



# State Early Childhood Advisory Council of MISSISSIPPI



## ARTICULATION AGREEMENTS

Approved by the  
State Early Childhood Advisory Council  
of Mississippi

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# Articulation Agreements

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# Program-to-Program Articulation Agreements

**Summary:** Program-to-program articulation agreements can be part of state- or system-wide efforts to encourage ongoing professional development and build workforce in a certain content area. Program-to-program articulation agreements make the transition between 2- and 4-year colleges a seamless process for new or experienced educators looking to increase their level of training. Articulation agreements minimize “wasted time” by eliminating the uncertainty around which credits will transfer between various higher education programs and minimizing the need to take multiple classes that cover similar content. Mississippi has an articulation agreement in place for individuals with an Associate in Arts (AA) degree, but this articulation agreement does not honor Associate of Applied Science (AAS; technical) degrees. In addition to creating this important connection, there is also a need to develop stronger articulation agreements across higher education early childhood teacher preparation programs. This will help the State of Mississippi meet a much-needed demand for high-skilled early education teachers and supervisors.<sup>1</sup> The following summary provides information about articulation agreements to illustrate the considerations and possibilities for consideration as SECAC moves forward with recommendations for the development of a statewide articulation agreement across all 2- and 4-year early childhood programs. Articulation agreements from more than 10 states were reviewed to gather information about common elements, considerations for developing comprehensive agreements, and types of agreements.

## Common Elements of Program-to-Program Articulation Agreements<sup>2</sup>

There are four common elements across the different types. These are:

- A common general education curriculum that is consistent throughout all public institutions, which allows “block credit transfer” of general education courses even when credits do not amass to an associate’s degree
- A common course number system wherein differently named courses may be identified as identical in terms of degree requirements<sup>3</sup>
- Guaranteed admissions policies for students who complete an Associate degree in good standing
- Communications to the public about the terms agreement are proactive and plenty<sup>4</sup>

## Designing a Comprehensive Agreement Program – Considerations

There are four general considerations for designing articulation agreements.

- Comprehensive agreements should be steered by a standing committee of stakeholders who are responsible for monitoring the development and implementation of all agreement terms.<sup>5</sup>
- The design phase of the agreement should include faculty from each school represented in the agreement and should be invitational to private postsecondary institutions.<sup>6</sup>

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<sup>1</sup> Center for American Progress: The Council for Adult and Experiential Learning. 2011. “Articulation Agreements and Prior Learning Assessments: Tools to Help 21st Century Students Achieve Their Postsecondary Education Goals and Keep America Competitive”; Munger, Mary C., Ed Hammer, Charles Munger. 2013. “Texas Early Childhood Education Degree Articulation Toolkit.” MCCM Associates and the Texas Early Learning Council.

<sup>2</sup> Western Interstate Commission for Higher Education and Hezel Associates. 2009. “Best Practice in Statewide Articulation and Transfer Systems” and “Promising Practices in Statewide Articulation and Transfer Systems.”

<sup>3</sup> Common course numbering may be based on fully identical course content or on similar learning outcomes.

<sup>4</sup> Information should be accessible and reliable; it is suggested that transfer and articulation agreement information be available online and in print through each Institution included in the agreement as well as on State Department of Education websites and in those offices.

<sup>5</sup> This includes representatives from Admissions and Financial Aid offices, as well as faculty and administration from both 2- and 4-year colleges.

<sup>6</sup> Articulation Agreements are often negotiated or mandated by state actors. Invitations to the private sector will be fruitful for achieving highly effective agreement programs.

- The design should include plans for data collection systems and processes to track transfer patterns so that programs may be adjusted based on actual data on articulation between programs.
- The program design should be reviewed once per year for course-listing changes, degree requirement changes, etc.

## Types of Agreements

There are three main types of articulation agreements in place.

Statewide agreements are written into legislation or statutes that specify the transfer policy between some or all of the state's public postsecondary institutions. Colorado has a legislated program-to-program articulation agreement between all Colorado Public Community/Junior Colleges and all Colorado Public 4-year institutions of higher education.<sup>7</sup>

### *Quick Facts:*

- Statewide agreements are the most common form of agreements<sup>8</sup>
- Statewide agreements are considered to be the most efficient in terms of time and money for students because they are universally employed by all institutions of higher learning, thus completely minimizing uncertainty about what courses will transfer<sup>9</sup>
- Statewide agreements usually involve a legislative mandate for all public 2- and 4-year colleges to organize and define an agreement program
- The design phase of statewide agreement program is usually carried out by a group of representatives from all higher education institutions in the state

Institution-to-institution agreements are made on an individual basis between specific 2- and 4-year colleges within a state. The University of Missouri curated institution-to-institution agreements between several community colleges and each of its three main campuses (Columbia, St. Louis, Kansas City).<sup>10</sup>

### *Quick Facts:*

- This type of agreement may be spurred by legislation suggesting an agreement program to be formed, but ultimately the individual institutions that engage in an agreement are responsible for the design, implementation, and interpretation of the agreement terms
- These agreements are most popular in states where a clear feeding system into the 4-year University is established or where reluctance to statewide organizing is strong
- Since the programs are not statewide mandates, these agreements may be more conducive to the inclusion of private institutions

Agreements between higher education unions or governing bodies are explicit statements between two or more representative groups on behalf of two or more colleges. A program-to-program articulation agreement was negotiated between the Board of Governors of the University of North Carolina and the State Board of The

<sup>7</sup> For details from this agreement, see Appendix A. The complete agreement program may be found at <http://higherred.colorado.gov/academics/transfers/Agreements/earlychildhood.pdf>.

<sup>8</sup> Research suggests that while "top--down" mandates can be effective in spurring the conversations on articulation and transfer agreements, outcomes tend to be best when the state higher education offices, governing boards, and institutions work collaboratively to develop the terms of agreement.

<sup>9</sup> Munger, et al., 2013.

<sup>10</sup> For details from this agreement, see Appendix A. The complete agreement program may be found at <http://dhe.mo.gov/cota/aecepguidelines.php>.

North Carolina Community College System.<sup>11</sup> The Comprehensive Articulation Agreement (CAA) applies to all fifty-eight North Carolina community colleges and all sixteen constituent institutions of The University of North Carolina.

#### **Quick Facts:**

- This type of agreement may be spurred by legislation suggesting an agreement program to be formed but ultimately the individual representative bodies that engage in an agreement are responsible for the design, implementation, and interpretation of the agreement terms
- Agreements between unions and governing bodies are most popular in states where higher education institutions are organized under such representative groups
- Since the programs are not statewide mandates, these agreements may be more conducive to the inclusion of private institutions

## **State Examples of Early Childhood Education Program-to-Program Articulation Agreements**

### **Colorado's Statewide Articulation Agreement**

All public community/junior colleges and all public 4-year institutions of higher education are engaged in this agreement program. The agreement is legislated by the state but was designed by a steering committee of representatives from all institutions the agreement applies to. The pivotal terms of the agreement is 100% synchrony between institutions in the delivery of a common early childhood education core requirements.

