**PROGRAM CHANGES**

 WEBER STATE UNIVERSITY

**Submission Date:**

**College: Goddard School of Business & Economics**

**Department**: **Business Administration**

**Program Title: B.S. in Information Systems & Technologies**

**PROGRAM DESCRIPTION:**

(From the current catalog) “A bachelor’s degree in Information Systems & Technologies provides students with a broad background in basic business knowledge, problem solving, and computer systems analysis and design skills. Graduates from this major are prepared to help organizations use computer technology to support their business processes. Technologies that all IST majors study include software development, computer architecture, database design, web development and management, and networks. Then, depending on the electives the student chooses, the student will also study advanced software development, and systems analysis and design, or advanced networks, information security and computer forensics.

Information Systems & Technologies graduates may work for a large organization, specializing in one aspect of information technology. Or, they may work for a small firm as one of a few people who helps support all areas of the firm’s technologies. The job will involve working with people to understand how they do their jobs and where computers can be most effective, as well as implementing computer-based solutions; training people to use the systems; installing and troubleshooting hardware, software and networks; and helping management understand and plan for the best new technologies to integrate in the organization’s business processes.”

Check all that apply:

\_\_\_\_New course(s) required for major, minor, emphasis, or concentration.

\_\_x\_Modified course(s) required for major, minor, emphasis, or concentration.

\_\_x\_Credit hour change(s) required for major, minor, emphasis, or concentration.

\_\_x\_Credit hour change(s) for a course which is required for the major, minor, emphasis, or concentration.

\_\_\_\_Attribute change(s) for any course.

\_\_\_\_Program name change.

\_\_x\_Deletion of required course(s).

\_\_x\_Other changes (specify) \_\_\_\_\_\_\_Program Description that Appears in the Current Catalog\_\_\_\_\_

If multiple changes are being proposed, please provide a summary. Use strikeout (~~strikeout~~) when deleting items in the program and highlight (highlight) when adding items.

**Submit the original to the Faculty Senate Office, MC 1033,** and an **electronic copy to** kbrown4 @weber.edu

**JUSTIFICATION:**

Housed in the Goddard School of Business & Economics, Information Systems and Technologies (IST) offers very unique 2-year and 4-year programs preparing students with knowledge and skills both in information technologies and in business.  IST graduates are expected to be able to analyze business problems and apply appropriate information technology to solve them.  During the past decade, not only has the information technology industry changed tremendously (such as the emergence of wireless computing technologies and related network technologies and information security mechanisms), the business industry in general has also been greatly impacted by those changes (such as the application of those new technologies and the development of new web applications).  To continue preparing our students adequately for the industry, it is critical that the IST curriculum changes accordingly. Certain formerly required courses would be more appropriately offered as electives, certain formerly elective courses would be more appropriately offered as required courses, certain outdated courses would no longer need to be offered, and certain courses need to change in number of credit hours in order to strengthen or reduce coverage of certain industry content.  As course structures change, prerequisite relationships also need to be adjusted.

 **INFORMATION PAGE**

Attach a copy of the present program from the current catalog and a revised version (exactly as you wish it to appear in the catalog).

**(Please See Attachment)**

Did this program change receive unanimous approval within the Department? **YES** If not, what are the major concerns raised by the opponents?

Explain any effects this program change will have on program requirements or enrollments in other departments including the Bachelor of Integrated Studies Program. In the case of similar offerings or affected programs,you should include letters from the departments in question stating their support or opposition to the proposed program.

**None**

Indicate the number of credit hoursfor course work within the program. (Do not include credit hours for General Education, SI, Diversity, or other courses unless those courses fulfill requirements within the proposed program.) **\_77\_**

Indicate the number of credit hours for course work within the current program. (Do not include credit hours for General Education, SI, Diversity, or other courses unless those courses fulfill requirements within the current program.) **\_86\_**

**(Note: Cat Tracks currently lists the undergraduate program requirement as a total of 123 credit hours. The proposed program will require 120 credit hours, satisfying university requirements.)**

