2010-2011 PETITION/PROGRAM SHEET
Degree: Associate of Science
Major: Liberal Arts
Emphasis: Physics
www.mesastate.edu/academics/programs.html

About This Emphasis . . .

The Associate of Science (A.S.) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The A.S. is the appropriate choice for students who will take upper division coursework in mathematics, biological sciences, and physical sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at most public institutions in Colorado. A number of emphases are available within the A.S. degree. Students choosing one of these emphases will take courses in a discipline in addition to the general education core.

Physics is the study of the universe: what it's made of and how it works, ranging from stars and galaxies to atoms and nuclei and everything in between. Physics forms the foundation of many technical fields including electronics and optics. Physics also features prominently in many of the hottest areas of current research and innovation, such as the multidisciplinary fields of nanotechnology and biophysics.

Students who continue on in the physics baccalaureate program have a wide array of options. Physics majors from Mesa State have gone on to graduate programs in physics, materials science, aerospace engineering, electrical engineering and to medical school. They have also gone directly into jobs in engineering, business, and research. Over the last ten years, Mesa State physics majors have gone to graduate schools at the University of Colorado Boulder, UC Colorado Springs, the Colorado School of Mines, UNLV, UC at Davis, North Carolina State and the University of Minnesota.

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 may 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.

_____ _____ 20____
Signature of Advisor Date

_____ _____ 20____
Signature of Department Head Date

_____ _____ 20____
Signature of Registrar Date

Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.

Degree Requirements:

- 60 semester hours total (A minimum of 16 taken at MSC in no fewer than two semesters).
- 2.00 cumulative GPA or higher in all MSC coursework and a grade point average of 2.5 or higher must be earned in the Physics area of emphasis.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- No more than one "D" may be used in completing major requirements.
- A grade of "C" or higher must be earned in all general education courses in order to be accepted for the transfer under the Core Transfer Agreements.
- A student must follow the MSC graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student's responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student's faculty advisor and Department Head.
- When filling out the program sheet a course can be used only once.
- See the "Undergraduate Graduation Requirements" in the Mesa State College catalog for additional graduation information.

GENERAL EDUCATION REQUIREMENTS (31 semester hours)
See the current Mesa State College catalog for a list of courses that fulfill the requirements below. If a course is on the general education list of options and a requirement for your major, you must use it to fulfill the major requirement and make a different selection within the general education requirement.

Course	No	Title	Sem.hrs	Grade	Term/Trns

English (6 semester hours, must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.)

ENGL	111	English Composition	3		
ENGL	112	English Composition	3		

Math: MATH 151 (3 semester hours, must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.)

MATH	151	Calculus I	5*		

*3 credits apply to the General Ed requirements and 2 credits apply to elective credit

Humanities (3 semester hours)

Course	No	Title	Sem.hrs	Grade	Term/Trns

Social and Behavioral Sciences (6 semester hours)

Natural Sciences (7 semester hours, one course must include a lab)

	L				

History (3 semester hours)

HIST					

Fine Arts (3 semester hours)

OTHER LOWER DIVISION REQUIRMENTS (5 semester hours)

Kinesiology (2 semester hours)

KINE 100	Health and Wellness	1		
KINA 1		1		

Applied Studies (3 semester hours)

PHYSICS EMPHASIS REQUIREMENTS (24 semester hours)

Core Classes (13 semester hours)

PHYS 131	Fundamental Mechanics	4		
PHYS 131L	Fundamental Mechanics Lab	1		
PHYS 132	Electromagnetism & Optics	4		
PHYS 132L	Electromagnetism & Optics Lab	1		

Choose **either** PHYS 230 Intermediate Dynamics OR PHYS 231 Modern Physics

PHYS 3				

Physics Specialization Classes (11 Semester Hours)

*MATH 151	Calculus I	2		
MATH 152	Calculus II	5		
MATH 253	Calculus III	4		

SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF SCIENCE WITH A MAJOR IN LIBERAL ARTS - EMPHASIS IN PHYSICS

This is a suggested 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 the assigned advisor and check the 2 year course matrix on the Mesa State website for course availability.

FRESHMAN YEAR

Fall Semester		Hours
PHYS 131	Fundamental Mechanics	4
PHYS 131L	Fundamental Mechanics Lab	1
ENGL 111	English Composition	3
MATH 151	Calculus I	5
General Education	History	3
		16

Spring Semester		Hours
PHYS 132	Electromagnetism and Optics	4
PHYS 132L	Electromagnetism and Optics Lab	1
ENGL 112	English Composition	3
MATH 152	Calculus II	5
General Education	Humanities	3
		16

SOPHOMORE YEAR

Fall Semester		Hours
PHYS 230	Intermediate Dynamics OR	
General Education	Applied Studies	3
MATH 253	Calculus III	4
General Education	Natural Science	4
General Education	Social/Behavioral Science	3
		14

Spring Semester		Hours
PHYS 231	Modern Physics OR	
General Education	Applied Studies	3
General Education	Fine Arts	3
General Education	Natural Science	3
General Education	Social/Behavioral Science	3
KINE 100	Health and Wellness	1
KINA	Activity	1
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