#### **The Agreement**

##### Section I. Graduation Requirements

- Transfer students are required to meet the same admission and graduation requirements as native students; the student must apply and be admitted to all institutions in order for the legislation to be applied to their transfer.
- Universal transfer of all common early childhood education core requirements shall be honored between institutions, even if the initial degree program is not completed.
- 54 credit hours are outlined as the common early childhood education core requirements; students complete 60 hours total for an Associate's degree. The additional 6 hours at community/junior shall be mutually agreed upon between universities for transfer.

##### Section II. Transfer of Credit

- Only courses with a letter grade of "C" or better will be accepted for transfer.
- The four-year college or university will accept all credit in the articulated agreement earned within ten years of transfer.

##### Section III. Student Appeals Process

- An appeal related to the denial of transfer credits will follow the Colorado Commission on Higher Education student appeals process.

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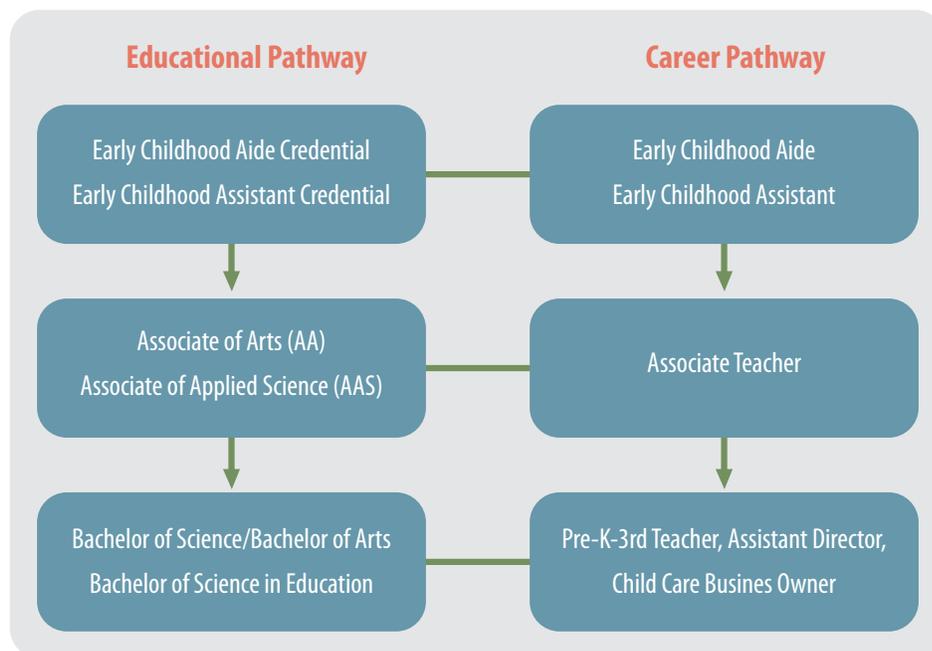
<sup>11</sup> For details from this agreement, see Appendix A. The complete agreement program may be found at [http://www.northcarolina.edu/sites/default/files/caa--feb\\_21\\_2014--board\\_approved.pdf](http://www.northcarolina.edu/sites/default/files/caa--feb_21_2014--board_approved.pdf).

## The University of Missouri Institution-to-Institution Agreements

The first step of this agreement program was a legislative proclamation suggesting the problematic transfer system be addressed. An at-large steering committee was formed between representatives from several 2- and 4-year colleges. The steering committee set several guidelines with the assumption that Missouri institutions would negotiate their own specific agreements.

### The Guidelines

- A.** A consistent nomenclature for degree titles
- Early Childhood Aide Credential, C0 (Single--Semester Credential)
  - Early Childhood Assistant Credential, C1 (One--Year Credential)
  - Associate of Arts (AA; with emphasis in Early Childhood)
  - Associate of Applied Sciences (AAS; Early Childhood Development)
  - Bachelor of Science/Bachelor of Arts in Child Development or Early Childhood Education (BS/BA)
  - Bachelor of Science in Education (BSEd)
- B.** An educational pathway with clearly defined expected competencies for each degree level and matching appropriate professional/career titles with educational attainment (i.e., degree levels).



### The Agreement between University of Missouri-St. Louis and St. Louis Community College

The pivot terms of this agreement program are guaranteed transfer and common general education courses:

- The AA and AAS degrees both include 27 Early Childhood Education credits and are guaranteed to transfer to the BS/BA or BSEd at UMSL.
- All general education credits are synchronized between STLCC and UMSL (for all majors) and are guaranteed to transfer to the BS/BA or BSEd.
- The AAS degree is strong in the early childhood education area and requires less general education credits than the AA degree, therefore AAS students will transfer less total credits. Transfer of credits beyond the guaranteed is at the discretion of the receiving University.

## Agreement between higher education unions or governing bodies in North Carolina.

All branches of the University of North Carolina and all schools represented by the State Board of The North Carolina Community College System are engaged in this agreement program. The pivotal terms of this agreement is guaranteed admission and guaranteed transfer of all general education and pre-major courses that are specified in the degree program.

### The Comprehensive Articulation Agreement (CAA)

Admission to any UNC constituent is guaranteed under the following conditions:

- Admission is not assured to a specific campus or specific program or major.
- Students must have graduated from a North Carolina community college with an Associate in Arts or Associate in Science degree.
- Students must have an overall GPA of at least 2.0 on a 4.0 scale, as calculated by the college from which they graduated, and a grade of "C" or better in all CAA courses.
- Students must be academically eligible for re--admission to the last institution attended.
- Students must meet judicial requirements of the institution to which they apply.
- Students must meet all application requirements at the receiving institution, including the submission of all required documentation by stated deadlines.

### Other Terms

- The authority to interpret the agreement resides in an 8--person committee joint appointed by the Presidents of UNC and the NC Community College system.
- Both UNC and Community Colleges offer general education and pre-major courses that are outside of the aligned curriculum plan. Responsibility for knowing which courses are aligned falls on the student.
- If the student does not complete the AA or AS degree, guaranteed transfer is still honored (but not guaranteed admission).

## “2+2” Articulation Agreements

**Summary:** The SECAC Professional Development and Workforce Committee requested additional research on articulation agreements, specifically those that illustrate “2+2” articulation agreements for individuals with technical degrees. This document will explain the “2+2” agreement practice and provide examples of this type of agreement from Texas and Tennessee.

