



# B.S. in Computer Science

COMPSCBS.2014 (mrs)  
60 credits, incl 6 GE credits

Effective Date: 04/2014

<b>Name of Student:</b>		
<b>Student ID #:</b>		Graduation Date
<b>Home Country:</b>	<input type="checkbox"/> IWORK	
<b>Advisor:</b>	Name	Date

## Required courses for admission to the major

12 Credits

Student must pass the following courses with a grade of C or better.

Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
CIS 101	Beginning Programming	3		F,W,S		
CIS 202	Object-Oriented Programming I	3	CIS 101	F,W,S		
CIS 205	Discrete Mathematics I (GenEd)	3	CIS 101	W,S		
IT 280/L	Data Communications/Lab	3		F,W,S		

To be accepted into this major, you must pass all courses listed above with a C or better. You must also have a cumulative GPA of 2.0 or higher. I understand that **One retake is allowed per class, for up to three classes. Additional retakes require special permission.** I understand that if I exhaust my repeats, I risk the chance of not being able to continue in the major or any other major in the CIS department. Please acknowledge that you understand this policy by signing below.

Academic Advisor \_\_\_\_\_ Date \_\_\_\_\_ Student \_\_\_\_\_ Date \_\_\_\_\_ Accepted into the major: CS Program Chair \_\_\_\_\_ Date \_\_\_\_\_

## Core Requirements

41 Credits

Classes marked "MO" are for admitted majors only.

CIS 206	Discrete Mathematics II	3	CIS 202, CIS 205		F,S	
CIS 305	Systems Engineering I	3	CIS 202; Co/Prereq: IS 350	MO	F,W	
CIS 401	Web Application Programming	3	CIS 101, IT 240, or CS 301, and IS 350		F,W,S	
CIS 405	Systems Engineering II	3	CIS 305	MO	F,W	
CIS 470	Ethics in Computer & Info Sciences	2	CIS 405	MO	F,W,S	
CS 203	Object-Oriented Programming II	3	CIS 202		F,S	
CS 210	Computer Organization	3	CIS 101		W	
CS 301	Algorithms & Complexity	3	CS 203, CIS 206	MO	W	
CS 320	Computational Theory	3	CS 203, CIS 206	MO	W	
CS 400	Computer Science Proficiency	0	Last semester in residence	MO	F,W,S	
CS 415	Operating Systems Design	3	CS 210, CS 301	MO	W	
CS 420	Programming Languages	3	CS 301, CS 320	MO	F	
CS 490R	Advanced Topics in Computer Science	3	CS 301	MO	F,W	
CS 490R	Advanced Topics in Computer Science	3	CS 301	MO	F,W	
IS 350	Database Management Systems	3	CIS 101	MO	F,W	

## Math and Science Requirements

7 Credits

Students majoring in CS are expected to take Calculus (Math 119 or Math 112/113) in fulfillment of their "Quantitative Reasoning" General Education requirement

MATH 221	Principles of Statistics I (GenEd)	3	MATH 106 or 110 or equivalent		F,W,S	
PHYS 121/L	General Physics I/ Lab (GenEd- 3)	4	MATH 112 or MATH 119		W,S	

## Supplemental Courses

0 Credits

For students considering graduate school, we recommend taking MATH 343 and one additional lab-based course from the list below

MATH 343	Elementary Linear Algebra	3	MATH 112 or MATH 119		F	
PHYS 122/L	General Physics II/ Lab	4	PHYS 121		W,S	
PHYS 221/L	General Physics III/Lab	4	PHYS 121		F	
CHEM 105/L	General Chemistry I/ Lab (GenEd - 3)	4	MATH 110 or equivalent		F,W	
BIOL 212/L	Marine Biology/Lab	4	BIOL 100 or BIOL 112		S	

## Total Credits Mapped for Graduation:

- One D+, D, D- is allowed above. All other credits must be C- or better.
- One retake is allowed per class, for up to three classes. Additional retakes require special permission.



# B.S. in Information Systems

ISBS.2009 (mrs 826)

64-67 credits, incl. 6-8 GE credits

Effective Date: 12/2009

<b>Name of Student:</b>		
<b>Student ID #:</b>		Graduation Date
<b>Home Country:</b>	<input type="checkbox"/> IWORK	
<b>Advisor:</b>	Name	Date

## Required courses for admission to the major

18 Credits

Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
CIS 100	Fundamentals of Info. Systems & Tech.	3		F,W,S		
CIS 101	Beginning Programming	3		F,W,S		
CIS 202	Object-Oriented Programming I	3	CIS 101	F,W,S		
IT 224/L	Computer Hardware & Systems	3		F,W,S		
IT 240	Fundamentals of Web Design & Technology	3		F,W,S		
IT 280	Data Comm. Systems and Networks	3		F,W,S		

To be accepted in to this major, you must pass CIS 100 with a B- or better and all other courses listed above with a C or better. You must also have a cumulative GPA of 2.0 or higher. I understand that **One retake is allowed per class, for up to three classes. Additional retakes require special permission.** I understand that if I exhaust my repeats, I risk the chance of not being able to continue in the major or any other major in the CIS department. Please acknowledge that you understand this policy by signing below.

Academic Advisor \_\_\_\_\_ Date \_\_\_\_\_ Student \_\_\_\_\_ Date \_\_\_\_\_ Accepted into the major: CS Program Chair \_\_\_\_\_ Date \_\_\_\_\_

## Core Requirements

26 Credits

Classes marked "MO" are for admitted majors only.

