Fall

Principles of Marketing 230

Multivariable Calculus 219

Organizational Behavior 215

University Physics 212

Year 2 Spring

Corporate Finance 220

Differential Equations 231

Modern Physics 213

Vibrations and Waves 283

Year 2 Summer

Business Co-op

Course Flow – Physics ISE

Year 1 Fall

Financial Accounting 110

Project based Calculus 181

Microeconomics 101

Intro to Statistics 145

Year 1 Spring

Corporate Finance 220

Project based Calculus 182

University Physics 211

Year 2 Fall

Principles of Marketing 230

Multivariable Calculus 219

Organizational Behavior 215

University Physics 212

Year 2 Spring

Corporate Finance 220

Differential Equations 231

Modern Physics 213

Vibrations and Waves 283

Year 2 Summer

Business Co-op



Course Flow – Physics ISE

Year 3 Fall

Entrepreneurship 350

Math Methods in Physics 320

Physics elective

Year 3 Spring

Appl. Entrepreneurship 470

Physics Elective

Year 3 Summer

Science Co-op

Year 4 Fall

Operations Management 310

ISE Capstone 451

Physics Elective

Year 4 Spring

Business Elective

ISE Capstone 452

Indicate academic calendar type: Semester Quarter Trimester Other (describe)

Term: FALL 1		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
SCB-ACCT-110 Financial Accounting	3		3		Instructor permission	
P5 - LAS	4	4			(Science/math foundation courses are field specific)	
P7A - COS-MATH-181 Project-Based Calculus I	4	4			MPE score >75	
FYW CLA-UWRT-150: Writing Seminar	3	3			SAT verbal score >560	
Year One ACSC-010	0					
Term credit total:	14	11	3			
Term: FALL 2		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
LAS elective	3	3				
SCB-MKTG-230 Principles of Marketing	3		3		2 nd year standing	
SCB-MGMT-215 Org. Behavior	3		3		2 nd year standing	
SCB-FINC-220 Corporate Finance	3		3		SCB-ACCT-110, CLA-ECON-101, STAT-145	
P3- LAS	3	3				
Term credit total:	15	6	9			
Term: Summer 2		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
Summer Co-op	0			X		
Term credit total:	0					
Term: FALL 3		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
Science/math track 3	3		3			
Science/Math track 4	3		3			
I1 - LAS	3	3				
Science/math track 5	3		3			
SCB-MGMT-470 Entrepreneurship	3		3		3 rd year standing	
Term credit total:	15	3	9, 3			
Term: FALL 4		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
WI COS-ISE-451-ISE Capstone 1	3		3	X		
SCB-DECS-310 Operations Management	3		3		COS-STAT-145	
I3 - LAS	3	3				
Open Elective*	3					
Science/Math track 7	3		3			
Term credit total:	15	3	6, 3			

Term: SPRING 1		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
P6 - LAS	4	4			Course-specific	
P7B COS-MATH-182 Project-Based Calculus II	4	4			COS-MATH-181	
LAS elective - COS-STAT-145 Intro to Stats	3	3				
LAS Elective - CLA-ECON-101 Principles of Microeconomics	3	3				
P1 - LAS	3	3				
Wellness 1	0					
Term credit total:	17	17				
Term: SPRING 2		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
Science/math track 1	3		3			
Science/math track 2	3		3			
SCB-MGMT-350 Appl. Entrepreneurship/Commercialization	3		3			
P4 - LAS	3	3				
LAS-Elective	3	3				
Wellness 2	0					
Term credit total:	15	6	6, 3			
Term: SPRING 3		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
P2 LAS	3	3				
Open Elective *	3					
I2 - LAS	3	3				
Science/Math track 6	3		3			
LAS Elective	3	3				
Term credit total:	15	9	3			
Term: Summer 3		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
Summer Co-op	0			X		
Term credit total:	0					
Term: SPRING 4		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
COS-ISE-452-ISE Capstone 2	3		3	X	ISE Capstone 1	
Business elective	3		3			
LAS-Elective	3	3				
LAS-Elective	3	3				
Science/Math track 8	3		3			
Term credit total:	15	6	6, 3			

* NOTE: The Open Electives cannot be business courses – they must be outside the Saunders School of Business

Program MINIMUM Totals:	Credits: 121	Liberal Arts & Sciences: 61	Major: 24+24=48 Business 24, Science 24	Open Electives: 6 Capstone: 6
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RIT ISE Graduates will be:

Innovative and Creative

- One of the few integrated science and business BS degrees
- ISE students will gain skills that usually are only obtained through growth in the work environment, such as:
 - Intellectual Property, negotiation, program management, budget management, and entrepreneurship

Integrated and Experiential education

Well-prepared for the targeted careers

- ISE students will create and implement solutions to real-world problems through industrial co-op and capstone experiences.

