

DEPARTMENT OF CIVIL, STRUCTURAL, AND ENVIRONMENTAL ENGINEERING  
and  
SCHOOL OF MANAGEMENT  
University at Buffalo

**JOINT FIVE-YEAR PROGRAM  
BS (Civil Engineering)/MBA**

The Department of Civil, Structural and Environmental Engineering and the School of Management offer a five-year program leading to a joint Bachelors degree in civil engineering and Masters degree in business administration. This program reduces by one year the usual pattern of a four-year undergraduate degree and a two-year MBA program. At completion, you will be awarded a BS diploma and an MBA diploma, with a transcript notation that these degrees were awarded as part of a combined degree program.

Students wishing to pursue the dual program should take the GMAT and apply to the MBA program early during their junior year. Admissions will be limited to students who can satisfy the entrance requirements for the MBA program.

Each candidate must meet all the degree requirements of each program, except for the reduction in the total credit hours required for the usual pattern of a four-year BS (civil engineering) degree and a two-year MBA degree.

Applications for the joint five-year program can be found on the web at [www.mgt.buffalo.edu](http://www.mgt.buffalo.edu). For additional information or to set up an appointment, please contact:

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Assistant Director of Admissions  
School of Management  
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(716) 645-7853  
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or

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# BS/MBA CIVIL ENGINEERING

Course Guide for students starting MBA classes Fall 2013 or later  
(and started CIE JR YR on or after Fall 2012)

## First Year

Fall Semester	Credit Hrs	Spring Semester	Credit Hrs.
MTH 141 Calculus I	4	MTH 142 Calculus II	4
CHE 107 Chemistry I ^	4	PHY 107 Physics I	4
EAS 140 Engineering Principles	3	CHE 108 Chemistry II ^	4
ENG 101 or 102 Writing **	3	MAE 177 Intro to Eng Drawing/CAD	2
General Education %	3	EAS 202 Engineering Impact on Society ^^	1
Total Credits	17	ENG 201 Adv. Writing or Humanities **	3
		Total Credits	18

Library Skills \*

## Second Year

MTH 241 Calculus III	4	MTH 306 Differ. Equations	4
PHY 108 Physics II	4	EAS 208 Dynamics	3
PHY 158 Physics II Lab	1	EAS 209 Mech of Solids	3
EAS 207 Statics	3	General Education %	3
EAS 230 Engineering Computations or CSE 113 Intro to CS I (for non-majors)	3-4	Engineering Elective: choose from EE 200, MAE 204, EE 202, IE 320	3-4
General Education %	3	Total Credits	16-17
Total Credits	18-19		

## Third Year

CIE 323 Structures Engr.	3	CIE 324 Structures II	3
CIE 354 Fluid Mech.	3	CIE 334 Soil Mechanics	3
CIE 327 CIE Materials	3	CIE 340 Environmental Eng	3
CIE 303 Geodesy, GPS, & GIS	3	CIE 343 Hydraulic Engr.	3
CIE 308 Engineering Stats	3	CIE 362 Civil Engineering Lab II	2
CIE 361 Civil Engineering Lab I	2	General Education %	3
Total Credits	17	Total Credits	17

MBA applications are due by May 1 of third year

## Summer

1 General Education Class %

## Fourth Year

First Semester MBA Core @	15	Second Semester MBA Core @	10
CIE 435 Foundation Engr.	3	MBA Elective @	3
Total Credits	18	CIE Technical Elective ***	3
		Total Credits	16

## Fifth Year

MBA Electives - may include internship @	6	Fourth Semester MBA Core @	2
CIE 415 Professional Practice Issues	3	MBA Electives @	12
CIE 439 Transportation Systems	3	CIE 416 Civil Engineering Capstone Design	3
CIE Technical Elective (with design) ***	3	Total Credits	17
Total Credits	15		

- Pr. Indicates a prerequisite for the course. Not all prerequisites are noted.
- \* Library Skills Workbook is required for all students entering UB in Fall of 1997 and thereafter.  
See the Library Skills website at <http://ublib.buffalo.edu/libraries/units/ugl> or go to room 107 in UGL.
  - \*\* ENG 101 and ENG 201 or ENG 102 and Humanities (Writing Skills Requirement) as determined by placement: SAT/ACT, AP, TOEFL, or transfer credit. SAT verbal 400-570 = ENG 101 and then 201, 580-720 = ENG 102 and Humanities (%), 730-800 = Exempt from Writing Skills but need Humanities (%).
  - \*\*\* One technical elective must be selected from CIE 428,429,430, 438 or 442. The remaining TE must be chosen from an approved list available in the undergraduate catalog. As part of this combined degree program MBA requirements satisfy the two additional technical electives normally required for the BS in civil engineering and MGQ 608 Statistical Analysis for Managers and MGQ 609 Analytics for Managers satisfy the applied math elective.
  - ^ CHE 101-102 OR CHE 105-106 may be substituted for CHE 107-108.
  - ^^ EAS 202 Engineering Impact on Society is required for students entering UB Engineering as freshman beginning with the fall 2011 catalog year. CIE 101 is no longer required.
  - % World Civilizations I and II, American Pluralism or approved cognate, Social & Behavioral Science, Arts, and Humanities (if not required to complete ENG 101-201 sequence).
  - @ Contact the School of Management for advisement on core MBA requirements and electives.