CIS 205	Discrete Mathematics I (GenEd)	3	CIS 101		F,W,S	
CIS 305	Systems Engineering I	3	CIS 205, Co/Prereq: IS 350	MO	F,W	
CIS 401	Web Application Programming	3	CIS 101, IT 240, or CS 301, and IS 350	MO	F,W,S	
CIS 405	Systems Engineering II	3	CIS 305	MO	W,S	
CIS 470	Ethics in Computer & Information Sciences	2	CIS 405 or Senior Standing	MO	F,S	
IS 350	Database Management Systems	3	CIS 101	MO	W,S	
IS 400	Information Systems Proficiency	0			F,W,S	
IS 430	ITS- Enterprise Resource Planning	3	Jr. or Sr. standing in CIS, BUSM or ACCT	MO	F,W	
IS 485	Project Management & Practice	3	CIS 401, CIS 405, IS 400	MO	F,S	
MATH 221	Principles of Statistics I (GenEd) (MATH 321 or PSYCH 205 may substitute for MATH 221)	3			F,W,S	

## Advanced Content Area Electives

9-11 Credits

**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 (GenEd)	5	MATH 111 or equivalent		F,W,S	
MATH 119	Applied Calculus (GenEd)	4	MATH 110 experience		F,W	
CIS 206	Discrete Math II	3	CIS 205, CIS 202		W	

## 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	3			F,W,S	
ACCT 203	Introduction to Managerial Accounting	3	MATH 106/110 or higher (not MATH 221) or pass BMQT** or ACT math 22+ or SAT math 500+ AND ACCT 201 w/C- or better AND ACCT 231		F,W,S	
ECON 200	Principles of Microeconomics (GenEd)	3	MATH 110 or Pass BMQT**		F,W,S	
ECON 201	Principles of Macroeconomics	3	ECON 200		F,W,S	
BUSM 242	Ethics and the Legal Environment of Business	3	BUSM 180, ENGL 201		F,W,S	

## Total Credits Mapped for Graduation:

1. One D+, D, D- is allowed above. All other credits 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. \_\_\_\_\_



# B.S. in Information Technology

ITBS.2012 (mrs 732)

68 credits, incl. 3 GE credits

Effective Date: 8/2012

<b>Name of Student:</b>		
<b>Student ID #:</b>		Graduation Date
<b>Home Country:</b>	<input type="checkbox"/> IWORK	
<b>Advisor:</b>	Name	Date

## Required courses for admission to the major 15 Credits

Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
CIS 100	Fundamentals of Info. Systems & Tech.	3		F,W,S		
CIS 101	Beginning Programming	3		F,W,S		
IT 224/L	Computer Hardware & Sys Software/Lab	3		F,W		
IT 240	Fundamentals of Web Design & Technology	3		F,W,S		
IT 280	Data Communication & Networks	3		F,W,S		

To be accepted in to this major, you must pass CIS 100 with a B- or better and all other courses listed above with a C or better. You must also have a cumulative GPA of 2.0 or higher. I understand that **One retake is allowed per class, for up to three classes. Additional retakes require special permission.** I understand that if I exhaust my repeats, I risk the chance of not being able to continue in the major or any other major in the CIS department. Please acknowledge that you understand this policy by signing below.

Academic Advisor \_\_\_\_\_ Date \_\_\_\_\_ Student \_\_\_\_\_ Date \_\_\_\_\_ Accepted into the major: CS Program Chair \_\_\_\_\_ Date \_\_\_\_\_

## Core Requirements 38 Credits

*Classes marked "MO" are for admitted majors only.*

CIS 202	Object-Oriented Programming	3	CIS 101	MO	F,W,S		
CIS 305	Systems Engineering I	3	CIS 202, Co/Prerequisite: IS 350	MO	F,W		
CIS 401	Web Application Programming	3	CIS 101, IT 240, or CS 301, and IS 350	MO	F,W,S		
CIS 405	Systems Engineering II	3	CIS 305	MO	W,S		
CIS 470	Ethics in Computer & Information Sciences	2	CIS 405 or Sr. Standing	MO	F,S		
IS 350	Database Management Systems	3	CIS 101	MO	W,S		
IT 320	Linux Essentials	3	CIS 101		F,W		
IT 420	Linux System Administration	3	IT 320	MO	S		
IT 426	Computer Network Services	3	IT 224/L, IT 280/L	MO	F		
IT 427	Windows Desktop Configuration	3	IT 224/L, IT 280/L	MO	W		
IT 440	Foundations of HCI	3	CIS 305, IS 400, IT 240, MATH 221	MO	W		
IT 480	Computer Network Design	3	IT 280/L	MO	W		
IT 481	Information Assurance & Security	3	IT 280/L	MO	S		

## Math Requirement 6 Credits

CIS 205	Discrete Mathematics I (GenEd)	3	CIS 101		F,W,S		
MATH 221	Principles of Statistics I (GenEd) <small>(MATH 321 or PSYC 205 may substitute for MATH 221)</small>	3			F,W,S		

## Elective Requirements 9 Credits

*9 hours in additional CIS, CS, IS, or IT coursework at the 300 level or above*


## Total Credits Mapped for Graduation:

1. One D+, D, D- is allowed above. All other credits 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. \_\_\_\_\_