



**DEPARTMENT OF CHEMICAL
AND BIOMOLECULAR
ENGINEERING**

ADMISSIONS HANDBOOK

THE UNIVERSITY OF AKRON

DEPARTMENT OF CHEMICAL ENGINEERING

Highlights

- ❖ MSc and PhD degrees are available
- ❖ All faculty members hold PhD degrees
- ❖ Laboratories support wide range of research topics in biochemical engineering, advanced materials, filtration, thermodynamics, and reaction engineering.

Program Facts

Program founded: 1967

Program start dates: Fall & Spring

Expected length of Masters: 2 years

Expected length of PhD: 5 years

of Faculty members: 10

% with highest degree in field: 100%

of Endowed Chairs/Professors: 1

Student Profile	Master	PhD
Student Applied/yr	79	17
Student Accepted/yr	44	11
Students Enrolled/yr	12	3
Total program Enrollment	25	15
# of International Students	20	10

Admissions at a Glance

Application Fee: \$25 (domestic)

\$50 (international)

GRE Score: 1350 for combined Math+A where $A=(\text{Analytical}+2)*100$

TOEFL: International students whose native language is not English are required to obtain a TOEFL score of at least 550 pbt, 213 cbt for admission. A guideline of undergraduate GPA expectations for a number of schools is listed in Table 1.

Domestic Students Application

Deadline: Six weeks before the term starts

International Students Application

Deadline: Four months before the term starts

Application Review Schedule

Applications received after October 1 will be reviewed in February.

Admissions

Applicants to the University of Akron Chemical Engineering Department must have an acceptable GRE score (see page 2) and a bachelor's degree with an academic record distinctly above average. A guideline of undergraduate GPA expectations for a number of schools is listed in the Admissions Handbook in Table 1.. Applicants whose native language is not English must have a minimum TOEFL score of 550 (pbt) or 213 (cbt).

Conditional admission is offered to students who are academically acceptable but who have not yet reached the level of English proficiency required for full admission. Students may enroll in the English Language Institute (ELI) for one or more semesters until they are certified as English proficient. Students enrolled in the ELI may not take undergraduate courses at the same time. Applicants who have satisfactorily completed nine months of full-time academic course work at a US college or university and are in good standing academically may have the TOEFL requirement waived upon written request to the Office of International Programs.

International student applicants must provide official transcripts or attested copies from universities, schools or colleges previously attended. The originals must be accompanied by certified English translations. Upon written request, official documents may be returned to the student. Copies notarized by a Notary Public are not acceptable. All applicants must submit documentation for all prior degrees earned. Provisional certificates may be accepted pending the award of a degree. The same standards of authenticity apply as those used for transcripts.

Applications requesting financial aid should be submitted by March 1 for fall semester and September 1 for the spring semester. Students who do not possess a bachelor's degree in engineering should request literature describing the bridge program to prepare students for graduate education in Chemical Engineering.

Expenses and Financial Support

Students may apply for financial aid in the form of graduate assistantships. Graduate assistants render services to the university through teaching and/or research. UA awards a number of graduate assistantships to qualified students. Assistantships are normally awarded for up to two years of master's study and up to four years of doctoral study.

To be considered for financial aid a student must first apply to the Graduate School and be admitted to the university. Applications for assistantships must be sent directly to the chair of the department or director of the program to which you are seeking acceptance. Applications for a graduate assistantship should be submitted to the department/program by April 1 for the Fall semester and September 1 for the Spring semester. **All financial aid is allocated by individual faculty based on a match between their resources and students' research interests. Interested students should review the research interests and publication lists of the faculty and email those faculty of interest at an early stage. The Statement of Purpose should clearly indicate the research topic of interest (e.g. thermodynamics, reactions, transport, or biomolecular) and why. Failure to do so might limit the chances of the application being routed properly.**

International students: To cover tuition and living expenses for 12 months (Fall, Spring, and Summer semesters) international students without research or teaching assistantship will need approximately US\$22,000. International applicants should provide the Office of International Programs with an original bank statement reflecting the appropriate amount stated herewith; copies of financial documentation will not be accepted. Applicants are encouraged to send the original financial documentation to the Office of International Programs at the same time the application for

admission is sent to the Graduate School in order to prevent a delay in the issuance of the Certification of Eligibility.

