



**2006 – 07 PETITION/PROGRAM SHEET**  
**Degree: Bachelor of Science**  
**Major: Computer Science**  
[www.mesastate.edu/schools/snsm/csms](http://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 the MSC Catalog for a complete list of graduation requirements.
2. You must turn in your "Intent to Graduate" form to the Registrar's Office **by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December.**
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.**
4. Your advisor will sign and forward the Program Sheet 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 KINA/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>
<b>English:</b> 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)							<b>Humanities or Social/Behavioral Science:</b> (3 semester hours)						
*ENGL	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
*ENGL	_____	_____	_____	_____	_____	_____	<b>Fine Arts:</b> (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.													
<b>Humanities:</b> (6 semester hours)							<b>Natural Sciences:</b> (minimum 6 semester hours, at least one course must include a lab)						
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	<b>Applied Studies:</b> (3 semester hours)						
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
<b>Social and Behavioral Sciences:</b> (6 semester hours)													
_____	_____	_____	_____	_____	_____	_____							
_____	_____	_____	_____	_____	_____	_____							

**Other Requirements** (13 semester hours)

<b>Kinesiology:</b> (3 Semester Hours)							<b>Bachelor of Science Degree Distinction:</b>						
							(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>
KINE/HPWA	<u>100</u>	<u>1</u>	_____	_____	_____	_____	MATH	<u>151</u>	<u>5</u>	_____	_____	_____	_____
KINA/HPWE	_____	<u>1</u>	_____	_____	_____	_____	MATH	<u>152</u>	<u>5</u>	_____	_____	_____	_____
KINA/HPWE	_____	<u>1</u>	_____	_____	_____	_____							
See the M.S.C. catalog for the list of approved KINA/HPWE/Selected DANC 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>	_____	_____	_____	_____							
<b>Five courses from:</b> 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 KINA/HPWE activity courses.) (23-24 semester hours; 7 hours of upper division may be needed.)

<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>
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

**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)

**Kinesiology – 3 Semester Hours**

Each student must take KINE/HPWA 100 together with two KINA/HPWE/Selected DANC 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 (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

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered during the Fall or Spring semesters. It is the student's responsibility to meet with their advisor and check the 2 year course matrix on the Mesa State website for course availability.

### 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
KINE/HPWA 100    Health and Wellness	1	General Education Social/Behavioral Science	3
General Education Social/Behavioral Science	<u>3</u>	KINA/HPWE    Activity (2 courses)	<u>2</u>
	16		17

### SOPHOMORE YEAR

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