Synergistic, Collaborative, and Interdisciplinary

- COS and SCB have created a program that is **inherently collaborative and interdisciplinary**
 - ISE maintains a strong foundation of carefully chosen discipline-specific courses in both science and business.

RIT Strategic Plan

1. Career Education and Student Success

- Prepares students for evolving science and entrepreneurship career areas
- Experiential education in real team-oriented skills built on a solid scientific core

2. The Student-Centered Research University

- Hands-on experience in both business and research is part of each graduate's education

3. Leveraging Difference

- ISE will enhance RIT's reputation as an interdisciplinary program innovator by fusing rigorous science content and experiences with entrepreneurship

4. Affordability, Value, and Return on Investment

- Average starting salary = \$84k
- Other programs report nearly 100% placement

5. Organizational Agility

- ISE primarily uses existing courses in COS and SCB
 - New courses for the capstones have been added
- New degree combinations and additional colleges can be added

ISE degree

Degree	Total Credit Required Hours
ISE	121
Typical RIT Science Major	120-124
Double major (approximate)	130 - 140

Projected Enrollments

	YEAR				
	2018	2019	2020	2021	2022
First Year	9	11	11	11	11
Second Year	0	10	11	11	11
Third Year	0	1	9	11	11
Fourth Year	0	0	0	9	10
Total Students in Program	9	22	31	42	43
Total Headcount	9	22	31	42	44

We expect that these students will be *new* to RIT

- A small number of existing students in each COS discipline may qualify for transfer

COS						
BS Science and Entrepreneurship						
Detailed College Spending Plan						
PROGRAM DEVELOPMENT PHASE: FULL PROGRAM DEVELOPMENT						
COS						
YEAR 5 PLAN STATUS: FAVORABLE						
	Year					Total
	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	
	1	2	3	4	5	
Faculty Salary Expense Allowance	\$ 31,613	\$ 65,446	\$ 96,144	\$ 122,513	\$ 129,708	\$ 445,424
Faculty Inputs	Base Salary Assumption (Exclude Benefits)					
Tenure/TT (Enter FTE)						
Lecturer (Enter FTE)						
Adjunct (Enter Sections)						
Other: Faculty Release Time, Program Director	\$ 21,000	\$ 21,525	\$ 22,063	\$ 22,615	\$ 23,181	
College Planned Faculty Salary Expense						
Tenure TT Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lecturer Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Adjunct Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Cost	\$ 21,000	\$ 21,525	\$ 22,063	\$ 22,615	\$ 23,181	\$ 110,384
College Planned Faculty Salary Expense	\$ 21,000	\$ 21,525	\$ 22,063	\$ 22,615	\$ 23,181	\$ 110,384
Variance to Allowance	\$ 10,613	\$ 43,921	\$ 74,081	\$ 99,898	\$ 106,527	\$ 335,040
Other Direct College Costs	\$ 3,359	\$ 6,954	\$ 10,216	\$ 13,017	\$ 13,782	\$ 47,327
Staffing: Please List	Base Salary Assumption (Exclude Benefits)					
Administrative Support	\$ 36,000	0.5	0.5	0.5	0.5	
College Planned Staffing Salary Expense						
Administrative Support Cost	\$ -	\$ 19,869	\$ 20,365	\$ 20,874	\$ 21,396	\$ 82,505
Total Staffing	\$ -	\$ 19,869	\$ 20,365	\$ 20,874	\$ 21,396	\$ 82,505
Other Direct Costs (Please List)						
Supplies	\$ 1,670	\$ 3,591	\$ 5,490	\$ 7,243	\$ 7,723	\$ 25,717
Student Wages	\$ 3,000	\$ 3,075	\$ 3,152	\$ 3,231	\$ 3,311	\$ 15,769
Total Non-Salary	\$ 4,670	\$ 6,666	\$ 8,642	\$ 10,474	\$ 11,034	\$ 41,486
College Planned Staffing and Other Direct Costs	\$ 4,670	\$ 26,535	\$ 29,007	\$ 31,348	\$ 32,430	\$ 123,991
Variance to Allowance	\$ (1,311)	\$ (19,581)	\$ (18,792)	\$ (18,331)	\$ (18,649)	\$ (76,664)
College Planned Expense vs. Threshold						
Total Home College Planned Expenses	\$ 25,670	\$ 48,060	\$ 51,070	\$ 53,963	\$ 55,611	
Total Secondary College Planned Expenses	\$ -	\$ -	\$ -	\$ -	\$ 83,208	
New Program Expense Allowance Threshold*	\$ 56,473	\$ 117,238	\$ 172,564	\$ 220,253	\$ 233,627	
Variance	\$ 30,803	\$ 69,178	\$ 121,494	\$ 166,290	\$ 94,808	
Variance Status to Model	favorable	favorable	favorable	favorable	favorable	

