Memorandum

To:      Daryl Whitford, Registrar
From:    Max L. Checketts, Vice President for Academics
Date:    May 14, 2010
Subject: Curriculum Proposals

The following proposals were approved by the Academic Council:

- 09-39  IS Math, Geoffrey Draper
- 10-03  Accounting New Prerequisites – 1st Term 2010, Kevin Kimball

MLC:ill
Cc:      Jeff Burroughs, Dean, College of Math & Sciences
         Glade Tew, Dean, College of Business, Computing & Government
         Chad Compton, Associate Academic Vice President for Instruction
         Elaine Merrill, Department Chair, Math
         Kevin Kimball, Department Chair, Accounting
         Doug Bates, Chair, Curriculum Committee
## Approvals

Name of Proposal: IS_Math

Submitted by: Geoffrey M. Draper  
Signature: [Signature]

Date: 8 October 2009

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Recommendation/Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reviewed by Faculty and Approved by Department</td>
<td>Signature: [Signature]</td>
<td></td>
</tr>
<tr>
<td>Chair: James Lee</td>
<td></td>
<td>10/9/09</td>
</tr>
<tr>
<td>2. Approved by College</td>
<td>Signature: [Signature]</td>
<td></td>
</tr>
<tr>
<td>Dean: Glade Tew</td>
<td></td>
<td>10/12/09</td>
</tr>
<tr>
<td>3. Reviewed by LAS (when new resources are requested)</td>
<td>Signature: LAS: Douglas Bates</td>
<td></td>
</tr>
<tr>
<td>4. Approved by General Education and Honors (if needed)</td>
<td>Signature: GEH: Beth Haynes</td>
<td></td>
</tr>
<tr>
<td>5. Approved by University Curriculum Committee</td>
<td>Signature: UCC: Douglas Bates</td>
<td></td>
</tr>
<tr>
<td>6. Approved by Academic Council</td>
<td>Signature: AVP: Max Checketts</td>
<td></td>
</tr>
<tr>
<td>7. For new programs--Approved by the President’s Council</td>
<td>Signature: Name: Steven Wheelwright</td>
<td></td>
</tr>
</tbody>
</table>
Section 2 – Overview (Support)

Summary:

We propose to add the option of taking Math 119 as part of the Information Systems major. Currently, IS students are required to take either Math 112 (5 credits) or CIS 206 (3 credits). This proposal will allow Math 119 (4 credits) as an additional option.

This option will not affect the total credit hours required for the major. However, for those students who want to take calculus, this gives them a new 4-credit alternative instead of the 5-credit Math 112. Students still have the option of taking Discrete Math II (CIS 206) for 3 credits.

On 6 October 2009, the CIS faculty voted unanimously in favor of this proposal.

Elaine Merrill of the Math department has reviewed both the old and new MRS forms (see Section 3) and has no objection to our making Math 119 available to our IS students.
Section 3 - Program Proposal

Upon approval, the information presented on this course proposal sheet will become binding on the department and the university. Any material changes require a new program proposal.

Effective Date: immediately upon approval

College: Business, Computing, and Government

Abbreviation: IS

Major Requirements Sheet (MRS): The main document required for a program proposal is the MRS which is used by academic advisors, students, and others. It must be attached immediately following this page. It must clearly identify ALL requirements that must be met. Take special care to make sure the MRS is as clear and accurate as possible.

Core elements of the Major Requirements Sheet are binding as approved and cannot be changed without a new program proposal. The following elements are core.

The list of Requirements

For each requirement, the number of credits required (if applicable) and the specific courses by number (or number range) that can be applied to meet that requirement. (Note that waivers and substitutions can be used to supersede requirements on a per student basis.)

Take special care that “and” and “or” are clarified when complex alternatives are presented. If appropriate, simplify to meet the normal case and allow waivers and substitutions to be used to meet unusual cases.

Support elements of the Major Requirements Sheet are not binding and can be freely changed without a new program proposal. The following elements are support.

The formatting of the MRS.

The order in which the requirements are listed.

For each requirement, its descriptive label.

For each course, the dates the course is expected to be offered.

For each course, its prerequisites.

Note that some support element changes require a Course Proposal, even though the MRS does not need to be re-approved.

Immediately following this page, attach the revised Major Requirements Sheet.