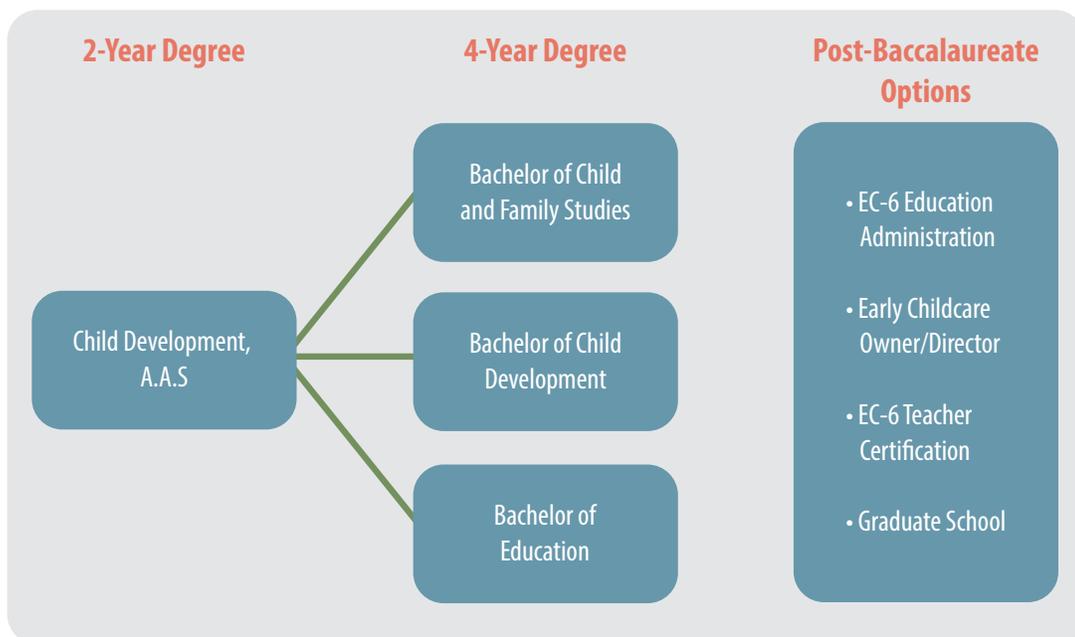
### “2+2” Articulation Agreements

“2+2” is a colloquial term in articulation agreement programs that refers to agreements underpinned by guaranteed credit transfer. In sum, courses taken toward a 2-year degree (2) are guaranteed to transfer to a 4-year University where the student will continue toward the bachelor’s degree, beginning their study as a junior and completing their degree after 4 semesters (+2). Some articulation agreement programs offer guaranteed admission of 2-year degree holders to 4-year programs. Still, the actual practice underpinning these agreements is the guaranteed transfer of the credits earned during the 2-year degree toward the 4-year degree program.

### Examples of “2+2” Agreements – Texas and Tennessee

#### TEXAS

Texas does not have a statewide articulation agreement for early childhood education programs; all EC articulation programs in Texas are worked out locally as “Institution-to-Institution Agreements.” The Texas Early Learning Council (SECAC equivalent) released an “Early Childhood Education Degree Articulation Toolkit” in May 2013 as part of Council deliverables. Since then, several institutions of higher learning have engaged in the “Institution-to-Institution agreement” option. The crux of the Texas Council’s agreement recommendations is course alignment and guaranteed credit transfer, and guaranteed admission. Additionally, the Toolkit suggests 2- and 4-year Institutions coordinate program requirements so that 2-year technical degrees may articulate to a number of Bachelor’s degrees related to early childhood education.



Other 4-year institutions in Texas offer 4-year degrees for individuals already earning a technical degree. University of North Texas offers a Bachelor of Applied Arts and Sciences (BAAS) degree available to students who have already obtained a technical degree at a 2-year institution. Coursework reflects career goals of the

students that encompass many careers including early childhood education. Texas Tech offers a BAAS degree to individuals who have completed an associate's degree including 60 credit hours at the 2-year institution that are able to transfer to Texas Tech.<sup>12, 13, 14</sup>

Specifically, Western Texas Community College and McMurry University have engaged in an Institution-to-Institution agreement that is an exemplar of the Texas ELC recommendations, employing all three of these recommendations. The terms of this agreement are presented in Appendix A.

## TENNESSEE

Tennessee employs a statewide agreement program called Tennessee Transfer Pathways (TTP). Students follow a particular "pathway" depending on their intended 4-year degree. This program is rigid and requires much forethought for young students who must determine at the very beginning of their higher education career which "pathway" to commit to. The crux of the TTP agreement program is an aligned general education curriculum and guaranteed credit transfer of all courses that are designated as TTP courses. When the student graduates from the 2-year technical program their transcript is 'marked,' reflective of completing the first "2" of a certain 2+2 pathway. Admission to the "+2" portion of the pathway is based on admission requirements of the 4-year University. Detailed terms of this agreement program are presented in Appendix B.

## 2+2 Appendix A: TEXAS

McMurry University maintains a general education agreement program with Western Texas College that applies across all degrees offered by both McMurry and Western Texas. The terms of that agreement program are pictured to the right.

An additional agreement explains the Early Childhood Education courses that will also transfer, which, if taken alongside the general education courses, will land the student as a junior once they enroll at McMurry University (next page).

McMurry University guarantees admission for students with a cumulative 2.75 GPA in these courses and with a minimum threshold THEA/TSI (statewide higher education exam) results. West Texas is one of several 2-year colleges McMurry University has Early Childhood Education agreements worked out with. Each agreement is different as the name and designation of course equivalents changes from 2-year college to 2-year college.

<b>MCMURRY UNIVERSITY</b>	
<b>Articulation of General Education Courses</b>	
<b>Western Texas College to McMurry University</b>	
The following courses will transfer from Western Texas College, with a grade of C or higher, and meet General Education requirements, based on the McMurry University 2008-2009 catalog and the WTC 2008-2009 catalog. There are additional General Education requirements that must be completed at McMurry upon matriculation.	
<u>Western Texas Course Number</u>	<u>McMurry Equivalent Course Number</u>
English 1301 and 1302	ENG 1310 and 1320
Speech 1315	COMM 1310
Philosophy 2306	S LD 1300
PHED 1238 & 1 course from 1100-1101	HF 1210
3 hours from:	
English 2322	ENG 2311
English 2326	ENG 2321
English 2332, 2333	(no direct equivalent but will sub for this requirement)
3 hours from:	
Math 1314*	MATH 1311
Math 1316	MATH 1312
Math 2413	MATH 2421 (most science degrees require Calculus)
3 hours from:	
Art 1301	ART 1300
Drama 1310	THRE 1300
3 hours from:	
History 2311	HIST 1310
History 2312	HIST 1320
Philosophy 1304	REL 2350
6 hours from two different disciplines:	
History 1301, 1302	HIST 2310, 2320
Psychology 2301*, 2314	PSYC 1340, 2360
Sociology 1301*	SOC 2300
Government 2305,	P SC 2310
Economics 2301, 2302	ECON 2310, 2320
4 hours laboratory science from the following Western Texas courses:	
Biology 1406, 2301*/2101*, 2302*/2102*	
Chemistry 1305/1105, 1411	
Geology 1401, 1402	
Physics 1401	
* This is the appropriate selection for students interested in nursing as a major.	
Some degrees at McMurry require one or two years of a foreign language. If so, part or all of the foreign language requirement may be taken at the community college. The McMurry Foreign Language requirement is on page 33 of the 2008-2009 catalog, which can be found at <a href="http://www.mcm.edu">www.mcm.edu</a> .	

<sup>12</sup> For details if this agreement visit, [http://www.depts.ttu.edu/universitystudies/prospective\\_students/baas.php](http://www.depts.ttu.edu/universitystudies/prospective_students/baas.php).

<sup>13</sup> For details if this agreement visit, <http://www.unt.edu/baas/>.

<sup>14</sup> For details if this agreement visit, <http://www.owls.txstate.edu/undergraduate-degrees/applied-arts-sciences.html>.