ATTACHMENT: CATALOG CHANGES

**Current Catalog Description:**

 “A bachelor’s degree in Information Systems & Technologies provides students with a broad background in basic business knowledge, problem solving, and ~~computer systems analysis and design skills~~. Graduates from this major are prepared to help organizations use computer technology to support their business processes. Technologies that all IST majors study include software development, computer architecture, database design, ~~web development and management,~~ and networks. ~~Then, depending on the electives the student chooses, the student will also study advanced software development, and systems analysis and design, or advanced networks, information security and computer forensics.~~

Information Systems & Technologies graduates may work for a large organization, specializing in one aspect of information technology~~. Or,~~ they may work for a small firm as one of a few people who helps support all areas of the firm’s technologies. The job will involve working with people to understand how they do their jobs and where computers can be most effective, ~~as well as~~ implementing computer-based solutions; training people to use the systems; installing and troubleshooting hardware, software ~~and~~ networks; and helping management understand and plan for the best new technologies to integrate in the organization’s business processes.”

**Proposed Catalog Description:**

A bachelor’s degree in Information Systems & Technologies provides students with a **balanced education between business and information technologies.**  It provides students with a broad background in basic business knowledge, problem solving, and **computer technology and skills**. Graduates from this major are prepared to help organizations use computer technology to support their business processes **and solve their business problems**. Technologies that all IST majors study include software development, computer architecture, database design, **computer** networks, **and systems analysis and design**. **In addition, students may also elect to study advanced networks, web development and management, and information security and computer forensics.**

Information Systems & Technologies graduates may work for a large organization, specializing in one aspect of information technology**, or,** they may work for a small firm as one of a few people who helps support all areas of the firm’s **computer** technologies. The job will involve working with people to understand how they do their jobs and where computers can be most effective, implementing computer-based solutions, training people to use computer systems, installing and troubleshooting hardware, software, **or** networks, and helping management understand and plan for the best new technologies to integrate in the organization’s business processes.

**Current Program:**

**Business Foundations (13 credits)**

**BSAD 2899 (0 credits)**

**Business Cross-Functional Core (19 credits)**

**Business Functional Core (15 credits)**

**Major Courses Required (27 credit hours)**

[~~IST 2015 - Introduction to Information Systems & Technologies~~](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**~~Credits:~~****~~(1)~~**

[IST 2110 - Software Development I](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[IST 2410 - Information Systems Architecture](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[~~IST 2720 - Data Structures and Algorithms~~](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**~~Credits:~~****~~(3)~~**

[IST 3210 - Database Design and Implementation](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **~~(4)~~**

[IST 3610 - Networks & Data Communications I](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **~~(4)~~**

[~~IST 3700 - E-business Technologies & Web Development~~](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**~~Credits:~~****~~(3)~~**

[IST 4730 - Senior Practicum: Project Management and Systems Development](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[NTM 3250 - Business Communication](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

**Concentration Elective Courses (12 credit hours)**

*Select 4 courses from the following ~~with at least one 4xxx level course~~*

[IST 3620 - Networks and Data Communications II](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[~~IST 3720 - Software Development II~~](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**~~Credits:~~****~~(3)~~**

[~~IST 3730 - Systems Analysis and Design~~](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**~~Credits:~~****~~(3)~~**

[IST 4600 - Information Security I](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[IST 4700 - Information Security II](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[~~IST 4710 - Enterprise Software Development~~](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**~~Credits:~~****~~(3)~~**

**Proposed Program:**

**Business Foundations (13 credits)**

**BSAD 2899 (0 credits)**

**Business Cross-Functional Core (19 credits)**

**Business Functional Core (15 credits)**

**Major Courses Required (21 credit hours)**

[IST 2110 - Software Development I](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[IST 2410 - Information Systems Architecture](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[**IST 3210 - Database Design and Implementation**](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**Credits: (3) (Credit changed from 4 to 3)**

[**IST 3610 - Networks & Data Communications I**](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**Credits: (3) (Credit changed from 4 to 3)**

[**IST 3730 - Systems Analysis and Design**](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**Credits: (3) (Moved from electives)**

[IST 4730 - Senior Practicum: Project Management and Systems Development](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[NTM 3250 - Business Communication](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

