



## Minors in Engineering

- Students must notify the Department of Civil Engineering of their intent to pursue a minor. This can be done by [emailing the Civil Engineering Undergraduate Student Advisor](#).
- In meeting specific requirements for any minors available to Engineering students, no more than 50% of the credit hours required for a minor may be common with those forming part of a student's regular Engineering program.

### Arts Minor

The Arts minor consists of 18 credit hours of Arts courses, including a minimum of 6 credit hours in the Humanities and six credit hours in the Social Sciences; students must meet all pre-requisite requirements. Depending on the approval of the Engineering department, courses used for the minor may also be used to fulfill course requirements in Engineering.

### Computer Science Minor

The minimum requirement is 18 credit hours of computer science courses subject to the following constraints: (1) Courses COMP 1012, COMP 1020, and COMP 2140 are compulsory; (2) 9 additional credit hours of COMP courses at the 2000 or 3000 level; and (3) registration in computer science courses will be controlled by normal pre-requisites and class size restrictions.

### Geological Sciences Minor

The Minor in Geological Sciences includes the following set of courses: (1) GEOL 1340; (2) One of the following three courses: GEOL 1400, GEOL 1410 or GEOL 1420; (3) GEOL 2540; (4) Nine (9) credit hours of 2000-level or above courses in Geological Sciences.

### Management Minor

The Management minor consists of any 18 credit hours of Management courses; students must meet all prerequisite requirements. Depending on the approval of the Engineering department, courses used for the minor may also be used to fulfill course requirements in Engineering. Admission requirements for the minor are based on all courses transferred to Engineering or completed while in Engineering; the requirements are a minimum of 30 credit hours with a minimum Degree Grade Point Average (DGPA) of 3.00. Up to 10 spaces are available each year for engineering students on a competitive basis. Applications can be made in the Engineering Dean's office up to May 30th. Civil Engineering students only may use CIVL 2780 for credit towards the Management Minor in Engineering.

### Mathematics Minor

The minimum requirements are 24 credit hours of mathematics courses subject to the following constraints: (1) the students must notify their home department that they are pursuing the minor; (2) up to 12 credit hours of mathematics courses in a student's engineering program may be counted toward the minor; (3) the student must complete at least 6 credit hours of courses from the mathematics department at the 3000 level or higher that are not included as part of the curriculum in the student's engineering program; and (4) approval of the Department of Mathematics is required for courses outside of the regular engineering program.

### Music Minor

The Minor in Music requires 18 credit hours of MUSC courses and students are subject to the regulations set by the Marcel A. Desautels Faculty of Music. [Please see Section 4.7 Music Minor for students in the Faculty of Engineering, Faculty of Arts and Faculty of Science under the Marcel A. Desautels Faculty of Music section.](#)

### Recreational Studies Minor

The Minor in Recreational Studies requires 18 credit hours of approved coursework. Students are subject to the regulations set by the Faculty of Kinesiology and Recreational Management. [Please see Section 4.6 Minor in Recreational Studies under Faculty of Kinesiology and Recreational Management.](#)

## Course list for Minors in Civil Engineering

### Arts Minor 18 credit hours (6 Humanities + 6 Social Sciences + 6 any Arts courses)

<i>Humanities:</i>				<i>Social Sciences:</i>			
Written English requirement (if HUM crs)		3		Arts			3
Arts			3	Arts			3
				<i>Any Arts Course:</i>			
				Comp El. #1	Any Arts course		3
				Comp El. #2	Any Arts course		3

[Click here for list of HUMANITIES and SOCIAL SCIENCES course suggestions.](#)

### Management Minor 19 credit hours

CIVL 2780	Civil Eng. Systems		4	Mgmt			3
Comp El. #1	Mgmt Course		3	Mgmt			3
Comp El. #2	Mgmt Course		3	Mgmt			3

### Geology Minor 18 credit hours

GEOL 1340	Dynamic Earth		3	2000 or +			3
GEOL 2540	Intro Mineralogy		3	2000 or +			3
One of: GEOL 1400, 1410 or 1420			3	2000 or +			3

### Mathematics Minor 24 credit hours (12 credit hrs from Civil program can be used)

MATH 1500 or 1510			3	Math			3
MATH 1700 or 1710			3	Math			3
MATH 1210			3	3000 or +			3
MATH 2130			4	3000 or +			3
MATH 2132			4				

### Computer Science 18 credit hours

COMP 1012	Intro to Comp. Sci		3	2000 or +			3
COMP 1020	Intro to Comp. Sci. 2		3	2000 or +			3
COMP 2140	Data Str. & Algorithms		3	2000 or +			3

### Music Minor 18 credit hours (no Engineering courses apply)

MUSC 1280	Mus Style and Struct. 1		3	MUSC Courses from List A*			12
MUSC 1290	Mus Syle and Struct. 2		3	<a href="#">* Refer to Faculty of Music Section 4.7 in UofM Calendar</a>			

### Recreational Studies Minor 18 credit hours (no Engineering courses apply)

KPER 1400	Concepts of Rec & Leisure		3	Two REC Courses from Elective List (2100/2130/2150/2170)			6
REC 2400	Mngt & Marketing of Leisure Ser		3	Two Courses from Advanced Electives List**			6
				<a href="#">** Refer to Faculty of Kin. &amp; Rec Mgmt Section 4.6 in UofM Calenda</a>			

[Students must inform the Civil Engineering Department if planning to pursue a Minor.](#)