## EARLY CHILDHOOD ARTICULATION AGREEMENT

### Western Texas College/McMurry University

The following courses at Western Texas College will meet requirements in the Combination of Subjects area of the MS EC-4 major at McMurry University. Please refer to the list of General Articulation courses for those that will meet general education requirements at McMurry. Courses accepted for transfer to McMurry must have a grade of "C" or higher. Courses completed at WTC are not used to meet the advanced requirement at McMurry.

<u>Western Texas College Courses</u>	<u>McMurry University Equivalent Courses</u>
CDEC 2315 Multicultural/Multilingual Education	READ 3334 Reading & Language Arts in the Multilingual Classroom
CDEC 1358 Creative Arts for Early Childhood	ART 3370/ CI 3399 The Arts in Elementary Schools
EDUC 1301 Intro to the Teaching Profession	CI 2310 Intro to Education
EDUC 2301 Intro to Special Populations	CI 3302 American Public Education
MATH 1350 Fundamentals of Mathematics I	CI 3330 Teaching Elementary Math I
MATH 1351 Fundamentals of Mathematics II	CI 3331 Teaching Elementary Math II
<i>Must take the following 3 course sequence:</i>	
CDEC 1311 Intro to Early Childhood CDEC 1459 Children with Special Needs CDEC 1354 Child Growth and Development	ECED 4300 Theories and Foundations of Early Childhood Education
<i>Must take the following 3 course sequence:</i>	
CDEC 2341 The School Age Child CDEC 1313 Curriculum Resources for Early Childhood Education CDEC 1319 Child Guidance	ECED 4301 Methods, Materials, & Organization: The Early Childhood Classroom

## 2+2 Appendix B: TENNESSEE

An aligned general education curriculum and guaranteed credit transfer of all courses underpins the Tennessee Transfer Pathways program. The general education agreement is pictured to the right; the early childhood education concentration is pictured on the next page.

The Tennessee articulation agreement program is governed and endorsed by the State of Tennessee Higher Education Commission; the University of Tennessee; the Tennessee Independent Colleges and Universities Association; and the Tennessee Board of Regents. Students are guaranteed to transfer all credits (if they meet respective University entry requirements) and begin as a junior in the respective 4-year degree program if they take these credits and earn the TTP mark on their transcript. Other requirements related to this program are pictured below.

### A. S. T. Degree Associate of Science in Teaching Degree

#### General Education Requirements

<b>Communication</b>	<b>9 hours</b>
ENGL 1010 Composition I	3 hours
ENGL 1020 Composition II	3 hours
SPCH 1010 Fundamentals of Speech Comm. or other approved speech/communication course	3 hours
<b>Humanities and/or Fine Arts (at least one course in literature)</b>	<b>9 hours</b>
Approved Literature Course	3 hours
Approved Art Appreciation or Music Appreciation Course	3 hours
Approved Humanities Course	3 hours
<b>History</b>	<b>6 hours</b>
Two Approved History Courses	6 hours
<b>Social/Behavioral Sciences</b>	<b>6 hours</b>
Approved World Regional Geography Course	3 hours
Approved Social/Behavioral Science Course	3 hours
<b>Natural/Physical Sciences</b>	<b>8 hours</b>
Approved Biological/Life Science Course	4 hours
Approved Physical/Earth Science Course	4 hours
<b>Mathematics</b>	<b>3 hours</b>
Approved Math Course*	3 hours
<b>General Education Total</b>	<b>41 hours</b>

#### Additional Degree Requirements:

Students earning an AST degree must meet the following:

- Attachment of 2.75 cumulative grade point average
- Successful completion of approved standardized examination for admission to university Colleges of Education
- Satisfactory ratings on an index of suitability for the teaching profession

**i** Area of Emphasis Requirements

<b>ECED</b>	<b>15 hours</b>
Introduction to Education	3 hours
ECED 1310 Introduction to Early Childhood Education	3 hours
ECED 2320 Infant, Toddler, Child Development	3 hours
ECED 2340 Family Dynamics & Community Involvement	3 hours
Introduction to Special Education -or- Development of Exceptional Children**	3 hours
<b>Mathematics</b>	<b>3 hours</b>
Math for Elementary Education 1	3 hours
<b>Additional Course</b>	<b>3 hours</b>
Development Psychology, Educational Psychology, Life Span or Human Growth and Development	3 hours
<b>Area of Emphasis Total</b>	<b>21</b>
<b>Early Childhood (Pre K-3) A.S.T. Total</b>	<b>62 hours</b>

# The Current Status of General and Early Childhood Education Articulation Agreements in Mississippi

## Mississippi's Statewide Articulation Agreement

A statewide articulation agreement between the Mississippi Board of Trustees of State Institutions of Higher Learning (IHL) and the Mississippi Community College Board is currently active and includes all public 2- and 4-year colleges and universities in the state. The agreement plan is comprehensive and is built using a number of best practices, including:

- An aligned curriculum and course offering;
- An aligned course numbering system; and
- Guaranteed transfer of aligned courses

The statewide agreement plan is underpinned by an aligned "IHL Board Core Curriculum"<sup>15</sup> that is commonly offered and listed across all participating 2- and 4-year institutions. If the student earns a grade of "C" or better, these courses are guaranteed to transfer to and from each of the 2- and 4-year institutions these two governing bodies represent. Upon transfer, these courses will satisfy the IHL core curriculum requirement that is currently mandatory at each IHL institution.<sup>16</sup>

The active articulation agreement includes a number of program-to-program agreements, or "2+2" agreement plans. Students should consult these individual plans to verify what non-IHL core curriculum courses are eligible for transfer toward a specific degree program.

## Current Early Childhood Education (and related fields) Articulation Agreements in Mississippi<sup>17</sup>

Mississippi public Universities currently host a number of early childhood-related degree programs. These programs and the status of articulation agreements among them are outlined.

- B.S. Early Childhood Education: Mississippi Valley State University is the only public university in Mississippi offering a degree in Early Childhood Education. MVSU is currently engaged in an agreement with all public 2-year institutions in the state.
- B.S. Child Development: A Bachelor of Science in Child Development is currently offered by Alcorn State and Delta State. Both Universities are currently engaged in an agreement with all public 2-year institutions in the state.
- B.S. Elementary Education, Early Childhood Endorsement/Concentration: Mississippi State University is the only institution with an Early Childhood endorsement or concentration option as part of the Elementary Education degree. MSU is currently engaged in an agreement with all public 2-year institutions in the state.
- B.S. Family Studies: Mississippi University for Women is the only institution currently offering a 4-year degree in Family Studies. MUV is currently engaged in an agreement with all public 2-year institutions in the state.
- B.S. Child and Family Studies/Sciences: Jackson State University and the University of Southern Mississippi both offer degree programs in Child and Family Studies/Sciences. Both Universities are currently engaged in an agreement with all public 2-year institutions in the state.

<sup>15</sup> Specified in Board Policy Section 512.

<sup>16</sup> General education requirements for baccalaureate programs at the receiving institutions may exceed the minimum IHL core curriculum. In such cases, transfer students may need to take additional courses to satisfy these requirements. Certain undergraduate degrees have pre-major course requirements and other pre-requisites that will not necessarily be satisfied by the AA degree. Guaranteed course transfer does not guarantee admission to any degree program. Students should consult program-to-program articulation agreements to ensure they are able to transfer in to the major of their choice. Mississippi public IHLs are Alcorn State University, Delta State University, Jackson State University, Mississippi State University, Mississippi University for Women, Mississippi Valley State University, University of Mississippi, and the University of Southern Mississippi.