**Concentration Elective Courses (9 credit hours)**

*Select 3 courses from the following*

[IST 3620 - Networks and Data Communications II](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[**IST 3700 - E-business Technologies & Web Development**](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)**Credits: (3) (Moved from required)**

[IST 4600 - Information Security I](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

[IST 4700 - Information Security II](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134) **Credits:** **(3)**

**IST 4720 – Emerging Information Technologies Credits: (3) (Already in catalog)**

**IST 4891 – IST Internship Credits: (3) (Already in catalog)**

1. Change 86 credit hours to 77 credit hours
2. Delete “IST2015 Introduction to Information Systems & Technologies Credit: (1)”
3. Delete “IST2720 Date Structures and Algorithms (3)”
4. Delete “IST3720 Software Development II (3)”
5. Delete “[IST 4710 - Enterprise Software Development](http://catalog.weber.edu/preview_program.php?catoid=6&poid=2134)  (3)”
6. Change “IST3210 Database Design and Implementation” from 4 credit hours to 3 credit hours
7. Change “IST3610 Networks & Data Communications” from 4 credit hours to 3 credit hours
8. Change “IST 3730 System Analysis and Design (3)” from Elective to Required
9. Change “IST 3700 E-business Technologies & Web Development(3)” from Required to Elective
10. Add “IST 4720 Emerging Information Technologies (3)” (already in catalog) as elective
11. Add “IST Internship (3)” (already in catalog) as elective

