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COLLEGE OF ENGINEERING

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**Texas A&M University-Kingsville  
College of Engineering  
Minimum Standards for M.S. Research Projects**

Based on a decision made by the College Graduate Committee during a meeting held in March 2, 2017, the following rules were approved unanimously as obligatory guidelines for projects produced by graduate students working towards their degrees at the College of Engineering. The following rules are effective on the first day of the Fall semester of 2017:

- 1- The amount of work/time required needs to be at least equivalent to one semester of a 3-SCH course or more. Students should meet with the advisor and/or other students as a group on a regular basis for guidance and assessment of progress.
- 2- Projects can be based on many different types of research, such as the following forms, or a combination of them:
  - a. Experimental work in the lab that may either be independent or performed in conjunction with guidance provided from a company or a PhD student.
  - b. A project carried out either in or for a company
  - c. In-depth review of a topic based on latest literature with verification or conclusions followed by an extension into some other aspect that has not been explored.
  - d. Design and simulation of a complex system, such as a process component (reactor, distillation column, etc.) or an entire process.
  - e. Thorough evaluation of a recently published paper, such as verifying/rejecting results with the same or different method/s.
  - f. Analytical/numerical solution to a complex problem using modern software tools.
- 3- Literature review of the project needs to include at least six recent papers from a refereed journal/conference on the topic, not including web-based references. Preferred number of reference should exceed ten or more. All literature should be properly cited and used as the basis for defining the motivation for the project.
- 4- The project report format follows exactly that of a M.S. thesis, including all components of a formal technical report. The volume of the report should be at least 25 content pages.
- 5- Before the project can formally start, the student and project advisor should prepare a contract, no more than 1 page, which describes and justifies the project, specific outcomes expected, and specific methodologies to be employed to achieve the outcome. The contract should be signed by both student and advisor, and forwarded to the Graduate Coordinator, who will forward it to the Chair for approval, after review. The contract should be submitted to the Chair no later than the end of the 10<sup>th</sup> class day for the semester the student is registering for the project.
- 6- The project needs to be formally presented in front of at least 2 faculty members of the department including advisor. The student must be able to defend the work and also answer questions related to coursework topics.

### M.S. Research Project Contract

This contract should be submitted to the Department Chair not later than the end of the 10<sup>th</sup> class day for the semester the student is registering for the M.S. research project (EVEN 5305).

**Project Justification** (*Max. number of characters: 720*)

**Specific Expected Outcomes** (*Max. number of characters: 618*)

**Methodology to Achieve the Expected Outcomes** (*Max. number of characters: 1,130*)

Student understanding acknowledgment of “College of Engineering Minimum Standards for M.S. Research Project”: \_\_\_\_\_ (student initials)

Approved by:

|                           | Type Name            | Signature | Date  |
|---------------------------|----------------------|-----------|-------|
| Student                   | <input type="text"/> | _____     | _____ |
| Advisor                   | <input type="text"/> | _____     | _____ |
| M.S. Graduate Coordinator | <input type="text"/> | _____     | _____ |
| Department Chair          | <input type="text"/> | _____     | _____ |