# BS/MBA CIVIL ENGINEERING

Course Guide for students starting MBA classes Fall 2012 or later  
(and started CIE JR YR prior to Fall 2012)

## First Year

Fall Semester	Credit Hrs	Spring Semester	Credit Hrs.
MTH 141 Calculus I	4	MTH 142 Calculus II	4
CHE 107 Chemistry I ^	4	PHY 107 Physics I	4
EAS 140 Engineering Principles	3	CHE 108 Chemistry II ^	4
ENG 101 or 102 Writing **	3	MAE 177 Intro to Eng Drawing/CAD	2
General Education %	3	EAS 202 Engineering Impact on Society ^^	1
Total Credits	17	ENG 201 Adv. Writing or Humanities **	3
		Total Credits	18

Library Skills \*

## Second Year

MTH 241 Calculus III	4	MTH 306 Differ. Equations	4
PHY 108 Physics II	4	EAS 208 Dynamics	3
PHY 158 Physics II Lab	1	EAS 209 Mech of Solids	3
EAS 207 Statics	3	General Education %	3
EAS 230 Engineering Computations or CSE 113 Intro to CS I (for non-majors)	3-4	Engineering Elective: choose from EE 200, MAE 204, EE 202, IE 320	3-4
General Education %	3	Total Credits	16-17
Total Credits	18-19		

## Third Year

CIE 323 Structures Engr.	3	CIE 324 Structures II	3
CIE 354 Fluid Mech.	3	CIE 334 Soil Mechanics	3
CIE 327 CIE Materials	3	CIE 340 Environmental Eng	3
CIE 303 Geodesy, GPS, & GIS	3	CIE 343 Hydraulic Engr.	3
CIE 308 Engineering Stats	3	CIE 362 Civil Engineering Lab II	2
CIE 361 Civil Engineering Lab I	2	General Education %	3
Total Credits	17	Total Credits	17

MBA applications are due by May 1 of third year

## Summer

1 General Education Class %

## Fourth Year

First Semester MBA Core	15	Second Semester MBA Core	10
CIE 435 Foundation Engr.	3	MBA Elective	3
Total Credits	18	CIE Technical Elective ***	3
		Total Credits	16

## Fifth Year

MBA Electives - may include internship	6	Fourth Semester MBA Core	2
CIE 415 Professional Practice Issues	3	MBA Electives	12
CIE 439 Transportation Systems	3	CIE Technical Elective ***	3
CIE Technical Elective (with design) ***	3	Total Credits	17
Total Credits	15		

Pr. Indicates a prerequisite for the course. Not all prerequisites are noted.

\* Library Skills Workbook is required for all students entering UB in Fall of 1997 and thereafter.

See the Library Skills website at <http://ublib.buffalo.edu/libraries/units/ugl> or go to room 107 in UGL.

\*\* ENG 101 and ENG 201 or ENG 102 and Humanities (Writing Skills Requirement) as determined by placement: SAT/ACT, AP, TOEFL, or transfer credit. SAT verbal 400-570 = ENG 101 and then 201, 580-720 = ENG 102 and Humanities (%), 730-800 = Exempt from Writing Skills but need Humanities (%).

\*\*\* One technical elective must be selected from CIE 428,429,430, 438, 442, and 449. The two remaining TE's must be chosen from an approved list available in the undergraduate catalog. As part of this combined degree program, MBA requirements satisfy the two additional technical electives normally required for the BS in civil engineering and MGQ 608 Statistical Analysis for Managers and MGQ 609 Analytics for Managers satisfy the applied math elective.

^ CHE 101-102 OR CHE 105-106 may be substituted for CHE 107-108.

^^ EAS 202 Engineering Impact on Society is required for students entering UB Engineering as freshman beginning with the fall 2011 catalog year. CIE 101 is no longer required.

% World Civilizations I and II, American Pluralism or approved cognate, Social & Behavioral Science, Arts, and Humanities (if not required to complete ENG 101-201 sequence).