<sup>17</sup> Each of these individual program agreements is underpinned by the guaranteed transfer of the IHL core curriculum courses which are commonly named and listed across all public 2- and 4-year institutions. Other idiosyncrasies are listed in the program agreement guide.

## Program-to-Program Articulation Agreements in Mississippi: Engineering and Forestry

**Summary:** Three 4-year public universities in Mississippi are engaged in program-to-program articulation agreement plans with all 2-year public institutions for degrees in the field of Engineering. One 4-year public university is engaged in a program-to-program articulation agreement with all 2-year public institutions for a degree in Forestry. Each of these individual program-to-program agreement plans is underpinned by the statewide articulation agreement plan. This document will outline the active statewide articulation agreement plan and provide an overview of program-to-program agreement plans in engineering and forestry degrees.

### Mississippi's Statewide Articulation Agreement

A statewide articulation agreement between the Mississippi Board of Trustees of State Institutions of Higher Learning (IHL)<sup>18</sup> and the Mississippi Community College Board is currently active and includes all public 2- and 4-year colleges and universities in the state. The agreement plan is comprehensive and is built using a number of best practices, including:

- An aligned curriculum and course offering;
- An aligned course numbering system; and
- Guaranteed transfer of designated/aligned courses

The statewide agreement plan is underpinned by an aligned "IHL Board Core Curriculum"<sup>19</sup> that is commonly offered and listed across all participating 2- and 4-year institutions. If the student earns a grade of "C" or better, these courses are guaranteed to transfer to and from all of the 2- and 4-year institutions these two governing bodies represent. Upon transfer, these courses will satisfy the IHL core curriculum requirement that is currently mandatory at each IHL institution.<sup>20</sup>

### Program-to-Program Articulation Agreement Plans: Engineering and Forestry

A number of 4-year universities in Mississippi are engaged in program-to-program articulation agreements for the Bachelor of Science in Engineering and the Bachelor of Science in Forestry. All program-to-program agreement plans are underpinned by the statewide articulation agreement plan, meaning that many of the courses listed in each program-to-program agreement plan are designated as IHL Board Core Curriculum courses and are those guaranteed to transfer to and from all public 2- and 4-year institutions, satisfying the IHL core curriculum requirement that is standard across all public institutions in Mississippi.

Individual program-to-program agreement plans also indicate the unique combination of courses (including courses outside of the IHL core curriculum courses) that are guaranteed to transfer toward the specific degree program. Adherence to these unique program plans will most often position the student at the beginning of their 3rd year of study toward a 4-year degree upon completion of the 2-year degree corresponding to the individual degree plan.

Four 4-year public universities in Mississippi are currently engaged in program-to-program articulation agreement plans with all 2-year public institutions for degrees in the field of Engineering. One 4-year public university is engaged in a program-to-program articulation agreement with all 2-year public institutions for a degree in Forestry. Each 4-year University has outlined a unique combination of courses (in addition to the Core

<sup>18</sup> Alcorn State University, Delta State University, Jackson State University, Mississippi State University, and Mississippi University for Women, Mississippi Valley State University, University of Mississippi, and the University of Southern Mississippi.

<sup>19</sup> Specified in Board Policy Section 512

<sup>20</sup> General education requirements for baccalaureate programs at the receiving institutions may exceed the minimum IHL core curriculum. In such cases, transfer students may need to take additional courses to satisfy these requirements. Certain undergraduate degrees have pre-major course requirements and other pre-requisites that will not necessarily be satisfied by the AA degree. Guaranteed course transfer does not guarantee admission to any degree program. Students should consult program-to-program articulation agreements to ensure they are able to transfer in to the major of their choice.

Curriculum courses accepted by all institutions) that are guaranteed to transfer toward the specific engineering degree offered at that institution.<sup>21</sup>

**Mississippi State University (MSU)** is currently engaged in program-to-program agreement plans toward the following undergraduate engineering degree programs (number of incoming hours detailed in the current agreement plan):

- B.S. in Aerospace Engineering (57-58)
- B.S. in Biological Engineering (60)
- B.S. in Chemical Engineering (63)
- B.S. in Civil Engineering (59)
- B.S. in Computer Engineering (60)
- B.S. in Electrical Engineering (60)
- B.S. in Industrial Engineering (62-64)
- B.S. in Mechanical Engineering (64)
- B.S. in Software Engineering (59-61)

**Jackson State University (JSU)** is currently engaged in program-to-program agreement plans toward the following undergraduate engineering degree programs (number of incoming hours detailed in the current agreement plan):

- B.S. in Civil Engineering (64)
- B.S. in Computer Engineering (63)
- B.S. in Electrical Engineering (64)
- B.S. in Telecommunication Engineering (60)

**University of Mississippi (UM)** is currently engaged in program-to-program agreement plans toward the following undergraduate engineering degree programs (number of incoming hours detailed in the current agreement plan):

- B.S. in Chemical Engineering (63)
- B.S. in Civil Engineering (60)
- B.S. in Electrical Engineering (54)
- B.E. in Engineering (64)
- B.S. in Geological Engineering (64)
- B.S. in Mechanical Engineering (64)

**University of Southern Mississippi (USM)** is currently engaged in program-to-program agreement plans toward the following undergraduate engineering degree programs (number of incoming hours detailed in the current agreement plan):

- B.S. in Polymer Science and Engineering (66)

**Mississippi State University (MSU)** is currently engaged in a program-to-program agreement plan toward the following undergraduate forestry degree program (number of incoming hours detailed in current agreement plan):

- B.S. in Forestry (62-63)

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<sup>21</sup> Each program-to-program articulation agreement is unique to the receiving 4-year university. In other words, the MSU B.S. in Civil Engineering agreement plan is similar to the JSU B.S. in Civil Engineering agreement plan but is not exactly the same. Students should be familiar with the IHL Core Curriculum Courses and the unique terms of program-to-program plan detailed by their anticipated 4-year university.

## Appendix A – Additional Breakdown of Current Program-to-Program Articulation Agreements: Engineering and Forestry

A number of 4-year universities in Mississippi are engaged in program-to-program articulation agreements for the Bachelor of Science in Engineering and the Bachelor of Science in Forestry. All program-to-program agreement plans are underpinned by the statewide articulation agreement plan, meaning that many of the courses listed in each program-to-program agreement plan are designated as IHL Board Core Curriculum courses and are those guaranteed to transfer to and from all public 2- and 4-year institutions, satisfying the IHL core curriculum requirement that is standard across all public institutions in Mississippi.

Individual program-to-program agreement plans also indicate the unique combination of courses (including courses outside of the IHL core curriculum courses) that are guaranteed to transfer toward the specific degree program. Adherence to these unique program plans will most often position the student at the beginning of their 3rd year of study toward a 4-year degree upon completion of the 2-year degree corresponding to the individual degree plan.

