

# BS in Civil Engineering

2016-2017 Bulletin

Revised 29 January 2016



For more information: [ce.mnsu.edu/CurrentStudents/](http://ce.mnsu.edu/CurrentStudents/)

Students are required to meet with their academic advisor each semester about course planning.

## Complete the following Program Admission Courses

		Credits
ENG 101	Composition	4
MATH 121	Calculus I	4
MATH 122	Calculus II	4
MATH 223	Calculus III	4
MATH 321	Differential Equations	4
CHEM 201	General Chemistry I	5
PHYS 121	General Physics I	4
CIVE 201	Introduction to Problem Solving and Civil Engineering Design	2
ME 212	Statics	3
ME 214	Dynamics	3
ME 223	Mechanics of Materials	3
ME 291	Engineering Analysis	3

## Complete the following support courses.

ENG 271W	Technical Communication		4
Either			
ME 299	Thermal Analysis	2	} 2
Or			
ME 241	Thermodynamics	3	
Either			
PHYS 222	General Physics II	3	} 4
PHYS 232	General Physics II Lab	1	
Or			
PHYS 223	General Physics III	3	} 4
PHYS 233	General Physics III Lab	1	

## Complete the following Major Courses

CIVE 101	Introduction to Civil Engineering	2
CIVE 145	CAD for Civil Engineering	2
CIVE 235	Properties of Civil Engineering Materials	3
CIVE 271	Civil Engineering Measurements	2
CIVE 321	Fluid Mechanics	3
CIVE 340	Structural Analysis	3
CIVE 350	Hydraulics and Hydrology	4
CIVE 360	Geotechnical Engineering	4
CIVE 370W	Transportation Engineering	4
CIVE 380	Environmental Engineering	3
CIVE 401	Civil Engineering Design I	2
CIVE 402	Civil Engineering Design II	3

CIVE 435	Civil Engineering Experimentation I		2
CIVE 436	Civil Engineering Experimentation II		2
GEOL 121	Physical Geology		4
Either			
CIVE 446	Reinforced Concrete Design	3	} 3
Or			
CIVE 448	Steel Design	3	
CIVE 4XX	Civil Engineering Elective		3
CIVE 4XX	Civil Engineering Elective		3
CIVE 4XX	Civil Engineering Elective		3
	Technical Elective		2
	Technical Elective or Civil Elective		3
Complete the following General Education Courses			
ECON 201 or 202	Micro or Macro Economics		3
Social Sciences (2 courses)	<a href="#">Choose from list of approved courses</a>		6
Humanities (2 courses)	<a href="#">Choose from list of approved courses</a>		6

Planning Worksheet

2016-2017

Name: \_\_\_\_\_

**Instructions:**

1. Label the years correctly, and then **drag and drop** each course *and* associated credit hours into the appropriate location.
2. If courses are completed, drag and drop course and credit hours into the completed column.
3. Please **consult the flowsheet** to make sure you take courses and prerequisites in the correct order.
4. Ensure each course is offered in the semester planned. Many CIVE courses are only taught either in the Fall or the Spring.
6. **WARNING:** If you change your plan, visit with your advisor. Incorrect planning may result in delaying your graduation.

Courses			Semester Offered	Fall 2016	Spring 2017	Summer 2017	Completed Courses
<b>MATH AND SCIENCE COURSES</b>							
MATH 121 - Calc 1	4	F/Sp/Su					
MATH 122 - Calc 2	4	F/Sp/Su					
MATH 223 - Calc 3	4	F/Sp					
MATH 321 - Diff Eq	4	F/Sp/Su					
CHEM 201 - Chem 1	5	F/Sp					
PHYS 121 - Physics 1	4	F/Sp					
PHYS 223 - Physics 3	3	Sp					
PHYS 233 - Physics 3 Lab	1	Sp					
<i>Alternative to PHYS 223+233</i>							
PHYS 222 - Physics 2	3	F/Sp					
PHYS 232 - Physics 2 Lab	1	F/Sp					
GEOL 121 - Geology	4	F/Sp					
<b>ENGINEERING COURSES</b>							
CIVE 101 - Intro to Civil	2	F					
CIVE 145 - CAD	2	F/Sp					
CIVE 201 - Intro to Design	2	F/Sp					
ME 212 - Statics	3	F/Sp/Su*					
ME 214 - Dynamics	3	F/Sp/Su*					
ME 223 - Mechanics	3	F/Sp/Su*					
CIVE 235 - Materials Sci.	3	Sp					
CIVE 271 - Surveying	2	F					
ME 291 - Eng. Analysis	3	F/Sp/Su*					
ME 299 - Thermal Analysis	2	Sp					
CIVE 321 - Fluids	3	F					
CIVE 340 - Structures	3	F					
CIVE 350 - Hydro.	4	Sp					
CIVE 360 - Geotech	4	Sp					
CIVE 370W - Transportation	4	F					
CIVE 380 - Environmental	3	F					
CIVE 401W - Senior Design 1	2	F					
CIVE 402W - Senior Design 2	3	Sp					
CIVE 435 - Experimentation 1	2	F					
CIVE 436 - Experimentation 2	2	Sp					
CIVE 446 - Reinf. Conc. or CIVE 448 - Steel	3	Alt Sp					
CIVE 4XX - Civil Elective	3	F/Sp					
CIVE 4XX - Civil Elective	3	F/Sp					
CIVE 4XX - Civil Elective	3	F/Sp					
<i>Alternative to ME 299</i>							
ME 241 - Thermodynamics	3	F					
<b>SUPPORT COURSES</b>							
ENG 271W - Tech. Comm.	4	F/Sp					
Technical Elective 1	3	F/Sp					
Technical Elective 2	2	F/Sp					
<b>GENERAL EDUCATION COURSES</b>							
ENG 101 - Composition	4	F/Sp/Su					
ECON 201 or 202 - Economics	3	F/Sp					
Humanties Elective 1	3	F/Sp/Su*					
Humanties Elective 2	3	F/Sp/Su*					
Social Science Elective 1	3	F/Sp/Su*					
Social Science Elective 1	3	F/Sp/Su*					