RIT Financial Model

FINANCIALS	2018-19	2019-20	2021-22	2022-23	2023-24	Five Year Total
Revenue (Net of Aid)	\$358,129	\$722,000	\$995,263	\$1,220,972	\$1,283,080	\$4,579,444
Faculty Expense	\$85,948	\$168,555	\$228,515	\$276,826	\$287,843	\$1,047,686
Total Expense	\$269,621	\$524,136	\$713,717	\$862,596	\$896,507	\$3,266,576
Contribution Margin Surplus/(Deficit)	\$88,508	\$197,864	\$281,547	\$358,376	\$386,573	\$1,312,868

Resources

- SCB and COS are both at/near capacity
 - To account for new students, 1 additional SCB faculty will be required (over three years)
- Academic advising
- Mentor in selected major for occasional consulting on the Capstone project

Space Requirements - Lab

Needed: Dedicated space (*600 sq ft*) for 20-25 students working on capstone projects.

- Capstone projects might share required wet lab space with the COS Science Exploration program

Motion :

I move that the proposed BS degree in Integrated Science and Entrepreneurship from the College of Science be approved.

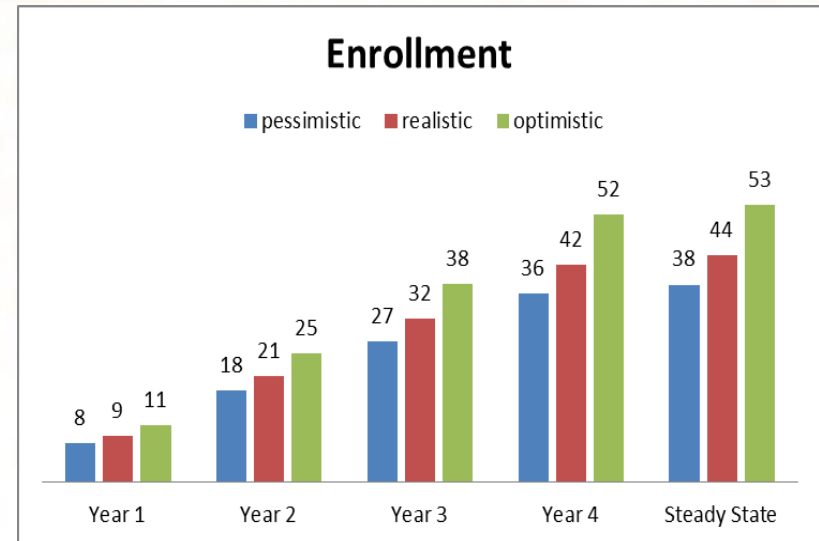


Enrollment Management

The projected enrollment represents an approximate average of two extremes.

- **Conservative estimate: 38 students total**
 - First incoming class will have 7 students,
 - Subsequent first year classes 9 students
 - 0.5 transfers into the freshman and sophomore classes each year
 - 85% year-to-year retention rate
- **Optimistic estimate: 53 students total**
 - First freshman class will have 11 students,
 - Subsequent freshman classes 12 students
 - 1 transfer into the freshman and sophomore classes each year
 - 98% year to year retention rate

The final projection is midway between conservative and optimistic.