Four 4-year public universities in Mississippi are currently engaged in program-to-program articulation agreement plans with all 2-year public institutions for degrees in the field of Engineering. One 4-year public university is engaged in a program-to-program articulation agreement with all 2-year public institutions for a degree in Forestry. Each 4-year University has outlined a unique combination of courses (in addition to the Core Curriculum courses accepted by all institutions) that are guaranteed to transfer toward the specific engineering degree offered at that institution.<sup>22</sup>

Four-Year Degree Program	Offered By				Number of Detailed Hrs
	MSU	JSU	UM	USM	
B.S. in Aerospace Engineering	•				57-58
B.S. in Biological Engineering	•				60
B.S. in Chemical Engineering	•		•		63
B.S. in Civil Engineering	•	•	•		59-64
B.S. in Computer Engineering	•	•			60-63
B.E. in Engineering			•		64
B.S. in Electrical Engineering	•	•	•		54-64
B.S. in Geological Engineering			•		64
B.S. in Industrial Engineering	•				62-64
B.S. in Mechanical Engineering	•		•		64
B.S. in Polymer Science/Engineering				•	66
B.S. in Software Engineering	•				59-61
B.S. in Telecommunication Engineering		•			60
B.S. in Forestry	•				62-63

<sup>22</sup> Each program-to-program articulation agreement is unique to the receiving 4-year university. In other words, the MSU B.S. in Civil Engineering agreement plan is similar to the JSU B.S. in Civil Engineering agreement plan but is not exactly the same. Students should be familiar with the IHL Core Curriculum Courses and the unique terms of program-to-program plan detailed by their anticipated 4-year university.

## Appendix B – Snapshots of Program-to-Program Articulation Agreement Plans: Engineering and Forestry

### AEROSPACE ENGINEERING BS

Degrees offered by: MSU		
CIP: 14.0201		
<b><u>Communication</u></b>		
English Composition I & II	ENG 1113, ENG 1123	6
<b><u>Humanities</u></b>		
Fine Arts	ART 1113, DAN 1113, MUS 1113, SPT 2233	3
Humanities	ENG 2223, ENG 2233, ENG 2423, ENG 2433, HIS 1113, HIS 1123, HIS 1163, HIS 1173, HIS 2213, HIS 2223, PHI 2113, PHI 2713	6
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSY 1513, SOC 2113, SOC 2213	6
<b><u>Sciences</u></b>		
General Chemistry I	CHE 1214	4
General Physics I-A & II-A or Physics I, II, & III (Hinds CC)	PHY 2514, PHY 2524 PHY 2310, PHY 2323, PHY 2333	8-9
<b><u>Mathematics</u></b>		
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
Intro to Linear	MAT 2113	3
<b><u>Major</u></b>		
Engineering Mechanics I & II	EGR 2413, EGR 2433	6
<b>MSU Total</b>		<b>57-58</b>

**BIOLOGICAL ENGINEERING**

**BS**

Degrees offered by: MSU		
CIP: 14.0501		
<b>Communication</b>		
English Composition I & II	ENG 1113, ENG 1123	6
<b>Humanities</b>		
Fine Arts	ART 1113, DAN 1113, MUS 1113, SPT 2233	3
Humanities	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 1113, MFL 1123, MFL 1213, MFL 1223, MFL 2213, MFL 2223, PHI 2113, PHI 2713	6
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSY 1513, SOC 2113, SOC 2213	6
<b>Sciences</b>		
General Biology I	BIO 1134	4
General Chemistry I & II	CHE 1214, CHE 1224	8
General Physics I-A & II-A	PHY 2514, PHY 2524	6
<b>Mathematics</b>		
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
<b>Major</b>		
Programming I with "C++"	CSC 2134	3
Graphic Communications	GRA 1143	3
<b>MSU Total</b>		<b>60</b>

**CHEMICAL ENGINEERING**

**BS, BSCHE**

Degrees offered by: MSU, UM		
CIP: 14.0701		
<b>COMMON COURSES ACCEPTED BY ALL INSTITUTIONS OFFERING THIS MAJOR:</b>		
Fine Arts	ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 2233	3
General Chemistry I & II	CHE 1214, CHE 1224	8
Organic Chemistry I & II	CHE 2424, CHE 2434	8
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSC 2113, PSY 1513, SOC 2113, SOC 2133, SOC 2143, SOC 2213, SOC 2243	6
Engineering Mechanics I	EGR 2413	3
English Composition I & II	ENG 1113, ENG 1123	6
Humanities	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 2113, MFL 2123, MFL 2213, MFL 2223, MFL 2313, MFL 2323, PHI 2113, PHI 2143, PHI 2713	6
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
General Physics I-A & II-A or Physics I, II, & III	PHY 2514, PHY 2524 or PHY 2313, PHY 2323, PHY 2333	8
<b>Common Courses Total</b>		<b>63</b>

CIVIL ENGINEERING  
BS, BSCE

Courses offered by: JSU, MSU, UM		
CIP: 14.0801		
<b>COMMON COURSES ACCEPTED BY ALL INSTITUTIONS OFFERING THIS MAJOR:</b>		
Fine Arts	ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 2233	3
Engineering Mechanics I & II	EGR 2413, EGR 2433	6
English Composition I & II	ENG 1113, ENG 1123	6
Humanities	HIS 1113, HIS 1123, PHI 2113	6
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
<b>Common Courses Total</b>		<b>36</b>
<b>Additional Courses accepted by JSU:</b>		
General Chemistry I	CHE 1214	4
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSC 1123, PSC 2113, PSY 1513, SOC 2113, SOC 2133, SOC 2143, SOC 2213, SOC 2243	6
Graphic Communications	GRA 1143	3
General Biology II	BIO 1144	4
General Physics I-A & II-A or Physics I, II, & III	PHY 2514, PHY 2524 or PHY 2313, PHY 2323, PHY 2333	8
Public Speaking I	SPT 1113	3
<b>JSU Acceptable Courses Total</b>		<b>28</b>
<b>JSU Total</b>		<b>64</b>
<b>Additional Courses accepted by UM:</b>		
General Chemistry I	CHE 1214	4
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSC 1123, PSC 2113, PSY 1513, SOC 2113, SOC 2133, SOC 2143, SOC 2213, SOC 2243	6
Graphic Communications	GRA 1143	3
General Physics I-A & II-A or Physics I, II, & III	PHY 2514, PHY 2524 or PHY 2313, PHY 2323, PHY 2333	8
Elective		3
<b>UM Acceptable Courses Total</b>		<b>24</b>
<b>UM Total</b>		<b>60</b>

**COMPUTER ENGINEERING**

**BS**

Degrees offered by:	JSU, MSU	
CIP:	14.0901	
<b>COMMON COURSES ACCEPTED BY ALL INSTITUTIONS OFFERING THIS MAJOR:</b>		
Fine Arts	ART 1113, DAN 1113, MUS 1113, SPT 2233	3
General Chemistry I	CHE 1214	4
Computer Programming I & II or Programming I & II with "C++"	CSC 1613, CSC 2623 or CSC 2134, CSC 2144	6
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSC 2113, PSY 1513, SOC 2113, SOC 2133, SOC 2143, SOC 2213, SOC 2243	6
English Composition I & II	ENG 1113, ENG 1123	6
Humanities	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 2113, MFL 2123, MFL 2213, MFL 2223, MFL 2313, MFL 2323, PHI 2113, PHI 2143, PHI 2713	6
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Introduction to Linear Algebra	MAT 2113	3
Differential Equations	MAT 2913	3
General Physics I-A & II-A	PHY 2514, PHY 2524	8
Public Speaking I	SPT 1113	3
<b>Common Courses Total</b>		<b>60</b>
<b>Additional Courses Accepted By JSU:</b>		
Engineering Mechanics I	EGR 2413	3
<b>JSU Additional Courses Total</b>		<b>3</b>
<b>JSU Total</b>		<b>63</b>

