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

Description	Community College Course Number	ASE	BE	BME	CHE	CEE	CPE	CS	CYSO	EE	ISE	ME	PTE	SE	Comments
English Comp	ENG 1113, 1123	6	6	6	6	6	6	6	6	6	6	6	6	6	
Speech	SPT 1113	0	0	0	0	0	0	3	3	0	3	0	0	3	
Humanities	See list below	6	6	6	6	6	6	6	6	6	6	6	6	6	
Fine Arts	See list below	3	3	3	3	3	3	3	3	3	3	3	3	3	
Social Science	See list below	6	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	4	
Chem II, Lab	CHE 1224	0	4	4	4	4	0	4^{11}	3^7	0	3	3	4	4^{11}	
Organic Chem	CHE 2424, 2434	0	4	4	8	0	0	0	0	0	0	0	0	0	
Physics (Calculus-based)	PHY 2514, 2524 or PHY 2313, 2323, & 2333	6	6	6	6	3	6	3	6^7	6	6	6	3	6	
Biology	BIO 1134	0	4	4	4^1	3^4	0	4^{11}	4^7	0	0	0	0	4^{11}	
Calculus	MAT 1613, 1623, 2613, 2623	12	12	12	12	12	12	9^5	9^5	12	12	12	12	9^5	Or MAT 1815, 1825, 2623.
Diff Eq I	MAT 2913	3	3	3	3	3	3	3^2	3^2	3	3^9	3	3	3^2	
Linear Algebra	MAT 2113	3	3	3	3^2	0	3	3	3	3	3	3	3^2	3	
Object-Oriented Prgm	CSC 1613 & 2623 or CSC 2134 & 2144	3	0	0	0	0	8	8	8	8	3	0	0	8	See notes below
Discrete Structures	CSC 2383	0	0	0	0	0	3	3	3	0	0	0	0	3	
Data Structures	CSC 2844	0	0	0	0	0	3	3	3	3	0	0	0	3	
Graphic Comm.	GRA 1143	3	0	0	0	3	0	0	0	0	2	0	3^{10}	0	
Engr Mech I	EGR 2413	3	3	3	3^3	3	0	0	0	3^2	3	3	3	0	
Engr Mech II	EGR 2433	3	3	3	3^2	3	0	0	0	3^2	3^2	3	3^2	0	
Mechanics of Materials	EGR 2453	3	3	3	0	3	0	0	0	3^2	3^2	3	3	0	
Total Hours Available at Community Colleges (See comment at right.)		**67**	**70**	**70**	**74**	**59^6**	**63**	**64**	**64**	**69**	**66**	**64**	**65**	**67**	**Max. of 64 hours may be applied to a degree (65 hours for CEE)**

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

Notes: [1] For CHE with Biomolecular Engineering Concentration. [2] Engineering Science Elective (6 hrs. max.). [3] CHE with Chemical Engineering Practice Concentration. [4] CEE Environmental Concentration elective. [5] Calculus I, & Calculus II are required; Calculus III is an elective. [6] 62 hours for Environmental Concentration. [7] BIO 1144, CHE 1224, PHY 2524, or PHY 2323 will count as Science Elective (3 hrs. max.). [8] Technical Elective (6 hrs. max.). [9] Will count towards Math/Science Elective. [10] May substitute for another course. [11] Applied as 3-hr science elective, unless satisfied elsewhere.

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. The number of hours that may be applied to a degree varies with each program. A maximum of one-half of the total hours in a degree program may be transferred from a two-year institution. Engineering programs require a total of 128 hours for graduation with the exception of Civil and Environmental Engineering which requires 130 hours. Therefore, a maximum of 64 hours (65 for CEE) from an accredited two-year institution may be applied to a degree. 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 total hours are shown as possible, students must carefully choose which courses they wish to use.

Fine Arts, Social/Behavioral Science, and Humanities are set by the MSU General Education requirements. The courses below are the only Mississippi Community and Junior College courses which satisfy those requirements.

Fine Arts	Social/Behavioral Science	Humanities
ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 1213, SPT 2233,	ECO 2113, ECO 2123, GEO 1113, PSC 1113, PSY 1513, SOC 2113 SOC 2213	ENG 2223, ENG 2233, ENG 2323, ENG 2333, ENG 2423, ENG 2433, HIS 1113, HIS 1123, HIS 1163, HIS 1173, HIS 2213, HIS 2223, MFL 1X13, MFL 1X23, MFL 2X13, MFL 2X23, PHI 2113, PHI 2143, PHI 2713

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. **"Visual" courses, such as Visual Basic are not acceptable** and will not satisfy any programming requirement.

Aerospace, Industrial & Systems, and Mechanical Engineering

Object-oriented programming is required.

Chemical, Civil, 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, Cybersecurity Operations,
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, CYSO, 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