Student Placement

- The ISE degree program will produce graduates that will meet a growing need in the industry
 - Examples from competing programs include Scientist, Operations Manager, Program Director, Supervisor, Analyst, Research Services Analyst ...
 - 60% of companies that hire graduates of competing programs already hire from RIT, such as Johnson & Johnson, GlaxoSmithKline, Wal-Mart, Digitas Health, UnitedHealth Group and more
- ISE will demonstrate RIT's commitment to interdisciplinary programs and innovation
- ISE aligns with the COS Mission
 - prepare graduates for careers in a rapidly changing global marketplace
 - develop and support active and cross-disciplinary programs

Career Preparation

Students graduating from similar programs at other universities have secured careers¹ in:

CORPORATE MANAGEMENT	CORPORATE ANALYSIS
Johnson & Johnson	Johnson & Johnson
GlaxoSmithKline	Pactiv Corporation
Wal-Mart Stores, Inc.	Underwriter, Navigators Group
Delta Geophysics, Inc.	BDP International, Inc.
Digitas Health	New York Life
Home Depot U.S.A., Inc.	Life Cycle Engineering
DHL	U.S. General Services Administration
PROJECT MANAGEMENT	Sunoco, Inc.
Johnson & Johnson	Octagon Research Solutions
Lawrence Contracting	Siemens Medical Systems
ALZA Corporation	RESEARCH AND DEVELOPMENT
Fieldwork International	GlaxoSmithKline
UnitedHealth Group	Tengion
Watchdog	Gemin X
Consumer Health Services	Stony Brook University
Robert Kohler Company	National Medical Services

Table 1a: Undergraduate Program Schedule – BS Integrated Science and Entrepreneurship - FOUNDATION

Indicate academic calendar type: x Semester Quarter Trimester Other (describe)

Term: FALL 1						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	Term: SPRING 1					
						Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)
SCB-ACCT-110 Financial Accounting	3		3		Instructor permission	P6 - LAS	4	4			Course-specific
P5 - LAS	4	4			(Science/math foundation courses are field specific)	P7B COS-MATH-182 Project-Based Calculus II	4	4			COS-MATH-181
P7A - COS-MATH-181 Project-Based Calculus I	4	4			MPE score >75	LAS elective - COS-STAT-145 Intro to Stats	3	3			
FYW CLA-UWRT-150: Writing Seminar	3	3			SAT verbal score >560	LAS Elective - CLA-ECON-101 Principles of Microeconomics	3	3			
						P1 - LAS	3	3			
Year One ACSC-010	0					Wellness 1	0				
Term credit total:	14	11	3			Term credit total:	17	17			
Term: FALL 2						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	Term: SPRING 2					
						Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)
LAS elective	3	3				Science/math track 1	3		3		
SCB-MKTG-230 Principles of Marketing	3		3		2 nd year standing	Science/math track 2	3		3		
SCB-MGMT-215 Org. Behavior	3		3		2 nd year standing	SCB-MGMT-350 Appl. Entrepreneurship/Commercialization	3		3		
SCB-FINC-220 Corporate Finance	3		3		SCB-ACCT-110, CLA-ECON-101, STAT-145	P4 - LAS	3	3			
P3- LAS	3	3				LAS-Elective	3	3			
						Wellness 2	0				
Term credit total:	15	6	9			Term credit total:	15	6	6,3		
Term: Summer 2						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	Term: SPRING 3					
						Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)
Summer Co-op	0			X		P2 LAS	3	3			
Term credit total:	0					Open Elective *	3				
Term: FALL 3						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	Term: SPRING 4					
						Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)
Science/math track 3	3		3			COS-ISE-452-ISE Capstone 2	3		3	x	ISE Capstone 1
Science/Math track 4	3		3			Business elective	3		3		
I1 - LAS	3	3				LAS-Elective	3	3			
Science/math track 5	3		3			LAS-Elective	3	3			
SCB-MGMT-470 Entrepreneurship	3		3		3 rd year standing	Science/Math track 8	3		3		
Term credit total:	15	3	9, 3			Term credit total:	15	6	6,3		
Term: Summer 3						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	Term: SPRING 4					
						Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)
Summer Co-op	0			X							
Term credit total:	0										
Term: FALL 4						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	Term: SPRING 4					
						Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)
WI COS-ISE-451-ISE Capstone 1	3		3	X	Summer co-op						
SCB-DECS-310 Operations Management	3		3		COS-STAT-145						
I3 - LAS	3	3									
Open Elective*	3										
Science/Math track 7	3		3								
Term credit total:	15	3	6, 3								