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| **Information Systems & Technologies Suggested 4-yr. Planning Guide (Current)** |
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|  |  |  |  |
| **Freshman** | **Freshman** |
| Gen Ed: BTNY LS 1403 Environment Appreciation | 3 | Gen Ed: LIBS/BSAD 2704 Info Res. Bus. Disciplines\*\* | 1 |
| Gen Ed: ENGL EN 1010 Introductory College Writing  | 3 | Gen Ed: ENGL EN 2010 Intermediate College Writing  | 3 |
| Gen Ed: American Institutions (AI) | 3 | **Gen Ed: ECON SS 2010 Principles of Microeconomics (BF)** | 3 |
| ~~IST 2015 Introduction to IS&T~~ | ~~1~~ | Gen Ed: Humanities (HU)/(DV)\*\*\* | 3 |
| **Gen Ed: IST 2010 Business Computer Skills (CIL)\* (BF)** | 1 | Gen Ed: Social Science (SS)/(DV)\*\*\* | 3 |
| Gen Ed: MATH QL 1050 College Algebra | 4 | IST 2410 Information Systems Architecture | 3 |
| Total Credits | ~~15~~ | Total Credits | 16 |
| **Sophomore** | **Sophomore** |
| **ECON SS 2020 Principles of Macroeconomics (BF)** | 3 | **ACTG 2010 Survey of Accounting I (BF)** | 3 |
| Gen Ed: Creative Arts (CA)/(DV)\*\*\* | 3 | Gen Ed: Physical Science (PS) or Life Science (LS)/(DV)\*\*\* | 3 |
| Gen Ed: Physical Science (PS) | 3 | ~~IST 2720 Data Structures & Architecture~~ | ~~3~~ |
| IST 2110 Software Development I | 3 | IST 3210 Database Design & Implementation | ~~4~~ |
| Gen Ed: Humanities (HU) or Creative Arts (CA)/(DV)\*\*\* | 3 | **QUAN 2600 Business Statistics I (BF)** | 3 |
|   |   | **BSAD 2899 Business Foundations & Admission Assessment** | 0 |
| Total Credits | 15 | Total Credits | ~~16~~ |
| **Junior** | **Junior** |
| ACTG 2020 Survey of Accounting II | 3 | BSAD 3200 Legal Environment of Business | 3 |
| IST 3610 Networks & Data Communications I | ~~4~~ | IST Elective Course #1 | 3 |
| NTM 3250 Business Communication | 3 | MGMT 3010 Organizational Behavior & Management | 3 |
| MKTG 3010 Marketing Concepts & Practices | 3 | SCM 3050 Operations & Logistics Management | 3 |
| QUAN 3610 Business Statistics II | 3 | QUAN 2400 Business Calculus  | 3 |
| Total Credits | 16 | Total Credits | 15 |
| **Senior** | **Senior** |
| BSAD 3330 Business Ethics & Environmental Responsibility | 3 | BSAD 4780 Strategic Management | 3 |
| FIN 3200 Financial Management | 3 | BSAD 4620 Executive Lectures | 1 |
| ~~IST 3700 E-Business Tech & Web Development~~ | ~~3~~ | International Course - IST 3710 Global Issues | 3 |
| IST Elective Course #2 | 3 | ~~IST Elective Course #4~~ | ~~3~~ |
| IST Elective Course #3 | 3 | IST 4730 Senior Practicum: Project Mgmt & Systems Dev | 3 |
| Total Credits | 15 | Total Credits | ~~13~~ |
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| **Information Systems & Technologies Suggested 4-yr. Planning Guide (Proposed)** |
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|  |  |  |  |
| **Freshman** | **Freshman** |
| Gen Ed: BTNY LS 1403 Environment Appreciation | 3 | Gen Ed: LIBS/BSAD 2704 Info Res. Bus. Disciplines\*\* | 1 |
| Gen Ed: ENGL EN 1010 Introductory College Writing  | 3 | Gen Ed: ENGL EN 2010 Intermediate College Writing  | 3 |
| Gen Ed: American Institutions (AI) | 3 | **Gen Ed: ECON SS 2010 Principles of Microeconomics (BF)** | 3 |
| **Gen Ed: IST 2010 Business Computer Skills (CIL)\* (BF)** | 1 | Gen Ed: Humanities (HU)/(DV)\*\*\* | 3 |
| Gen Ed: MATH QL 1050 College Algebra | 4 | Gen Ed: Social Science (SS)/(DV)\*\*\* | 3 |
|  |  | IST 2410 Information Systems Architecture | 3 |
| Total Credits | 14 | Total Credits | 16 |
| **Sophomore** | **Sophomore** |
| **ECON SS 2020 Principles of Macroeconomics (BF)** | 3 | **ACTG 2010 Survey of Accounting I (BF)** | 3 |
| Gen Ed: Creative Arts (CA)/(DV)\*\*\* | 3 | Gen Ed: Physical Science (PS) or Life Science (LS)/(DV)\*\*\* | 3 |
| Gen Ed: Physical Science (PS) | 3 |  IST 3610 Networks & Data Communications I |  3 |
| IST 2110 Software Development I | 3 | IST 3210 Database Design & Implementation | 3 |
| Gen Ed: Humanities (HU) or Creative Arts (CA)/(DV)\*\*\* | 3 | **QUAN 2600 Business Statistics I (BF)** | 3 |
|   |   | **BSAD 2899 Business Foundations & Admission Assessment** | 0 |
| Total Credits | 15 | Total Credits | 15 |
| **Junior** | **Junior** |
| ACTG 2020 Survey of Accounting II | 3 | BSAD 3200 Legal Environment of Business | 3 |
| IST 3730 Systems Analysis and Design | 3 | IST Elective Course #1 | 3 |
| NTM 3250 Business Communication | 3 | MGMT 3010 Organizational Behavior & Management | 3 |
| MKTG 3010 Marketing Concepts & Practices | 3 | SCM 3050 Operations & Logistics Management | 3 |
| QUAN 3610 Business Statistics II | 3 | QUAN 2400 Business Calculus  | 3 |
| Total Credits | 15 | Total Credits | 15 |
| **Senior** | **Senior** |
| BSAD 3330 Business Ethics & Environmental Responsibility | 3 | BSAD 4780 Strategic Management | 3 |
| FIN 3200 Financial Management | 3 | BSAD 4620 Executive Lectures | 1 |
|  International Course - IST 3710 Global Issues | 3 | IST Elective Course #3 | 3 |
| IST Elective Course #2 | 3 | IST 4730 Senior Practicum: Project Mgmt & Systems Dev | 3 |
|  Elective  |  3 | Elective  | 5 |
| Total Credits | 15 | Total Credits | 15 |
|  |  |  |  |