**ENGINEERING  
BE**

Degrees offered by: UM		
CIP: 14.0101		
<b><u>Communication</u></b>		
English Composition I & II	ENG 1113, ENG 1123	6
<b><u>Humanities</u></b>		
Fine Arts	ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 2233	3
Humanities	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 1113, MFL 1123, MFL 1213, MFL 1223, MFL 1313, MFL 2113, MFL 2123, MFL 2213, MFL 2223, MFL 2243, MFL 2253, MFL 2313, MFL 2323, MFL 2613, PHI 2113, PHI 2143, PHI 2713	6
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSC 1123, PSC 2113, PSY 1513, SOC 2113, SOC 2133, SOC 2143, SOC 2213, SOC 2243	6
<b><u>Sciences</u></b>		
General Chemistry I & II	CHE 1214, CHE 1224	8
General Physics	PHY 2514, PHY 2524 or PHY 2313, PHY 2323, PHY 2333	8
<b><u>Mathematics</u></b>		
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
<b><u>Major</u></b>		
Computer Programming	CSC 1613, CSC 2623 or CSC 2134, CSC 2144	3
Engineering Mechanics I & II	EGR 2413, EGR 2433	6
Graphic Communication I	GRA 1143	3
<b>UM Total</b>		<b>64</b>

**ELECTRICAL ENGINEERING**

**BS, BSEE**

Degrees offered by: JSU, MSU, UM		
CIP: 14.1001		
<b>COMMON COURSES ACCEPTED BY ALL INSTITUTIONS OFFERING THIS MAJOR:</b>		
General Chemistry I	CHE 1214	4
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSC 1123, PSC 2113, PSY 1513, SOC 2113, SOC 2133, SOC 2143, SOC 2213, SOC 2243	6
English Composition I & II	ENG 1113, ENG 1123	6
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
General Physics	PHY 2514, PHY 2524 or PHY 2313, PHY 2323, PHY 2333	8
<b>Common Courses Total</b>		<b>39</b>
<b>Additional Courses Accepted By JSU:</b>		
Fine Arts	ART 1113, DAN 1113, MUS 1113, SPT 2233	3
General Chemistry II	CHE 1224	4
Computer Programming I & II or Programming I & II with "C++"	CSC 1613, CSC 2623 or CSC 2134, CSC 2144	6
Humanities	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 2113, MFL 2123, MFL 2213, MFL 2223, MFL 2323, PHI 2113, PHI 2143, PHI 2713	6
Introduction to Linear Algebra	MAT 2113	3
Public Speaking I	SPT 1113	3
<b>JSU Additional Courses Total</b>		<b>25</b>
<b>MSU Total</b>		<b>64</b>
<b>Additional Courses Accepted By MSU:</b>		
Fine Arts	ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 2233	3
Computer Programming	CSC 1613, CSC 2623, CSC 2134, CSC 2144	3
Engineering Mechanics I	EGR 2413	3
Humanities	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 1113, MFL 1123, MFL 1213, MFL 1223, MFL 1313, MFL 2113, MFL 2123, MFL 2213, MFL 2223, MFL 2323, PHI 2113, PHI 2143, PHI 2713	6
Introduction to Linear Algebra	MAT 2113	3
Public Speaking I	SPT 1113	3
<b>MSU Additional Courses Total</b>		<b>21</b>
<b>MSU Total</b>		<b>60</b>

<b>Additional Courses Accepted By UM:</b>		
Fine Arts	ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 2233	3
Computer Programming	CSC 1613, CSC 2623, CSC 2134, CSC 2144	3
Engineering Mechanics I	EGR 2413	3
Humanities	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 1113, MFL 1123, MFL 1213, MFL 1223, MFL 1313, MFL 2113, MFL 2123, MFL 2213, MFL 2223, MFL 2323, PHI 2113, PHI 2143, PHI 2713	6
<b>UM Additional Courses Total</b>		<b>15</b>
<b>UM Total</b>		<b>54</b>

**GEOLOGICAL ENGINEERING  
BSGE**

Degrees offered by: UM		
CIP: 14.3901		
<b>Communication</b>		
English Composition I & II	ENG 1113, ENG 1123	6
<b>Humanities</b>		
Fine Arts	ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 2233	3
Humanities	HIS 1113, HIS 1123, HIS 1163, HIS 1173, HIS 2213, HIS 2223, MFL 1113, MFL 1123, MFL 1213, MFL 1223, MFL 1313, MFL 2113, MFL 2123, MFL 2213, MFL 2223, MFL 2243, MFL 2253, MFL 2313, MFL 2323, MFL 2613	6
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSC 1123, PSC 2113, PSY 1513, PSY 1523, PSY 2553, SOC 2113, SOC 2123, SOC 2133, SOC 2143, SOC 2153, SOC 2163, SOC 2213, SOC 2243	6
<b>Sciences</b>		
General Chemistry I & II	CHE 1214, CHE 1224	8
General Physics (Calculus-Based)	PHY 2514, PHY 2524 or PHY 2313, PHY 2323, PHY 2333	8
<b>Mathematics</b>		
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
<b>Major</b>		
Computer Programming	CSC 1313, CSC 2133	3
Engineering Mechanics I	EGR 2413	3
Graphics	GRA 1113, GRA 1143	3
Mechanics of Materials	EGR 2433	3
<b>UM Total</b>		<b>64</b>

INDUSTRIAL ENGINEERING  
BS

Degrees offered by: MSU		
ctP: 143501		
<b>Communication</b>		
English Composition I&II	ENG 1113, ENG 1123	6
Public Speaking I	SPT 1113	3
<b>Humanities</b>		
Fine Arts	ART 1113, DAN 1113, MUS 1113, SPT 2233	3
Humanities	ENG 2223, ENG 2233, E G 2323, ENG 2333, ENG 2423, ENG 2433, HIS 1113, HIS 1123, HIS 1163, HIS 1173, HIS 2213, HIS 2223, MFL 1113, MFL 1123, MFL 1213, MFL 1223, MFL 2213, MFL 2223, PHI 2113, PHI 2613, PHI 2623, PHI 2713	6
Social and Behavioral Sciences	ECO 2123, PSY 1513	6
<b>Sciences</b>		
General Chemistry I& II	CHE 1214, CHE 1224	8
General Physics IA & II-A or Physics I&II Physics III	PHY 2514, PHY 2524 PHY 2313, PHY 2323 PHY 2333	6-8
<b>Mathematics</b>		
Calculus I, II, & III	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
Introduction to Linear Algebra	MAT 2113	3
<b>Major</b>		
Engineering Mechanics I-Statics	EGR 2413	3
Graphic Communications	GRA 1143	3
<b>MSU Total</b>		<b>62-64</b>

Notes:

•Either Physics III (PHY 2333) or Differential Equations (MAT 2913) may be taken for a Math/Science Elective .