* NOTE: The Open Electives cannot be business courses – they must be outside the Saunders School of Business

Program MINIMUM Totals:	Credits: 121	Liberal Arts & Sciences: 61	Major: 24+24=48 Business 24, Science 24	Open Electives: 6 Capstone: 6
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Table 1a: Undergraduate Program Schedule – BS Integrated Science and Entrepreneurship – ENVIRONMENTAL SCIENCE

Indicate academic calendar type: x Semester Quarter Trimester Other (describe)

Term: FALL 1						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
SCB-ACCT-110 Financial Accounting	3		3		Instructor permission						
COS-BIOL-101 General Biology I (P5)	3	3									
COS-BIOL-103 General Biology Lab I (P5)	1	1									
COS-MATH-161 Applied Calculus (P7A)	4	4									
CLA-ECON-101 Principles of Microeconomics	3	3									
Year 1 ACSC-010	0										
Term credit total:	14	11	3								
Term: FALL 2						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
ENVS-101 Concepts of Env Sci	3	3									
SCB-MKTG-230 Principles of Marketing	3		3		2 nd year standing						
SCB-MGMT-215 Org. Behavior	3		3		2 nd year standing						
ENVS-111 Soil Science	4	4									
LAS-P2	3	3									
Term credit total:	16	10	6								
Term: Summer 2						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
Summer Co-op	0			X							
Term credit total:	0										
Term: FALL 3						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
Env. Sci Elective	3		3								
Env. Sci Elective	3		3								
LAS-I1	3	3									
SCB-MGMT-350 Entrepreneurship	3		3		3 rd year standing						
LAS-P4	3	3									
Term credit total:	15	6	6, 3								
Term: Summer 3						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
Summer Co-op	0			X							
Term credit total:	0										
Term: FALL 4						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
COS-ISE-451-ISE Capstone 1 (WI)	3		3	X	Summer co-op						
SCB-DECS-310 Operations Management	3		3		COS-STAT-145						
LAS-I3	3	3									
Open Elective*	3										
Env. Sci Elective	3		3								
Term credit total:	15	3	6, 3								
Term: SPRING 1						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
COS-BIOL-102 General Biology II (P6)	3	3									
COS-BIOL-104 Gen Bio Lab II	1	1									
CLA-UWRT-150 FYW: Writing Seminar	3	3								SAT verbal score >560	
COS-STAT-145 Intro to Stats (P7B)	3	3									
SCB-FINC-220 Corporate Finance	3		3							SCB-ACCT-110, CLA-ECON-101, STAT-145	
Wellness 1	0										
LAS-P1	3	3									
Term credit total:	16	13	3								
Term: SPRING 2						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
ENVS-201 Environmental Workshop	3		3		ENVS-101 or STSQ-220						
Env Sci Elective	3		3								
SCB-MGMT-150 The World of Business	3		3								
LAS-P3	3	3									
LAS-Elective	3	3									
Term credit total:	15	6	6, 3								
Term: SPRING 3						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
LAS-Elective	3	3									
Open Elective*	3										
LAS-I2	3	3									
Env Sci Elective	3		3								
SCB-MGMT-470 Appl. Entrepreneurship/Commercialization	3		3								
Term credit total:	15	6	3, 3								
Term: SPRING 4						Check course classification (s)					
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	CR	LAS	Maj	New	Prerequisite(s)	
COS-ISE-452-ISE Capstone 2	3		3	x	ISE Capstone 1						
Business elective	3		3								
LAS-Elective	3	3									
LAS-Elective	3	3									
Env. Sci Elective	3		3								
Term credit total:	15	6	6, 3								

* NOTE: The Open Electives cannot be business courses – they must be outside the Saunders School of Business

Program MINIMUM Totals:	Credits: 121	Liberal Arts & Sciences: 61	Major: 24+24=48 Business 24, Science 24	Other: 6 Capstone: 6
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