

Montana Tech of the University of Montana
Bachelor of Science in COMPUTER SCIENCE
 with
 Control Systems Emphasis
 Mathematical Science Emphasis
 Business Applications Emphasis

2000-2001 CATALOG

Fall Semester

Spring Semester

FRESHMAN YEAR

			Credits
C.S.	2106	Intro to Computer Sci. I	3 _____
Math	1520	Calculus I OR	
Math	1516	Calculus I w/ Alg. Enhanc.	3/4 _____
Engl.	1046	English Comp.	3 _____
*		Humanities Elective	
			3 _____
*		Social Science Elective	
			3 _____
Total Credits			15/16

			Credits
C.S.	2116	Intro to Computer Sci. II	3 _____
Math	1530	Calculus II	3 _____
HSS	1216	Principles of Speaking OR	
HSS	1226	Public Speaking	2 _____
*		Social Science Elective	
			3 _____
**		Science Elective	
			3 _____
		Free Elective	
			2 _____
Total Credits			16

SOPHOMORE YEAR

C.S.	3166	Discrete Structures	3 _____
C.S.	3546	UNIX, C, & C++	3 _____
Math	2510	Calculus III	4 _____
Math	3256	Matrices & Lin. Algebra	3 _____
**		Science Elective	
			3 _____
Total Credits			16

C.S.	2156	Assembly Language	3 _____
C.S.	3316	Data Struct & Algo. I	3 _____
Math	2236	Elem. Diff. Equations	3 _____
*		Humanities Elective	
			3 _____
**		Science Elective	
			3 _____
Total Credits			15

JUNIOR YEAR

C.S.	3326	Data Struct. & Algo. II	3 _____
C.S.	3256	Software Engineering I	3 _____
Math	3316	Intro. Statistical Methods	3 _____
**		Science Elective	
			3 _____
***		Professional Elective	
			3 _____
Total Credits			15

C.S.	3266	Software Engineering II	3 _____
C.S.	3406	Operating Systems	3 _____
C.S.	3656	Database Management	3 _____
Math	4106	Numerical Computing	3 _____
***		Professional Elective	
			3 _____
Total Credits			15

SENIOR YEAR

C.S.	4386	Theory of Computation	3 _____
C.S.	4516	Data Comm. & Network	3 _____
C.S.	4606	Senior Design Project OR	
C.S.	4916	Internship	2 _____
Engr	3210	Sci. & Tech. Writing OR	
Engl.	3896	Bus. & Prof. Writing	3 _____
***		Professional Elective	
			3 _____
Total Credits			14

C.S.	4016	Programming Lang.	3 _____
C.S.	4406	Computer Architecture	3 _____
C.S.	4556	Artificial Intelligence	3 _____
C.S.	4606	Senior Design Project OR	
C.S.	4916	Internship	2 _____
***		Professional Elective	
			3 _____
Total Credits			14

Minimum credits for B.S. degree in Computer Science = 120

* Electives must be chosen so that the General Education Requirements are met (6 credits in Social Sciences & 6 credits in Humanities).

** Science electives must include a two-semester sequence of laboratory science (min. of 12 credits total). Either (1) BIOL 1116, 1216, or 1326 and BIOL 2106 & 3106; (2) Chem 1056 w/ lab 1136, Chem 1066 w/lab 1166 plus 4 more science credits; (3) GeoE 1010, Geol 2020 plus 5 more science credits; (4) Phys 1046, 2076 w/ lab 2096, & Phys 2086 w/ lab 2106 plus 1 more science credit(**Take Phys sequence for CONTROL SYSTEMS OPTION.**)

*** Professional electives are the classes that meet the Computer Science degree options. (Professional electives on other side.)

COMPUTER SCIENCE DEGREE OPTIONS

Professional Electives --- Junior and Senior Years

2000-2001 CATALOG

Control Systems

<i>Junior Year</i>			<u>Fall</u>	<u>Spring</u>	
PHYS	3036	Electronics	3		
ENGR	2530	Intro. to Electric Circuits		3	
<i>Senior Year</i>					
*	ENGR	4450	Design Concepts for Instrumentation & Control Systems	4	
*	ENGR	4400	Introduction to Control Systems		3
*	ENGR	4270	Digital Systems Design		3
*	PHYS	4806	Microprocessors		3

* select 2 courses out of 4

Mathematical Science

<i>Junior Year</i>			<u>Fall</u>	<u>Spring</u>	
*	MATH	4056	Advanced Engineering Math	3	
	MATH	4066	Advanced Engineering Math		3
<i>Senior Year</i>					
*	MATH	4336	Probability Theory	3	
*	MATH	4416	Numerical Analysis and Techniques of Computation	3	
	MATH	4346	Statistical Theory		3
	MATH	4426	Numerical Analysis and Techniques of Computation		3

* select 2 sequences out of 3

Business Applications

<i>Junior Year</i>			<u>Fall</u>	<u>Spring</u>	
BUS	2146	Accounting I	3		
BUS	2156	Accounting II		3	
<i>Senior Year</i>					
*	BUS	3416	Business Law I	3	
*	BUS	3616	Management	3	
*	BUS	3316	Marketing		3
*	BUS	3516	Business Finance		3

* select 2 courses out of 4