**MECHANICAL ENGINEERING  
BS, BSME**

Degrees offered by:	MSU, UM	
CIP:	14.1901	
<b>COMMON COURSES ACCEPTED BY ALL INSTITUTIONS OFFERING THIS MAJOR:</b>		
Fine Arts	ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 2233	3
General Chemistry I	CHE 1214, CHE 1224	8
Computer Programming I*	CSC 1613 or CSC 2134	3
Social and Behavioral Sciences	ECO 2113, ECO 2123, PSC 1113, PSC 2113, PSY 1513, SOC 2113, SOC 2133, SOC 2143, SOC 2213, SOC 2243	6
Engineering Mechanics I & II	EGR 2413, EGR 2433	6
English Composition I & II	ENG 1113, ENG 1123	6
Humanities	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 2113, MFL 2123, MFL 2213, MFL 2223, MFL 2313, MFL 2323, PHI 2113, PHI 2143, PHI 2713	6
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
General Physics I-A & II-A or Physics I, II, & III	PHY 2514, PHY 2524 or PHY 2313, PHY 2323, PHY 2333	8
<b>Common Courses Total</b>		<b>61</b>
<b>Additional Courses Accepted By MSU:</b>		
Introduction to Linear Algebra	MAT 2113	3
<b>MSU Additional Courses Total</b>		<b>3</b>
<b>MSU Total</b>		<b>64</b>
<b>Additional Courses Accepted By UM:</b>		
Graphic Communications	GRA 1143	3
<b>UM Additional Courses Total</b>		<b>3</b>
<b>UM Total</b>		<b>64</b>

Notes:

\*Structured Programming course required. Language is not specified. Object-oriented programming course is NOT accepted.

POLYMER SCIENCE AND ENGINEERING

BS

Degrees offered by: USM		
CIP: 14.3201		
<b><u>Communication</u></b>		
English Composition I & II	ENG 1113, ENG 1123	6
<b><u>Humanities</u></b>		
Fine Arts	ART 1113, DAN 1113, MUS 1113, SPT 2233	3
History, Philosophy, & Religion	HIS 1113, HIS 1123, HIS 1163, HIS 1173, PHI 2143, PHI 2213, PHI 2613 (at least one HIS required)	6
Literature	ENG 2213, ENG 2223, ENG 2233, ENG 2323, ENG 2333, ENG 2413, ENG 2423, ENG 2433	3
Social and Behavioral Sciences	GEO 1113, HPR 1213, PSC 1113, PSY 1513, SOC 2113, SOC 2213	6
<b><u>Sciences</u></b>		
General Chemistry I & II	CHE 1214, CHE 1224	8
General Physics I-A & II-A	PHY 2514, PHY 2524	8
Organic Chemistry I & II	CHE 2424, CHE 2434	8
<b><u>Mathematics</u></b>		
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Differential Equations	MAT 2913	3
<b><u>Major</u></b>		
Engineering Mechanics I: Statics	EGR 2413	3
<b>USM Total</b>		<b>66</b>

## SOFTWARE ENGINEERING

BS

Degrees offered by: MSU		
CIP: 14.9999		
<b>Communication</b>		
English Composition I & II	E G 1113, E G 1123	6
Public Speaking I	SP 1113	3
<b>Humanities</b>		
Fine Arts	ART 1113, DAN 1113, MUS 1113, SPT 2233	3
Humanities	E G 2223, ENG 2.233, E G 2323, ENG 2333, E G 2423, ENG 2433, HIS 1113, HIS 1123, HIS 1163, HIS 1173, HIS 2213, HIS 2223, MFL 1113, MFL 1123, MFL 1213, MFL 1223, MFL 2213, MFL 2223, PHI 2113, PHI 2713	6
Social Sciences	ECO 2113, ECO 2123, GEO 1113, GEO 1123, PSC 1113, PSY 1513, SOC 2113	6
<b>Sciences</b>		
General Biology or Zoology I	BIO 1134, BIO 2414	4
General Chemistry I	CHE 1214	4
General Physics I & II (Calculus-Based) or Physics I & II	PHY 2514, PHY 2524 PHY 2313, PHY 2323	6
<b>Mathematics</b>		
Calculus III & IV Differential Equations	MAT 1613, MAT 1623, MAT 2613, MAT 2623 MA 2913	12 3
<b>Major</b>		
Computer Programming I & II or Programming I & II with "C++"	CSC 1613, CSC 2623 or CSC 2134, CSC 2144	6-8
<b>MSU Total</b>		<b>59-61</b>

**TELECOMMUNICATION ENGINEERING**

**BS**

Degrees offered by: JSU		
CIP:		
<b><u>Communication</u></b>		
English Composition I & II	ENG 1113, ENG 1123	6
Public Speaking I	SPT 1113	3
<b><u>Humanities</u></b>		
Fine Arts	ART 1113, ART 2713, ART 2723, DAN 1113, MUS 1113, SPT 2233	3
History	HIS 1163, HIS 1173	6
Introduction to Philosophy I	PHI 2113	3
Literature	ENG 2423, ENG 2433	3
<b><u>Sciences</u></b>		
General Chemistry I	CHE 1214	4
General Physics I & II (Calculus-Based)	PHY 2514, PHY 2524 or PHY 2513, PHY 2523	8
<b><u>Mathematics</u></b>		
Calculus I, II, III, & IV	MAT 1613, MAT 1623, MAT 2613, MAT 2623	12
Introduction to Linear Algebra	MAT 2113	3
Differential Equations	MAT 2913	3
<b><u>Major</u></b>		
Computer Programming I & II or Programming I & II with "C++"	CSC 1613, CSC 2623 or CSC 2134, CSC 2144	6
<b>JSU Total</b>		<b>60</b>

**FORESTRY  
(FORESTRY MANAGEMENT)**

**BS**

Degrees offered by: MSU		
CIP: 03.0501		
<b><u>Communication</u></b>		
English Composition I & II	ENG 1113, ENG 1123	6
Public Speaking I	SPT 1113	3
<b><u>Humanities</u></b>		
Economics	AGR 2713, ECO 2113, ECO 2123	3
Fine Arts	ART 1113, DAN 1113, MUS 1113, SPT 2233	3
Humanities	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 1113, MFL 1123, MFL 1213, MFL 1223, MFL 2213, MFL 2223, PHI 2113, PHI 2713	6
<b><u>Sciences</u></b>		
Botany I	BIO 1314	4
Chemistry	CHE 1213, CHE 1214	3-4
Dendrology	BIO 2313	4
Zoology	BIO 2414	4
<b><u>Mathematics</u></b>		
College Algebra	MAT 1313 or higher, except for MAT 1723, MAT 1733, and MAT 1743	3
Statistics	MAT 2323	3
<b><u>Major</u></b>		
Basic Soils	AGR 2314	4
<b><u>Forestry Management Concentration</u></b>		
General Physics I	PHY 2414	4
Business/Science Electives	ACC, BIO, BAD, CHE, ECO	9
Elective		3
<b>MSU Total</b>		<b>62-63</b>

**For more information, please contact:**

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