



2005 – 06 PETITION/PROGRAM SHEET
Degree: Bachelor of Science
Major: Computer Science
www.mesastate.edu/schools/snsm/csms

About This Major . . .

Computer science is the study of algorithms and the issues involved in implementing them. A wide variety of exciting professional and academic opportunities exist for graduates of computer science including software engineering, computational finance, game design, computer graphics, robotics, artificial intelligence, internet systems and technology, security, hardware development, animation, medicine, biotechnology, business management and consulting, modeling, as well as masters and doctoral studies in computing-related fields. Our graduates have continued on to advanced degrees in top tier schools and are employed for IBM, Microsoft, Sun, Lockheed-Martin, and many other technical companies. The starting salary for our graduates is very competitive.

The Computer Science program at Mesa State College includes core courses in algorithms, data structures, logic, programming languages, software design, and advanced mathematics. Electives in web page design, artificial intelligence, computer graphics, game theory, databases, multimedia, and networks are also possible. The program and course offerings are constantly evolving to keep up with the latest changes in the Computer Science field.

Our Computer Science program benefits from small class sizes and close interaction between faculty and students. Upper level students are often involved in independent research with faculty or internships in local businesses. A student chapter of the ACM (Association for Computing Machinery) has monthly meetings where information about new software and computer hardware is presented and there are talks by guest speakers. Mesa State usually has several teams of students who compete in the regional programming contest sponsored by the ACM and in the past has competed in the national programming contest.

POLICIES:

1. It is your responsibility to determine whether you have met the requirements for your degree. Please see your MSC Catalog for a complete list of graduation requirements.
2. You must go to the Registrar's Office and fill out the "Intent to Graduate" form **at the beginning of the semester prior to graduating.**
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to graduating, no later than September 15 for Spring graduates, February 15 for Fall graduates.**
4. Your advisor will sign and forward the Program Sheet, Intent to Graduate Form, and Graduation Planning Sheet to the Department Head for signature.
5. Finally, the Department Head or the department administrative assistant will take the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
6. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
7. NOTE: The semester before graduation, you will be required to take a Major Field Achievement Test (Exit Exam).

NAME: _____ **STUDENT ID #** _____

LOCAL ADDRESS AND PHONE NUMBER: _____
 _____ () _____

I, (Signature) _____, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

 Signature of Advisor _____ Date _____ 20____

 Signature of Department Head _____ Date _____ 20____

 Signature of Registrar _____ Date _____ 20____

- Must earn 120 semester hours and meet the academic residency requirements to earn a baccalaureate degree at Mesa State College.
- Must earn a minimum of 40 semester hours in upper division courses (i.e., 300-level and 400-level courses).
- A cumulative grade point average of 2.0 or higher must be maintained for all courses.
- A 2.5 GPA is required in the major courses. No more than one "D" may be used in completing major requirements.
- When filling out this program sheet a course can only be used once, i.e., no double counting is allowed between categories.
- Excess HPWE courses beyond the two required and pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- All degree requirements must be completed as described. Any exceptions or substitutions must be recommended in advance by the faculty advisor and approved by the Department Head.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.
- Students are required to participate in exit examinations or other programs deemed necessary to comply with the college accountability requirement.

General Education Requirements (Minimum of 33 semester hours) See the M.S.C. catalog for the list of courses that meet the general education categories.

<u>Course</u>	<u>No.</u>	<u>Credit</u>	<u>Grade</u>	<u>Term</u>	<u>Year</u>	<u>Trns/Subs</u>	<u>Course</u>	<u>No.</u>	<u>Credit</u>	<u>Grade</u>	<u>Term</u>	<u>Year</u>	<u>Trns/Subs</u>
English: ENGL 111 and 112 (6 semester hours, must receive a "C" or higher, must be completed by the time the student has 60 semester hours)							Humanities or Social/Behavioral Science: (3 semester hours)						
*ENGL	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
*ENGL	_____	_____	_____	_____	_____	_____	Fine Arts: (3 semester hours)						
*ENGL 129, Honors English, may be substituted for ENGL 111 and ENGL 112. Must earn a grade of "C" or better. May need to take additional electives.													
Humanities: (6 semester hours)							Natural Sciences: (minimum 6 semester hours, at least one course must include a lab)						
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	Applied Studies: (3 semester hours)						
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Social and Behavioral Sciences: (6 semester hours)													
_____	_____	_____	_____	_____	_____	_____							
_____	_____	_____	_____	_____	_____	_____							