Following the MRS, attach PDF copies of the online catalog web pages that should change as a result of this proposal. Indicate the location of changes that should be made.
# Required courses for admission to the major (15 hours)

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Cr</th>
<th>Prerequisites</th>
<th>Offered</th>
<th>Semester or Term</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100</td>
<td>Fundamentals of Info. Systems &amp; Tech.</td>
<td>3</td>
<td>None</td>
<td>F W Sp</td>
<td>1st</td>
<td></td>
</tr>
<tr>
<td>CIS 101</td>
<td>Beginning Programming</td>
<td>3</td>
<td>None</td>
<td>F W Sp</td>
<td>1st</td>
<td></td>
</tr>
<tr>
<td>IT 224/L</td>
<td>Computer Hardware &amp; Sys Software/Lab</td>
<td>3</td>
<td>None</td>
<td>F W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT 240</td>
<td>Fund. of Web Design &amp; Technology</td>
<td>3</td>
<td>None</td>
<td>F W Sp</td>
<td>1st</td>
<td></td>
</tr>
<tr>
<td>IT 280/L</td>
<td>Data Comm. Systems and Networks/Lab</td>
<td>3</td>
<td>CIS 101</td>
<td>F W Sp</td>
<td>1st</td>
<td></td>
</tr>
</tbody>
</table>

To be accepted into this major, you must pass CIS 100 with a B- or better, and all other courses above with a C or better. You must also have a cumulative GPA of 2.0 or higher.

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# Core Requirements (29 hours) classes marked "MO" are for admitted majors only

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<th>Course #</th>
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<th>Cr</th>
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<tr>
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<td>Discrete Mathematics I</td>
<td>3</td>
<td>CIS 101, Math 110</td>
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<td></td>
<td></td>
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<tr>
<td>Math 221</td>
<td>Principles of Statistics I</td>
<td>3</td>
<td>Math 106 or 110</td>
<td>F W Sp</td>
<td>Su</td>
<td></td>
<td></td>
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<tr>
<td>CIS 305</td>
<td>Systems Engineering I</td>
<td>3</td>
<td>CIS 205, Co/Preeq. IS 350</td>
<td>F W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 330</td>
<td>Management Information Systems</td>
<td>3</td>
<td>B- or better in CIS 100 or Business Core</td>
<td>F W Sp</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 350</td>
<td>Database Management Systems</td>
<td>3</td>
<td>CIS 101</td>
<td>F W</td>
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<td></td>
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<tr>
<td>IS 400</td>
<td>Information Systems Proficiency</td>
<td>0</td>
<td></td>
<td>F W Sp</td>
<td>Su 1st</td>
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<tr>
<td>CIS 401</td>
<td>Web Application Programming</td>
<td>3</td>
<td>CIS 101, IT240 (or Inst. Permission), IS350</td>
<td>F W</td>
<td></td>
<td></td>
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<tr>
<td>CIS 405</td>
<td>Systems Engineering II</td>
<td>3</td>
<td>CIS 305</td>
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<td>CIS 470</td>
<td>Ethics in Computer &amp; Info. Sciences</td>
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# Advanced Content Area Electives (9-11 hours)

**Group 1:** Any additional 400-level courses in CS, IS or IT by permission. (6 hours)

**Group 2:** Choose one. (3-5 hours) **Note:** Many Master's Programs require incoming students to have completed calculus.

- **Math 112** Calculus I
- **CIS 206** Discrete Math II

**Fundamental Skills “Minor” in an Environment where IS can be applied (15 credits)**

IS professionals must understand their chosen employment environment and prepare to function effectively in it. Each student must complete at least 15 credits in a cohesive body of course work for such an environment.

- **Acct 201** Introduction to Financial Accounting
- **Acct 203** Introduction to Managerial Accounting
- **Econ 200** Principles of Microeconomics
- **Econ 201** Principles of Macroeconomics
- **Busm 242** Ethics and the Legal Env. of Business

**ACCT 203 and ECON 201 may be substituted with any higher level Business classes.**

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1) One grade of D+, D, or D- may be applied towards the major. Other grades must be C- or better.................................................................

2) One retake is allowed per class, for up to three classes. Additional retakes require special permission.................................................................

3) A department-approved assessment test must be taken during your last full semester at BYUH, and is recommended annually.................................

