

## Program Overview

Engineering, Math and Physical Sciences division  
Room T102, (847) 543-2044  
[www.clcollinois.edu/programs/egr](http://www.clcollinois.edu/programs/egr)

## Engineering (Associate in Engineering Science) Plan 12AB

The engineering transfer curriculum at CLC is a two-year program that will prepare you for continued engineering study at a four-year college or university. The program parallels the first two years of an engineering program at most universities accredited by the Accrediting Board for Engineering and Technology (ABET).

### First Semester . . . . . 17

- MTH 145 Calculus and Analytic Geometry I . . . . . 5
- CHM121 General Chemistry I . . . . . 5
- EGR 120 Introduction to Engineering . 1
- EGR 121 Engineering Graphics#. . . . . 3
- ENG 121 English Composition I . . . . . 3

### Second Semester . . . . . 15

- MTH 146 Calculus and Analytic Geometry II . . . . . 4
- ENG 122 English Composition II or ENG 126 Advanced Composition: Scientific and Technical Communications. . . . . 3
- PHY 123 Physics for Science and Engineering I . . . . . 5
- Humanities/Fine Arts or Social Science Elective\* . . . 3

### Third Semester . . . . . 15

- PHY 124 Physics for Science and Engineering II . . . . . 5
- EGR 125 Engineering Statics# or Technical Elective . . . . . 3
- MTH 246 Calculus and Analytical Geometry III. . . . . 4
- Humanities/Fine Arts or Social Science Elective\* . . . 3

### Fourth Semester . . . . . 15-16

- MCS 140 Computer Programming I . . . 3
- MTH 227 Differential Equations . . . . 3
- EGR 225 Engineering Dynamics# or Technical Elective . . . . . 3
- EGR 260 Introduction to Circuit Analysis# or Technical Elective . . . . . 3-4
- Humanities/Fine Arts or Social Science Elective\* . . . 3

### Optional Summer Recommendations

- (based on the institution you intend to transfer to)
- CHM123 General Chemistry II . . . . . 5
  - EGR 222 Engineering Mechanics of Materials# . . . . . 3
  - PHY 221 Physics for Science and Engineering III . . . . . 4

# Select a minimum of 12 credit hours from the technical elective courses. Courses may include those recommended in the semester schedule above or substitute in a different course from the list below.

### Technical Electives for Specific Engineering Majors below

- EGR 120 Introduction to Engineering . 1
- EGR 121 Engineering Graphics . . . . . 3
- EGR 125 Engineering Statics . . . . . 3
- EGR 225 Engineering Dynamics. . . . . 3
- EGR 260 Introduction to Circuit Analysis. . . . . 4
- EGR 222 Engineering Mech of Materials. . . . . 3
- CHM123 General Chemistry II . . . . . 5
- CHM222 Organic Chemistry I . . . . . 5
- MCS 142 Computer Science II . . . . . 3
- MTH 225 Introduction to Linear Algebra. . . . . 3
- MTH 244 Discrete Mathematics . . . . . 3
- PHY 221 Physics for Science and Engineering III . . . . . 4
- EET 223 Introduction to Digital Electronics. . . . . 4

\* Select courses from three different disciplines (i.e. different prefixes). At least one course must be selected from the Social and Behavioral Sciences section and one course from either the Humanities or Fine Arts section. See page 58 of the 2015-16 catalog for specific course list. Include one course in International/Multicultural Education. There will be a + following the course number. This course can fulfill both the I/M requirement and a Social Science, Humanities, or Fine Arts requirement.

### These recommendations align with the IAI Engineering

Panel recommendations. Students are strongly recommended to choose courses in consultation with an advisor to meet 4-year Engineering school transfer requirements.

### General or Undecided:

- EGR 120, 121, 125, 225, 260

### BIO Medical:

- EGR 120, 121, CHM 123, EGR 260

### Chemical Engineering:

- EGR 120, 121, CHM 123, 222

### Civil Engineering:

- EGR 120, 121, 125, 222, 225

### Electrical/Computer Engineering:

- EET 223, EGR 120, 260, MTH 225, 244

### Industrial Engineering:

- EGR 120, 121, 125, 225, 222

### Mechanical Engineering:

- EGR 120, 121, 125, 225, 222, 260

Courses Offered in Selected Semesters Only						
Course	Fall		Spring		Summer	
	Day	Night	Day	Night	Day	Night
MTH 225			X			
MTH 227		X	X		X	
MTH 244				X		
MCS 142			X			
PHY 123	X	X	X			
PHY 124	X		X	X		
PHY 221						X
EET 223	X					
EGR 222			X			X
EGR 260			X			

Night classes begin no earlier than 4 p.m. Above schedule assumes sufficient enrollment. For more information about this course of study, students should contact the division office.

