Program Assessment Plan

Program: Master of Science in Engineering, Thesis or Project

Department:

College/School: Parks College of Engineering, Aviation and Technology, School of Engineering

Date: Summer 2018

Primary Assessment Contact: Dr. Riyadh Hindi

Note: Each cell in the table below will expand as needed to accommodate your responses.

#	**Program Learning Outcomes** What do the program faculty expect all students to know, or be able to do, as a result of completing this program? ▪ *Note: These should be measurable, and manageable in number (typically 4-6 are sufficient).*	**Assessment Mapping** From what specific courses (or other educational/professional experiences) will artifacts of student learning be analyzed to demonstrate achievement of the outcome? Include courses taught at the Madrid campus and/or online as applicable.	**Assessment Methods** What specific artifacts of student learning will be analyzed? How, and by whom, will they be analyzed? ▪ *Note: the majority should provide direct, rather than indirect, evidence of achievement.* Please note if a rubric is used and, if so, include it as an appendix to this plan.	**Use of Assessment Data** How and when will analyzed data be used by faculty to make changes in pedagogy, curriculum design, and/or assessment work? How and when will the program evaluate the impact of assessment-informed changes *made in previous years*?
1	Apply knowledge of professional and analytical skills that shows an in-depth understanding of theoretical and practical concepts.	*Thesis or Project Proposal and Defense/Presentation; Written Thesis or Project* *Courses: AENG 5964 OR AENG 5994; BME 5990; CVNG 5960 OR CVNG 5990; ECE 5960; MENG 5964 OR MENG 5994*	Results form for MS Thesis OR final Project outcome; Annual Student Review; Rubric being developed	The program chair will gather a committee of faculty to review performance of students and applicable paperwork on a rotating schedule so one of the three outcomes is reviewed once a year to determine if changes to program are necessary.
2	Communicate clearly and creatively a mastery of topics required to solve complex engineering problems through written and oral presentations.	*Thesis or Project Proposal and Defense/Presentation; Written Thesis or Project* *Courses: AENG 5964 OR AENG 5994; BME 5990; CVNG 5960 OR CVNG 5990; ECE 5960; MENG 5964 OR MENG 5994*	Results form for MS Thesis OR final Project outcome; Annual Student Review; Rubric being developed	The program chair will gather a committee of faculty to review performance of students and applicable paperwork on a rotating schedule so one of the three outcomes is reviewed once a year to determine if changes to program are necessary.
3	Conduct guided research that exhibits	*Thesis or Project Proposal and*	Results form for MS Thesis OR final	The program chair will gather a

	independent thought required to pursue advanced work addressing problems in broader contexts.	*Defense/Presentation; Written Thesis or Project* *Courses: AENG 5964 OR AENG 5994; BME 5990; CVNG 5960 OR CVNG 5990; ECE 5960; MENG 5964 OR MENG 5994*	Project outcome; Annual Student Review; Rubric being developed	committee of faculty to review performance of students and applicable paperwork on a rotating schedule so one of the three outcomes is reviewed once a year to determine if changes to program are necessary.

Additional Questions

1. On what schedule/cycle will faculty assess each of the above-noted program learning outcomes? *(It is <u>not recommended</u> to try to assess every outcome every year.)*

   Faculty will access one outcome every year so all three outcomes will all be reviewed within a 3-year cycle.

2. Describe how, and the extent to which, program faculty contributed to the development of this plan.

   This plan was vetted by the Parks Faculty Assembly and the Parks Graduate Committee.

3. On what schedule/cycle will faculty review and, if needed, modify this assessment plan?

   The whole assessment plan will be reviewed as a whole on a 3-year cycle once all 3 learning outcomes have been reviewed once.

IMPORTANT: Please remember to submit any assessment rubrics (as noted above) along with this report.

Program Assessment Plan

Program: Master of Science in Engineering, Non-Thesis

Department:

College/School: Parks College of Engineering, Aviation and Technology, School of Engineering

Date: Summer 2018

Primary Assessment Contact: Dr. Riyadh Hindi

Note: Each cell in the table below will expand as needed to accommodate your responses.

#	**Program Learning Outcomes** What do the program faculty expect all students to know, or be able to do, as a result of completing this program? ▪ *Note: These should be measurable, and manageable in number (typically 4-6 are sufficient).*	**Assessment Mapping** From what specific courses (or other educational/professional experiences) will artifacts of student learning be analyzed to demonstrate achievement of the outcome? Include courses taught at the Madrid campus and/or online as applicable.	**Assessment Methods** What specific artifacts of student learning will be analyzed? How, and by whom, will they be analyzed? ▪ *Note: the majority should provide direct, rather than indirect, evidence of achievement.* Please note if a rubric is used and, if so, include it as an appendix to this plan.	**Use of Assessment Data** How and when will analyzed data be used by faculty to make changes in pedagogy, curriculum design, and/or assessment work? How and when will the program evaluate the impact of assessment-informed changes *made in previous years*?
1	Apply knowledge of professional and analytical skills that shows an in-depth understanding of theoretical and practical concepts.	*Each program will pick 2 courses for assessment. Examples include:* *AENG 5050; AENG 5460* *BME 5600; BME 5650* *CVNG 5050; CVNG 5350* *ECE 5055; ECE 5142* *MENG 5100; MENG 5150*	Written assignments and oral presentations in all of these courses; Annual Student Review; Rubric being developed	The program chair will gather a committee of faculty to review performance of students and applicable paperwork on a rotating schedule so one of the three outcomes is reviewed once a year to determine if changes to program are necessary.
2	Communicate clearly and creatively a mastery of topics required to solve complex engineering problems through written and oral presentations.	*Each program will pick 2 courses for assessment. Examples include:* *AENG 5050; AENG 5460* *BME 5600; BME 5650* *CVNG 5050; CVNG 5350*	Written assignments and oral presentations in all of these courses; Annual Student Review; Rubric being developed	The program chair will gather a committee of faculty to review performance of students and applicable paperwork on a rotating schedule so one of the three outcomes is reviewed once a year to determine if changes to program are necessary.

		ECE 5055; ECE 5142 *MENG 5100; MENG 5150*		
3	Exhibit independent thought and ideas required to pursue advanced work addressing problems in broader contexts.	*Each program will pick 2 courses for assessment. Examples include:* *AENG 5050; AENG 5460* *BME 5600; BME 5650* *CVNG 5050; CVNG 5350* *ECE 5055; ECE 5142* *MENG 5100; MENG 5150*	Written assignments and oral presentations in all of these courses; Annual Student Review; Rubric being developed	The program chair will gather a committee of faculty to review performance of students and applicable paperwork on a rotating schedule so one of the three outcomes is reviewed once a year to determine if changes to program are necessary.

Additional Questions

1. On what schedule/cycle will faculty assess each of the above-noted program learning outcomes? *(It is <u>not recommended</u> to try to assess every outcome every year.)*

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2. Describe how, and the extent to which, program faculty contributed to the development of this plan.

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IMPORTANT: Please remember to submit any assessment rubrics (as noted above) along with this report.