@ Contact the School of Management for advisement on core MBA requirements and electives.

# BS/MBA CIVIL ENGINEERING

Course Guide for students starting MBA classes prior to Fall 2012

## First Year

Fall Semester	Credit Hrs	Spring Semester	Credit Hrs.
MTH 141 Calculus I	4	MTH 142 Calculus II	4
CHE 107 Chemistry I ^	4	PHY 107 Physics I	4
EAS 140 Engineering Principles	3	CHE 108 Chemistry II ^	4
ENG 101 or 102 Writing **	3	MAE 177 Intro to Eng Drawing/CAD	2
General Education %	3	EAS 202 Engineering Impact on Society ^^	1
Total Credits	17	ENG 201 Adv. Writing or Humanities **	3
		Total Credits	18

Library Skills \*

## Second Year

MTH 241 Calculus III	4	MTH 306 Differ. Equations	4
PHY 108 Physics II	4	EAS 208 Dynamics	3
PHY 158 Physics II Lab	1	EAS 209 Mech of Solids	3
EAS 207 Statics	3	General Education %	3
EAS 230 Engineering Computations or CSE 113 Intro to CS I (for non-majors)	3-4	Engineering Elective: choose from EE 200, MAE 204, EE 202, IE 320	3-4
General Education %	3	Total Credits	16-17
Total Credits	18-19		

## Third Year

CIE 323 Structures Engr.	3	CIE 324 Structures II	3
CIE 354 Fluid Mech.	3	CIE 334 Soil Mechanics	3
CIE 327 CIE Materials	3	CIE 340 Environmental Eng	3
CIE 303 Geodesy, GPS, & GIS	3	CIE 343 Hydraulic Engr.	3
CIE 308 Engineering Stats	3	CIE 362 Civil Engineering Lab II	2
CIE 361 Civil Engineering Lab I	2	General Education %	3
Total Credits	17	Total Credits	17

MBA applications are due by May 1 of third year

## Summer

1 General Education Class %

## Fourth Year

MGA 604 Financial Analysis & Reporting	3	MGO 641 Strategic Management	3
MGB 601 Behav & Organiz Concepts	3	MGM 625 Marketing Management	3
MGE 601 Economics for Managers	3	MGO 630 Operations & Service Mgt	3
MGT 601 Ethics & Corporate Governance	1.5	MGF 631 Financial Management	1.5
MGF 631 Financial Management	1.5	MGG 635 Business Communications	1.5
CIE 439 Transportation Systems	3	CIE 415 Professional Practice	3
CIE 435 Foundation Engr.	3	CIE Technical Elective ***	3
Total Credits	18	Total Credits	18

## Fifth Year

MBA Practicum	3	MGA 609 Management Accounting	3
MBA Elective @	3	MBA Elective @	3
MBA Elective @	3	MBA Elective @	3
MBA Elective @	3	Applied Math Elective \$	3
MBA Elective @	3	CIE Technical Elective ***	3
Total Credits	15	Total Credits	15

Pr. Indicates a prerequisite for the course. Not all prerequisites are noted.

\* Library Skills Workbook is required for all students entering UB in Fall of 1997 and thereafter.

See the Library Skills website at <http://ublib.buffalo.edu/libraries/units/ugl> or go to room 107 in UGL.

\*\* ENG 101 and ENG 201 or ENG 102 and Humanities (Writing Skills Requirement) as determined by placement: SAT/ACT, AP, TOEFL, or transfer credit. SAT verbal 400-570 = ENG 101 and then 201, 580-720 = ENG 102 and Humanities (%), 730-800 = Exempt from Writing Skills but need Humanities (%).

\*\*\* One technical elective must be selected from CIE 428,429,430, 438, 442, and 449. The remaining TE must be chosen from an approved list available in the undergraduate catalog. As part of this combined degree program MGA 604, MGB 601, and MGE 601 satisfy the three additional technical electives normally required for the BS in civil engineering.

^ CHE 101-102 OR CHE 105-106 may be substituted for CHE 107-108.

^^ EAS 202 Engineering Impact on Society is required for students entering UB Engineering as freshman beginning with the fall 2011 catalog year. CIE 101 is no longer required.

% World Civilizations I and II, American Pluralism or approved cognate, Social & Behavioral Science, Arts, and Humanities (if not required to complete ENG 101-201 sequence).

\$ Applied Math Elective: Select one from: MAE 376 Applied Math for MAE, MTH417 Multivariable Calculus, MTH418 Analytical Methods or MTH309 Linear Algebra.

@ Contact the School of Management for advisement on MBA electives.