Other Requirements (13 semester hours)

Human Performance and Wellness: (3 Semester Hours)							Bachelor of Science Degree Distinction:						
							(10 semester hours) Must earn a "C" or better in both courses.						
<u>Course</u>	<u>No.</u>	<u>Credit</u>	<u>Grade</u>	<u>Term</u>	<u>Year</u>	<u>Trns/Subs</u>	<u>Course</u>	<u>No.</u>	<u>Credit</u>	<u>Grade</u>	<u>Term</u>	<u>Year</u>	<u>Trns/Subs</u>
HPWA	<u>100</u>	<u>1</u>	_____	_____	_____	_____	MATH	<u>151</u>	<u>5</u>	_____	_____	_____	_____
HPWE	_____	<u>1</u>	_____	_____	_____	_____	MATH	<u>152</u>	<u>5</u>	_____	_____	_____	_____
HPWE	_____	<u>1</u>	_____	_____	_____	_____							

See the M.S.C. catalog for the list of approved HPWE Activity courses.

Computer Science Major Requirements (50-51 Semester Hours)

A 2.5 GPA is required in the major courses. No more than one "D" may be used in completing major requirements.

<u>Course</u>	<u>No.</u>	<u>Credit</u>	<u>Grade</u>	<u>Term</u>	<u>Year</u>	<u>Trns/Subs</u>	<u>Course</u>	<u>No.</u>	<u>Credit</u>	<u>Grade</u>	<u>Term</u>	<u>Year</u>	<u>Trns/Subs</u>
CSCI	<u>111</u>	<u>4</u>	_____	_____	_____	_____	CSCI	<u>470</u>	<u>3</u>	_____	_____	_____	_____
CSCI	<u>112</u>	<u>4</u>	_____	_____	_____	_____	CSCI	<u>484</u>	<u>3</u>	_____	_____	_____	_____
CSCI	<u>241</u>	<u>3</u>	_____	_____	_____	_____	CSCI	<u>490</u>	<u>3</u>	_____	_____	_____	_____
CSCI	<u>250</u>	<u>3</u>	_____	_____	_____	_____	MATH	<u>369</u>	<u>3</u>	_____	_____	_____	_____
CSCI	<u>321</u>	<u>3</u>	_____	_____	_____	_____	STAT	<u>200</u>	<u>3</u>	_____	_____	_____	_____
CSCI	<u>330</u>	<u>3</u>	_____	_____	_____	_____							
Five courses from: CSCI 306, CSCI 333, CSCI 337, CSCI 375, CSCI 380, CSCI 445, CSCI 450, CSCI 460, CSCI 480, CSCI 486, MATH 361													
<u>Course</u>	<u>No.</u>	<u>Credit</u>	<u>Grade</u>	<u>Term</u>	<u>Year</u>	<u>Trns/Subs</u>	<u>Course</u>	<u>No.</u>	<u>Credit</u>	<u>Grade</u>	<u>Term</u>	<u>Year</u>	<u>Trns/Subs</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Electives (All college level courses appearing on your final transcript, **not listed above** that will bring your total semester hours to 120 hours. Excludes HPWE activity courses.) (24 semester hours; 7 hours of upper division may be needed.)

Course	No.	Credit	Grade	Term	Year	Trns/Subs	Course	No.	Credit	Grade	Term	Year	Trns/Subs
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

GENERAL EDUCATION REQUIREMENTS (Minimum of 33 Semester Hours) See current Mesa State College catalog for list of courses that fulfill the requirements below. If one (or more) of the selections below is required in your major, you must use it to fulfill the major requirement and **make a different selection to meet the general education requirement. The courses may not be used to fulfill both requirements.**

English – 6 Semester Hours (Must be **completed** before student has 60 semester hours. Must receive grade of “C” or above.) ENGL 111 **and** ENGL 112 **or** ENGL 129 (*by permission*)

Humanities – 6 semester hours

Social and Behavioral Sciences – 6 semester hours

Humanities or Social/Behavioral Sciences – 3 semester hours

Fine Arts – 3 semester hours

Natural Sciences – 6 semester hours (At least one course must include a lab.)

