

For students who will be Freshmen AY 2005-06		Semester Hours Applied for Specific Major										May 2005
Description	Community College Course Number	<u>ASE</u>	<u>BE</u>	<u>CHE</u>	<u>CE</u>	<u>CPE</u>	<u>CS</u>	<u>EE</u>	<u>IE</u>	<u>ME</u>	<u>SE</u>	Comments
English Comp.	ENG 1113, 1123	6	6	6	6	6	6	6	6	6	6	
Speech	SPT 1113	3	3	0	0	3	3	3	3	3	3	
Humanities	History, Foreign Lang., Lit. Phil. Religion	6	6	6	6	6	6	6	6	6	6	
Fine Arts	ART or MUS 1113	3	3	3	3	3	3	3	3	3	3	
Social Science	ECO/GEO/PSC/PSY/SOC (including Anthropology)	6	6	6	6	6	6	6	6	6	6	IE take ECO 2123 and PSY 1513
Chem. I, Lab	CHE 1214	4	4	4	4	4	4	4	4	4	4	
Chem. II, Lab	CHE 1224	0	4	4	4	0	0	0	3	4	0	
Organic Chem.	CHE 2424, 2434	0	0	6	0	0	0	0	0	0	0	
Physics (Calculus-based)	PHY 2514, 2524	8	6	6	8	6	6	8	6	8	6	Or 23X3 series if calculus-based. BE, CHE, CPE, CS, IE, and SE do not take "Light and Sound"
Biology	BIO 1314 or 2414	0	0	3	0	0	4	0	0	0	4	CHE will use as technical elective.
Zoology	BIO 2414	0	4	0	0	0	0	0	0	0	0	
Calculus	MAT 1613, 1623, 2613, 2623	12	12	12	12	12	12	12	12	12	12	Or MAT 1815, 1825, 2623. CS will use 2623 as tech. elec.
Diff. Eq. I	MAT 2913	3	3	3	3	3	3	3	3	3	3	CS will use as technical elective. SE will take either MAT 2913 or MAT 2113. IE will use as science/math elective
Linear Algebra	MAT 2113	0	0	0	0	3	3	3	3	3	0	SE take either MAT 2913 or MAT 2113
C/C++	CSC 2113 or 2134	0	3	0	0	0	0	0	0	0	0	
Object-Oriented Programming	CSC 1613 & 2623 or CSC 2133 & 2143	0	0	0	0	6	6	6	0	0	6	
Graph. Comm.	GRA 1143 (CAD)	0	0	0	3	0	0	0	2	0	0	
Engr. Mech. I	EGR 2413	3	3	3	3	0	0	3	3	3	0	
Engr. Mech II	EGR 2433	3	0	0	3	0	0	0	3	3	0	
<b>Total Hours Applied Towards Degree</b>		<b>57</b>	<b>63</b>	<b>62</b>	<b>61</b>	<b>58</b>	<b>62</b>	<b>63</b>	<b>63</b>	<b>64</b>	<b>59</b>	

Majors: ASE= Aerospace, BE=Biological, CHE=Chemical, CE=Civil, CPE=Computer Engineering, CS=Computer Science, EE=Electrical, IE=Industrial, ME=Mechanical, SE=Software. Only grades of C or better will apply toward degree.

Contact: Robert A. Green, PE, Bagley College of Engineering Undergraduate Coordinator, (662)325-2267, [green@engr.msstate.edu](mailto:green@engr.msstate.edu).

[www.bagley.msstate.edu](http://www.bagley.msstate.edu)

## Application of Mississippi Community College Courses to Degree Programs in the Bagley College of Engineering at Mississippi State University

Courses taken at Community and Junior Colleges may be transferred to Mississippi State University. Courses may be applied to engineering degree programs as detailed above. Only courses in which a student has obtained a grade of 'C' or better will be applied. All courses will, however, appear on the student's transcript and be used in calculating cumulative grade point averages. The number of hours that may be applied to a degree varies with each program. Up to a maximum of one-half of the total hours in a degree program may be transferred from a two-year institution. In some programs one-half of the hours are not taught in two-year institutions so the total hours to be transferred is less than half the total degree hours. If a zero is entered for a course above, then that particular course is not required for that major and no credit can be given. Please visit our web page at [www.bagley.msstate.edu](http://www.bagley.msstate.edu) for the latest information.

All engineering programs require a total of 128 hours for graduation and a maximum of 64 hours from an accredited two-year institution may be applied to a degree.

All students are encouraged to take SPT 1113 Public Speaking even if it is not a part of the program of study. This class will prove useful to all engineers in their careers.

Only humanities, social/behavioral sciences, and fine arts that articulate directly to courses listed as Mississippi State University Core Curriculum Courses in the MSU Bulletin will apply towards a degree. The most frequent course taken that does not apply is PSY 1523, General Psychology II. Please consult you Community/Junior College advisor if you have questions.

### Application of Community /Junior College Computer Science (CSC) Courses to Mississippi State University College of Engineering Curricula

As a result of the computer initiative in the Bagley College of Engineering and the ever evolving software in use, many programs have eliminated formal programming courses and others have made modifications to their programming requirements. Some specifics are listed below.

#### **Biological Engineering**

One course in C or C++ is required. This may be taught from either a functional or object-oriented approach.

#### **Aerospace, Chemical, Civil, Industrial, and Mechanical Engineering**

There is no separate programming requirement for these degrees. The necessary computing and programming skills are developed within the curriculum major courses.

### **Computer Engineering, Computer Science, Electrical Engineering and Software Engineering**

Object-oriented programming is required. The programming language used is not as important as is the fact that the programming course be taught using the object-oriented approach. The table below serves as a guide for placement in Computer Science Courses at MSU. Additional credit may be given on an individual basis after and evaluation is performed by the Computer Science Department.

Computer Science (CSC) Courses Completed at CC/JC	Hours Applied to MSU degree in CPE, CS, EE, SE	MSU CSE Course Placement (course for which pre-requisites have been met)
None or Functional-Oriented Programming	0	CSE 1284 Introduction to Computer Programming
4 hours in object-oriented programming	4	CSE 1384 Intermediate Computer Programming
8 hours in object-oriented programming, including lists and stacks	8	CSE 2383 Data Structures and Analysis of Algorithms