Planning Worksheet

2016-2017 Name:

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<b>MATH AND SCIENCE COURSES</b>						
		F/Sp/Su	MATH 121 - Calc 4	MATH 122 - Calc 4		
		F/Sp/Su	CHEM 201 - Chem 5	PHYS 121 - Physi 4		
		F/Sp	ENG 101 - Compd 4	CIVE 145 - CAD 2		
		F/Sp/Su	CIVE 101 - Intro to 2	CIVE 201 - Intro to 2		
		F/Sp		Humanities Electiv 3		
		F/Sp				
		Sp				
		Sp				
			Credits 15	Credits 15	Credits 0	
<i>Alternative to PHYS 223+233</i>						
PHYS 222 - Physics 2	3	F/Sp				
PHYS 232 - Physics 2 Lab	1	F/Sp				
		F/Sp				
<b>ENGINEERING COURSES</b>						
		F				
		F/Sp				
		F/Sp				
		F/Sp/Su*				
		F/Sp/Su*				
		F/Sp/Su*				
		Sp				
		F				
		F/Sp/Su*				
		Sp				
		F				
		F				
		F				
		Sp				
		F				
		Sp				
		Alt Sp				
or CIVE 448 - Steel		Alt Sp				
		F/Sp				
		F/Sp				
		F/Sp				
<i>Alternative to ME 299</i>						
ME 241 - Thermodynamics	3	F				
<b>SUPPORT COURSES</b>						
		F/Sp				
		F/Sp				
		F/Sp				
<b>GENERAL EDUCATION COURSES</b>						
		F/Sp/Su				
		F/Sp				
		F/Sp/Su*				
		F/Sp/Su*				
		F/Sp/Su*				
		F/Sp/Su*				
		F/Sp/Su*				
			Credits 0	Credits 0	Credits 0	

# Planning Worksheet

2016-2017 Name: \_\_\_\_\_

## Instructions:

1. Label the years correctly, and then **drag and drop** each course *and* associated credit hours into the appropriate location.
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Courses	Credits	Semester Offered	2016-2017			Completed Courses
			Fall 2016	Spring 2017	Summer 2017	
<b>MATH AND SCIENCE COURSES</b>						
		F/Sp/Su	MATH 115 - Preca 4	MATH 121 - Calc 4		
		F/Sp/Su	CHEM 104 3	CHEM 201 - Chem 5		
		F/Sp	ENG 101 - Compo 4	CIVE 145 - CAD 2		
		F/Sp/Su	PHYS 101 3	Humanities Elective 3		
		F/Sp				
		F/Sp				
		Sp				
		Sp				
			Credits 14	Credits 14	Credits 0	
<i>Alternative to PHYS 223+233</i>						
PHYS 222 - Physics 2	3	F/Sp				
PHYS 232 - Physics 2 Lab	1	F/Sp				
		F/Sp				
<b>ENGINEERING COURSES</b>						
		F	MATH 122 - Calc 4	MATH 321 - Diff E 4		
		F/Sp	CIVE 101 - Intro to 2	GEOL 121 - Geold 4		
		F/Sp	PHYS 121 - Physic 4	CIVE 201 - Intro to 2		
		F/Sp/Su*	CIVE 271 - Survey 2	ENG 271W - Tech 4		
		F/Sp/Su*				
		F/Sp/Su*				
		F/Sp/Su*				
		Sp				
		F				
		F/Sp/Su*				
		Sp				
		F				
		F				
		F				
		Sp				
		F				
		F				
		Sp				
		Alt Sp				
or CIVE 448 - Steel		Alt Sp				
		F/Sp				
		F/Sp				
		F/Sp				
<i>Alternative to ME 299</i>						
ME 241 - Thermodynamics	3	F				
<b>SUPPORT COURSES</b>						
		F/Sp				
		F/Sp				
		F/Sp				
<b>GENERAL EDUCATION COURSES</b>						
		F/Sp/Su	CIVE 401W - Seni 2	CIVE 402W - Seni 3		
		F/Sp	CIVE 435 - Exper 2	CIVE 436 - Exper 2		
		F/Sp/Su*	CIVE 4XX - Civil E 3	CIVE 4XX - Civil E 3		
		F/Sp/Su*	PHYS 223 - Physic 3	Social Science Ele 3		
		F/Sp/Su*	PHYS 233 - Physic 1			
		F/Sp/Su*				
		F/Sp/Su*				
			Credits 11	Credits 11	Credits 0	