**Revised 3/11/04**
**B.S. in Information Systems**  
**October 2009**  
**IS / INFOSYSBS**

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<td>Fund. of Web Design &amp; Technology</td>
<td>3</td>
<td>None</td>
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<td>CIS 305</td>
<td>Systems Engineering I</td>
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<td>CIS 205, CoPrereq: IS 350</td>
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<tr>
<td>IS 330</td>
<td>Management Information Systems</td>
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<tr>
<td>IS 485</td>
<td>Project Management &amp; Practice</td>
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<td>CIS401, CIS 405, IS 400</td>
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### Advanced Content Area Electives (9-11 hours)

**Group 1:** Any additional 400-level courses in CS, IS or IT or by permission. (6 hours)

**Group 2:** Choose one. (3-5 hours) *Note: Many Master's Programs require incoming students to have completed calculus.*

- **Math 112**  
  Calculus I  
  Cr 5  
  Math 111 or equiv  
  F W

- **Math 119**  
  Applied Calculus  
  Cr 4  
  Math 111 or equiv  
  F W

- **CIS 206**  
  Discrete Math II  
  Cr 3  
  CIS 205  
  F Sp 1st

### Fundamental Skills “Minor” in an Environment where IS can be applied (15 credits)

IS professionals must understand their chosen employment environment and prepare to function effectively in it. Each student must complete at least 15 credits in a cohesive body of course work for such an environment.

- **Acct 201**  
  Introduction to Financial Accounting  
  Cr 3  
  Math 97 or equiv  
  F W Sp Su

- **Acct 203**  
  Introduction to Managerial Accounting  
  Cr 3  
  Acct 201, Math 110 or 106 or equiv  
  F W Sp Su

- **Econ 200**  
  Principles of Microeconomics  
  Cr 3  
  Math 97 or equiv  
  F W Sp Su

- **Econ 201**  
  Principles of Macroeconomics  
  Cr 3  
  Math 97 or equiv  
  F W Sp Su

- **Busm 242**  
  Ethics and the Legal Env. of Business  
  Cr 3  
  Permission  
  F W Sp

**ACCT 203 and ECON 201 may be substituted with any higher level Business classes.**

---

1) One grade of D+, D, or D- may be applied towards the major. Other grades must be C- or better.
2) One retake is allowed per class, for up to three classes. Additional retakes require special permission.
3) A department-approved assessment test must be taken during your last full semester at BYUH, and is recommended annually.
CHEM 105/L General Chemistry I (4)
CHEM 106/L General Chemistry II (4)

B.S. INFORMATION SYSTEMS (68 HOURS)

http://apps.byuh.edu/catalogCurrent/Academic_Departments-&_Programs/Directory/

CORE REQUIREMENTS (44 HOURS)
- CIS 100 Fundamentals of Information Systems & Technology (3)
- CIS 101 Beginning Programming (3)
- CIS 201 Web Programming (3)
- CIS 205/L Discrete Mathematics I (3)
- CIS 305 Systems Engineering I (3)
- CIS 405 Systems Engineering II (3)
- CIS 470 Ethics in Computer & Information Sciences (2)
- IS 330 Management Information Systems (3)
- IS 350 Database Management Systems (3)
- IS 400 IS Proficiency (0)
- IS 430/L Foundations in IT Services, Enterprise Systems, and ERP Skills (3)
- IS 485 Project Management and Practice (3)
- IT 224/L Computer Hardware and Systems Software (3)
- IT 240 Fundamentals of Web Design & Technology (3)
- IT 280/L Data Communications Systems and Networks (3)
- Math 221 Principles of Statistics I (3)

ADVANCED CONTENT AREA ELECTIVES (9-11 HOURS)

Advanced IS Group (6 hours)
Any additional 400 level courses in CS, IS or IT, or by permission.

Quantitative Group (3-5 hours)

Note: Many Master's Programs require incoming students to have completed calculus.
- Math 112 Calculus I (5) or CIS 206/L Discrete Math II (3)

FUNDAMENTAL SKILLS IN AN EMPLOYMENT ENVIRONMENT (15 HOURS)

IS professionals must understand their chosen employment environment and prepare to function effectively in it. Each student must complete at least 15 credits in a cohesive body of course work for such an environment. They may complete the courses listed or may submit an alternative environment to the IS Program Chair for approval.
- ACCT 201 Introduction to Financial Accounting (3)
- ACCT 203 Introduction to Managerial Accounting (3)
- ECON 200 Principles of Microeconomics (3)