Applied Studies – 3 semester hours

OTHER REQUIREMENTS (13 Semester Hours)

Human Performance and Wellness – 3 Semester Hours

Each student must take HPWA 100 together with two HPWE Activity courses. See current catalog for listing.

Degree Distinction – 10 Semester Hours

MATH 151 Calculus I – 5 semester hours

MATH 152 Calculus II – 5 semester hours

Computer Science (50-51 Semester Hours)

A 2.5 GPA is required in the major courses. No more than one "D" may be used in completing major requirements.

Required Courses:

- CSCI 111 Computer Science I (4)
- CSCI 112 Computer Science II (4)
- CSCI 241 Computer Architecture I (3)
- CSCI 250 Data Structures (3)
- CSCI 321 Assembly Language Programming (3)
- CSCI 330 Programming Languages (3)
- CSCI 470 Operating Systems Design (3)
- CSCI 484 Computer Networks (3)
- CSCI 490 Software Engineering (3)
- MATH 369 Discrete Structures I (3)
- STAT 200 Probability and Statistics (3)

Five Courses from the following:

- CSCI 306 Web Page Design III (3)
- CSCI 333 UNIX Systems Programming (3)
- CSCI 337 User Interface Design (3)
- CSCI 375 Object Oriented Programming (3)
- CSCI 380 Operations Research (3)
- CSCI 445 Computer Graphics (3)
- CSCI 450 Compiler Structure (3)
- CSCI 460 Database Design (3)
- CSCI 480 Theory of Algorithms (3)
- CSCI 486 Artificial Intelligence (3)
- MATH 361 Numerical Analysis (4)

General Electives: 23-24 Semester Hours; 6-7 hours must be upper division.

Students are required to participate in exit examinations or other programs deemed necessary to comply with the college accountability requirement. All degree requirements must be completed as described above. Any exceptions or substitutions must be recommended in advance by the faculty advisor and approved by the Department Head.

SUGGESTED COURSE SEQUENCING FOR A MAJOR IN COMPUTER SCIENCE

FRESHMAN YEAR

Fall Semester	Hours	Spring Semester	Hours
CSCI 111 Computer Science I	4	CSCI 112 Computer Science II	4
MATH 151 Calculus I	5	MATH 152 Calculus II	5
ENGL 111 English Composition	3	ENGL 112 English Composition	3
HPWA 100 Health and Wellness	1	General Education Social/Behavioral Science	3
General Education Social/Behavioral Science	<u>3</u>	HPWE Activity (2)	<u>2</u>
	16		17

SOPHOMORE YEAR

Fall Semester	Hours	Spring Semester	Hours
CSCI 250 Data Structures	3	CSCI 241 Computer Architecture I	3
General Education Humanities	3	STAT 200 Probability and Statistics	3
Elective	3	General Education Natural Science	3
General Education Natural Science with Lab	3-4	Elective	3
General Education Applied Studies	<u>3</u>	General Education Humanities	<u>3</u>
	15-16		15

JUNIOR YEAR

Fall Semester	Hours	Spring Semester	Hours
CSCI 321 Assembly Language Programming	3	CSCI 470 Operating Systems Design	3
CSCI 330 Programming Languages	3	Computer Science Choice	3
General Education Fine Arts	3	Computer Science Choice	3
Elective	3	General Education Social/Behavioral Science or Humanities	3
MATH 369 Discrete Structures	<u>3</u>	Elective	<u>2-3</u>
	15		14-15

SENIOR YEAR

Fall Semester	Hours	Spring Semester	Hours
CSCI 484 Computer Networks	3	CSCI 490 Software Engineering	3
Computer Science Choice	3	Computer Science Choice	3
Computer Science Choice	3	Elective	3
Upper Division Elective	3	Elective	<u>3</u>
Elective	<u>3</u>		12
	15		