

## **M.S. Requirements in the Department of Chemical Engineering at National Cheng Kung University**

106.09.18 modified by 2<sup>nd</sup> meeting of graduate-student committee of fall semester

106.09.25 approved by the 1<sup>st</sup> departmental meeting of fall semester

109.01.13 approved by the 2<sup>nd</sup> departmental meeting of fall semester

112.09.25 approved by the 1<sup>st</sup> departmental meeting of fall semester

1. The requirement is applicable to the M.S. students who enrolled after the academic year of 113 (included).
2. M.S. students may complete their M.S. degree in 1 to 4 years. For the M.S. students who publish at least one full article in a peer-reviewed journal and acquire two points according to the “Journal publication requirement for Ph.D. students in Department of Chemical Engineering at National Cheng Kung University”, they may apply for the M.S. oral defense at the end of the first year in their M.S. study.
3. The credit hour requirement for graduation is at least 24 credit hours for the specialized selective courses and 6 credit hours for the M.S. thesis. Among the three required core courses (Advanced Transport Phenomena, Advanced Chemical Engineering Thermodynamics, and Advanced Chemical Reaction Engineering), the M.S. students must take at least two offered by the department. The M.S. students who take the graduate courses with grades over 70 points during their B.S. study and those courses are not counted in the minimum credit hour requirement for B.S. graduation, they may waive no more than 12 credit hours with those courses only if the title and content of those courses are almost identical to those lectured at National Cheng Kung University. The lecturers for the courses will have the right to justify whether the courses taken at other universities or colleges can be waived or not.
4. M.S. students must take and pass the course “graduate seminar” for 4 semesters (included). The credit hours will be not counted in the minimum credit hour requirement. For the M.S. students who complete the M.S. degree in one year, they only need to take and pass the course “graduate seminar” for 2 semesters.
5. Students must complete their M.S. theses and pass the oral defense in order to be awarded with the M.S. degree. Beside M.S. theses, students who pass the oral defense need to complete an English manuscript of a minimum of 5000 words written in the academic journal format designated by the advisors. The manuscript must undergo the originality check under the regulations of the Department of Chemical Engineering at National Cheng Kung University (form M-20) and obtain approval through the review and the signature by the advisors.
6. M.S. students who complete their degree in 1 year can acquire the documentation

from their advisors in order to take the military officer examination.

7. For the M.S. students who enroll after the academic year of 104 (included) and their undergraduate major is not Chemical Engineering, they must choose one of the following course options and fulfill it in order to be eligible for graduation:

(a) take and pass (scoring at least 70 points) two of the four courses (Unit Operation I, Unit Operation III, Chemical Engineering Thermodynamics, and Chemical Reaction Engineering) at the undergraduate level

(b) take and pass (scoring at least 70 points) two of the three graduate courses (Advanced Transport Phenomena, Advanced Chemical Engineering Thermodynamics, and Advanced Chemical Reaction Engineering)

(c) take and pass (scoring at least 70 points) two graduate courses (Chemical Engineering I and II). The courses are instructed in English and include the subject materials such as Mass and Energy Balance, Transport Phenomena, Chemical Engineering Thermodynamics, and Chemical Reaction Engineering.

The credit hours for the abovementioned courses can be counted in the credit hour requirement for graduation.

8. For the M.S. students who enrolled before the academic year of 95 (included) and their undergraduate major was not Chemical Engineering, they must take and pass (scoring 70 points) all of the following four courses, i.e. Unit Operation I, Unit Operation III, Chemical Engineering Thermodynamics, and Chemical Reaction Engineering at the undergraduate level. These credit hours can be counted in the minimum credit hour requirement.

9. The transfer students are considered as those newly granted admission to the M.S. program in the same year. All requirements and regulations for the graduation and course credit waiver are the same as stated above.

10. For the international M.S. students who do not possess the fundamental knowledge related to chemical engineering (for example, the course regarding “Unit Operation”, “Chemical Engineering Thermodynamics”, or “Chemical Reaction Engineering” does not appear in the transcript), they must choose one of the course options listed in the Regulation #7 and fulfill it in order to be eligible for graduation. Any dispute regarding this issue will be resolved by Graduate Student Affairs Committee.

11. This regulation will be enforced after being passed by the Departmental Affairs Meeting. The same procedure will be applied for future revision.