Course Requirements

❑ **Undergraduate Courses**
  A. Graduation Credits : at least 130 credits in total
    ※ A cumulative grade point average of 2.0 or higher out of a possible 4.3 in all coursework
  B. General Course : At least 27 credits and 9AU(applicable to students entering KAIST in 2009 and onward; for those who have entered KAIST before 2009, refer to the Course Completion Requirements by Year of Admission)
    ◦ Mandatory General Course
      - Students entering KAIST in 2009 and onward : 6 credits and 9AU
        English Communication(1), Critical Thinking in English(2), Writing(3), Physical Education(4AU), Community Service(2AU), Humanity/Leadership(2AU), Ethics and Safety II (1AU)
      - Students entering KAIST between 2007 and 2008 : 7 credits and 9AU
        English Communication I(1), English Communication II(1), English Reading&Writing(2), Writing(3), Physical Education(4AU), Community Service(2AU), Humanity/Leadership(2AU), Ethics and Safety II (1AU)
        * English Communication I → English Communication
          English Communication II → English Conversation
          English Reading&Writing → Critical Thinking in English
    ◦ Elective General Course in Humanities & Social Science : at least 21 credits
        - Students entering KAIST in 2009 and onward : at least 21 credits including at least 1 course in each of 2 divisions among 3 divisions(Humanity, Society, Culture & Art)
        - Students having entered KAIST before 2009 : at least 21 credits including at least 1 course in each of 2 divisions among 5 divisions(Science Technology; Literature and Art; History and Philosophy; Social Science; Foreign Language and Linguistics) or at least 1 course in each of 2 divisions among 3 divisions(Humanity, Society, Literature&Art)
        - Students entering KAIST in 2007 and onward should earn at least 18 credits through English lectures among the 21 credits required as Elective General Courses in Humanities & Social Science.
      ※ Students having a double major take 12 credits without considering categories. (Students entering KAIST in 2007 and onward should take 12 credits through English lectures.)
  C. Completion of Basic Courses: at least 32 credits (applicable to students entering KAIST in 2008 and onward; for those who have entered KAIST before 2009, refer to the Course Completion Requirements by Year of Admission)
      ◦ Mandatory Basic Courses: 26 credits
        ① 1 course among Fundamental Physics I (3), General Physics I (3), and Advanced Physics I (3)
        ② 1 course among Fundamental Physics II (3), General Physics II (3), and Advance Physics II (3)
        ③ 1 course of General Physics Lab I (1)
        ④ 1 course of Basic Biology (3) or General Biology (3)
        ⑤ 1 course of Calculus I (3) or Honor Calculus I (3)
        ⑥ 1 course of Calculus II (3) or Honor Calculus II (3)
        ⑦ 1 course among Basic Chemistry (3), General Chemistry I (3), and Advanced Chemistry (3)
        ⑧ 1 course of General Chemistry Lab I (1) or Advanced Chemistry Lab (1)
        ⑨ 1 course of Basic Programming (3) or Advanced Programming (3)
        ⑩ Freshman Design Course : Introduction to Design and Communication (3)
      ※ Students having entered KAIST in 2007 or before : 23 credits (①~⑨)
      ◦ Elective Basic Courses: at least 6 credits
        ※ Students having a double major take 3 credits.

D. Major Course : at least 41 credits
  ◦ Mandatory Major Courses : 6 credits (Molecular Engineering Laboratory(3), Chemical and Biomolecular Engineering Laboratory(3))
  ◦ Elective Major Courses : at least 35 credits
    * Substitute Courses
      - CBE203 Industrial Organic Chemistry(3)→CH221 Organic ChemistryⅠ(3)
      - CBE260 Biomolecular Engineering(3)→BS209 Molecular Biology(3)
E. Elective Course
F. Research Course : at least 4 credits
  ◦ Graduation Research : 3 credits (required)
  ◦ Department Seminar : 1 credit (required in senior year)
  ◦ Individual Study : 2 credits at most
  ※ Students having a double major are exempt.
G. English Proficiency Requirements upon Graduation
  ◦ Students are required to meet one of the following requirements on English proficiency before entering KAIST or during their years of enrollment: 560 points in PBT TOEFL; 220 points in CBT TOEFL; 83 points in IBT TOEFL; 6.5 points in IELTS; 720 points or 760/775 points in TOEIC (see below); or 599 points or 670/690 points in TEPS (see below).
    ※ Criteria for TOEIC and TEPS scores
      - Students submitting scores from new TOEIC (held in May 2006 and onward) or TEPS held on March 1, 2007 and onward: 720 points in TOEIC; or 599 points in TEPS
      - Students submitting scores from old TOEIC (held before April 2006) or TEPS held before February 28, 2007:
        ▫ Students entering KAIST in 2008 and onward: 775 points in TOEIC; or 690 points in TEPS
        ▫ Students entering KAIST in 2007 or before: 760 points in TOEIC; or 670 points in TEPS
※ Requirements for a double major : 40 credits including mandatory major courses
※ Requirements for a minor : at least 18 credits (Mandatory Major Course : 3 credits, Elective Major Course : 15 credits)

※ General and basic courses in undergraduate program are different from years of admission; therefore, students entering KAIST before 2009 should refer to the Course Completion Requirements by Year of Admission.

❑ Master's Program
1) Thesis Master's Degree
  A. Graduation Credits : at least 33 credits
  B. Mandatory General Course : 3 credits and 1AU
    - Choose one of the following.
      Scientific Writing, Introduction to Computer Application, Probability and Statistics, Introduction to Materials and Engineering, Engineering Economy and Cost Analysis, Introduction to Instruments, Entrepreneurship and Business Strategies, Patent Analysis and Invention Disclosure, Collaborative System Design and Engineering
    - CC010 Special Lecture on Leadership(non-credit, this applies to students entering KAIST in 2002 and onward; general scholarship students, foreign students are excluded)
    - CC020 Ethics and Safety I(1AU)
  C. Mandatory Major Course : none
  D. Elective Course : at least 18 credits(It is required, at least, to take 15 credits from the lectures offered

by the department.)
- E. Research Credits : at least 12 credits(Including 3 credits from Seminar. Seminar credits may be substituted by the number of semester taking 'Introductory Korean for Foreigners' or performing internship required by Interdisciplinary program.)

2) Coursework Master's Degree : none

❑ **Doctoral Program**
- A. Graduation Credits : at least 60 credits
- B. Mandatory General Course : 3 credits and 1AU (The course taken in the MS program is approved.)
- C. Mandatory Major Course : none
- D. Elective Course : at least 27 credits(It is required, at least, to take 18 credits from the lectures offered by the department.)
- E. Research Credits : at least 30 credits
- ※ The course credits earned in the Master's course work can be used towards the Doctoral degree(except research credits).

❑ **Measures for Change**
- A. Undergraduate Courses
- B. Graduate Courses : These requirements apply to all students of Department of Chemical and Biomolecular Engineering from 2009 academic year.