## Transfer Program Notes

Students are encouraged to meet with a counselor or advisor to identify coursework that will meet both CLC requirements and transfer requirements.

The engineering transfer curriculum is designed for students intending to transfer to a four-year college or university. The program prepares students for continued engineering study by providing coursework that “parallels” the first two years of engineering coursework offered at most universities accredited by the Accrediting Board for Engineering and Technology (ABET).

Courses identified in the outlined sequence are suggestions and vary by institution. Because minor differences in course requirements exist at different universities and colleges, students are encouraged to meet with an advisor at their intended transfer school, as well as with a CLC counselor to ensure transferability of courses.

Prospective engineering students may elect to pursue the Associate in Engineering (AES) degree, which may facilitate transfer to some engineering schools in Illinois. Most of the courses in the outlined program are core courses common to all engineering programs in Illinois, but course requirements vary depending upon transfer institution and department/discipline requirements. As noted above, students should work with the school to which they intend to transfer to ensure transferability.

## CLC’s Engineering Program

Why choose CLC’s Engineering Program?

- Ease of transfer
- Lower cost
- Smaller classes
- Quality education
- Numerous extracurricular opportunities

## Is Engineering for Me?

If you like figuring out how things work, solving problems, new technologies, science and math, then engineering could be a good field for you.

## CLC’s Engineering Club

The CLC Engineering club is active, with more than 15 students who meet for social events, professional speakers, tours, networking and more. The club was named CLC club of the year in 2008.

## Scholarships

Scholarships are available for full time Engineering, Computer Science or Electrical Engineering Technology students who are eligible for federal financial aid and qualify academically. For more information, go to [www.clcillinois.edu/nsf](http://www.clcillinois.edu/nsf).

## Engineering Pathways

CLC has a partnership with the University of Illinois, Urbana/Champaign. Known as Engineering Pathways, the program offers qualified students guaranteed admission to UIUC’s College of Engineering. For details, visit [www.clcillinois.edu/programs/egr/options/engineering-pathways](http://www.clcillinois.edu/programs/egr/options/engineering-pathways).

## Salary and Job Outlook

For the latest information, visit [www.mynextmove.org](http://www.mynextmove.org) or the Bureau of Labor Statistics online at [www.bls.gov](http://www.bls.gov). Gainful employment data is available at [www.clcillinois.edu/gainfulemployment](http://www.clcillinois.edu/gainfulemployment).

## Employers

Engineers work in technical or managerial roles for a variety of types of employers, including companies that design, manufacture or build, research, or sell engineering related products.

## Transfer Schools

All CLC courses transfer to the major engineering schools in Illinois and surrounding states. You can take up to 60 hours and transfer them to any engineering school, including:

- University of Illinois–Chicago
- University of Illinois–Urbana Champaign
- Northern Illinois University
- Southern Illinois University
- Illinois Institute of Technology
- Bradley University
- Milwaukee School of Engineering
- Marquette University

## How to Register

To become a new CLC student, follow six steps that begin with completing an online Student Admission Form and end with paying your tuition and fees. For details, visit [www.clcillinois.edu/admission](http://www.clcillinois.edu/admission).

Make an appointment with a CLC advisor, counselor or Engineering department chair Rob Twardock.

## Contact

**Rob Twardock**  
Department Chair  
Room T113  
(847) 543-2903  
[rtwardock@clcillinois.edu](mailto:rtwardock@clcillinois.edu)

**Jan Edwards**  
Engineering Professor  
Room T113  
(847) 543-2918  
[jedwards1@clcillinois.edu](mailto:jedwards1@clcillinois.edu)

## Student Experience

“Taking courses at CLC before transferring to the University of Illinois shortened my overall college time from four years to only three years. The level of personal attention I received from the instructors at CLC was not present at the university level. My experience at CLC prepared me well for upper-level classes at the University.”

— *Aras Buntinas*  
*Former CLC student, graduate of University of Illinois (B.S.)*

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