

# $\overset{\text{mississippi state university}_{\text{JAMES WORTH}}}{\underline{BAGGLEKY}}_{\text{COLLEGE OF ENGINEERING}}^{\text{JAMES WORTH}}$

# Mississippi Community College Transfer Advising Guide for Students Transferring to Mississippi State University College of Engineering

	Iote: Only grades of C or better apply to program of study.Semester Hours Applied for Specific Major								Valid until superseded					
Description	Community College Course Number	ASE	BE	BME	<u>CHE</u>	CEE	CPE	CS	EE	ISE	ME	PTE	SE	Comments
English Comp	ENG 1113, 1123	6	6	6	6	6	6	6	6	6	6	6	6	
Speech	SPT 1113	0	0	0	0	0	3	3	3	3	0	0	3	
Humanities	History, Foreign Lang., Lit. Phil. Religion	6	6	6	6	6	6	6	6	6	6	6	6	"Bible" courses are not accepted.
Fine Arts	ART or MUS 1113	3	3	3	3	3	3	3	3	3	3	3	3	
Social Science	ECO/GEO/PSC/ PSY/SOC	6	6	6	6	6	6	6	6	6	6	6	6	ISE students must take ECO 2123 and PSY 1513
Chem I, Lab	CHE 1214	4	4	4	4	4	4	4	4	4	4	4	4	
Chem II, Lab	CHE 1224	0	4	4	4	4	0	0	0	3	3	4	0	
Organic Chem	CHE 2424, 2434	0	4	4	6	0	0	0	0	0	0	0	0	
Physics (Calculus- based)	PHY 2514, 2524 or PHY 2313, 2323, & 2333	8	6	6	6	3	6	6	6	6	8	6	6	BE, CEE, CHE, CPE, CS, EE, IE, and SE do not take "Light and Sound".
Biology	BIO 1134	0	4	4	31	34	0	4	0	0	0	0	4	
Calculus	MAT 1613, 1623, 2613, 2623	12	12	12	12	12	12	125	12	12	12	12	12	Or MAT 1815, 1825, 2623. CS uses 2623 as tech. elec.
Diff Eq I	MAT 2913	3	3	3	3	3	3	3 <sup>2</sup>	3	3	3	3	32	CS uses as tech. elec. SE takes either MAT 2913 or MAT 2113. IE uses as sci/math elec.
Linear Algebra	MAT 2113	3	0	0	3 <sup>2</sup>	0	3	3	3	3	3	32	32	SE takes MAT 2913 or MAT 2113.
Structured Prgm (e.g. C, Visual Basic, Fortran)	CSC 1213 or 2323	0	0	0	3	0	0	0	0	0	3	3	0	See notes on back of page.
Object- Oriented Programming	CSC 1613 & 2623 or CSC 2134 & 2144	0	0	0	0	0	8	8	8	0	0	0	8	
Graph. Comm.	GRA 1143 (CAD)	0	3 <sup>2</sup>	3 <sup>2</sup>	0	3	0	0	0	3	0	32	0	
Engr Mech I	EGR 2413	3	3	3	33	3	0	0	32	3	3	3	0	
Engr Mech II	EGR 2433	3	3	3	0	3	0	0	3 <sup>2</sup>	3 <sup>2</sup>	3	0	0	
Total Hours Available at Community Colleges		57	67	67	68	566	60	64	66	64	63	62	64	No more than 64 hours may be applied to a degree (65 for CEE).

**Majors:** ASE= Aerospace, BE=Biological, BME=Biomedical, CHE=Chemical, CEE=Civil and Environmental, CPE=Computer Engineering, CS=Computer Science, EE=Electrical, ISE=Industrial and Systems, ME=Mechanical, PTE= Petroleum, SE=Software.

**Notes:** <sup>1</sup> For CHE with Biomolecular Engineering Concentration. <sup>2</sup> Elective. <sup>3</sup> CHE with Chemical Engineering Practice Concentration. <sup>4</sup> CEE Environmental Concentration elective. <sup>5</sup> Calculus I, II, & III are required; Calculus IV is an elective. <sup>6</sup> 59 hours for Environmental Concentration

# 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 and 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 are less than half the total degree hours. If a zero is entered for a course, 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 for the latest information. Where more than 64 hours are shown as possible, students must carefully choose which courses they wish to use.

All engineering programs require a total of 128 hours for graduation with the exception of Civil Engineering which requires 130 hours. Therefore, a maximum of 64 hours (65 for CE) 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 General Education Courses in the MSU Bulletin will apply towards a degree. PSY 1523, General Psychology II will not be applied to a degree program. Old Testament, New Testament and similar "Bible" courses are not accepted; World Religions and similar courses are applicable to a degree. Please consult your Community/Junior College advisor if you have questions.

This guide is intended to aid Community/Junior College advising and is not intended to replace the advice of a community or junior college faculty advisor. Students are encouraged to meet regularly with a pre-engineering advisor at their college.

## Application of Community /Junior College Computer Science (CSC) Courses to Bagley 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.

#### **Mechanical Engineering**

One course in structured or object-oriented programming is required. The intent of the course is to develop logical problem-solving skills.

## Aerospace, Chemical, Civil, Industrial, and Petroleum Engineering

There is no separate programming requirement for these degrees. The necessary computing and programming skills are developed within the curriculum major courses. Chemical and Petroleum Engineering will substitute a structured programming course for CHE 2213 Analysis.

#### 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