Program Overview

The Department of Chemical Engineering at the University of Akron (UA) offers a Master of Science (MS) in Chemical Engineering and a Doctor of Philosophy (PhD) in engineering.

Areas of specialization for graduate students include catalysis, enzymatic synthesis, filtration, biocompatible materials, bio-reaction engineering, chemical vapor deposition, molecular simulation, supercritical fluids, colloids and adhesion, surface modification, polymer thin films, advanced materials, chaos, and controls.

To earn an MS degree under thesis option, students must complete 30 credit hours of study. This includes a minimum of 24 credit hours of course work and six credit hours of thesis work. A written comprehensive thesis and an oral defense of the thesis are also required.

PhD students must complete a minimum of 96 credit hours including 36 hours of coursework beyond the bachelor of science level. Students must pass a departmental qualifying examination, a candidacy examination, and present and successfully defend their dissertation to a college-wide Interdisciplinary Doctoral Committee of five faculty. The PhD degree has a residency requirement of one year full-time.

An MS in Chemical Engineering typically requires two years to complete. The PhD typically requires an additional three years. The department has a goal of averaging at least one ISI journal publication per thesis and at least three per dissertation.

Since the Fall of 2000, an option has been available for students with BS degrees in subjects other than Chemical Engineering interested in bridging to a MS Chemical Engineering degree. This program enables bridge students to complete their MS degree in roughly 6 months more than a student entering with a BS in Chemical Engineering.

International Students

Each year, approximately 850 international students from 89 countries pursue studies and research at UA. The University of Akron requires that all international students carry medical insurance that meets minimum established requirements. Such coverage must be in effect throughout the student's studies at the University of Akron.

International students are required to attend the International Student Orientation program that takes place one week before classes. The orientation dates will be mailed to students with their orientation letter and immigration documents.

MASTERS AND DOCTORAL STUDENTS

Students who have secured an assistantship for Master's program or Doctoral program should have satisfactory performance in the completion of the respective program. Any Masters student who receives an assistantship should pursue the Masters thesis option. Consideration of satisfactory performance for Ph.D. students includes progress in passing all subject categories of the qualifying exam.

Table 1. Approximate undergraduate GPA expectations for common international sources of applications based on successful experience of past students. Students should have GPA's higher than the values listed below to be eligible for admission. GPA's are computed based on technical and engineering coursework. This list continues to evolve as admissions proceed.

India		China	
Alagappa	81%	Beijing UCT	81%
Ambedkar	75%	Dalian	81%
Andhra	85%	East China	90%
Anna U	81%	Nanjing	3.5
Annamalai	77%	Sichuan	84%
Bangalore	75%	Tianjin	78%
Barathiar	81%	Tsinghua	81%
Baroda	70%	Xiamen	81%
BITS,Pilani	71%	Zhejiang	81%
Calcutta	75%		
IIT (all)	71%	Misc	
JNTU	80%	Korea, Soongsil	85%
M.Ghandi	68%	Korea, Sogang	3
Madras	74%	Jordan, UST	69%
Mangalore	81%	Saudi, Fahd	3.3
Mumbai(all)	71%	Turkey, Bogazici	2.8
N.Maharashtra	81%	Turkey, METU, Ege	3
Nirma	71%	Thai, Lodkrabang	3.1
Osmania	81%	Ghana, UST	3.3
Pune	90%	Taiwan, IST	83%
REC,Rourkela	80%	Iran, UST, Isfahan, Abadan	80%
Sathyabama	81%	Iran, Sharif, Tehran	70%
Shivaji	68%	Iran: Shiraz, Amir-Kabir	75%
Sriram EC	90%		
SriVenkataswara	75%		
UDCT(ICT)	71%		
Visveswaraiah	3.30		