Student Learning Summary Form AY2015-16
Due to your dean by June 1

Due from dean to assessment office by June 15

Degree Program Name: Master of Science: Electronics & Computer Technology   MS-ECT (On Campus & Distance)
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Part One

a. What learning outcomes did you assess this year? If this is a graduate program, indicate the Graduate Student Learning Outcome* each outcome aligns with.	b. (1) What method(s)s did you use to determine how well your students attained the outcome? (2) In what course or other required experience did the assessment occur?	c. What expectations did you establish for achievement of the outcome?	d. What were the actual results?	e. (1) Who was responsible for collecting and analyzing the results? (2) How were they shared with the program's faculty?
1. Students demonstrate professional communication proficiencies.	ECT 679 (on campus) Research portfolio & presentation. ECT 697 (Distance) Research based major project development & defense	Show applications of research methodology to technical problems and deliver results in oral and written format to a minimum of 73% (C) effectiveness.	At least 90% of students achieved the standard.	Course Instructor (ECT 679); or Committee (ECT 697) Results are shared with faculty & Industrial Advisory Board (IAB) members during our annual meeting.
2. Students engage in and meaningfully contribute to diverse and complex communities and professional environments	ECT 680 (on campus & distance) Project development activities arranged with the course instructor	Engaged in various instructor mentored, student led team building projects related to the ECT area designed to foster professional development in a diverse environment to a minimum of 73% (C) effectiveness.	At least 90% of students achieved the standard	Course Instructor Results are shared with faculty & Industrial Advisory Board (IAB) members during our annual meeting.
3. Students recognize and act on professional and ethical challenges that arise in their field or discipline.	ECT 680 (on campus & distance) Project development activities arranged with the course instructor	Engaged in various instructor mentored, student led team building projects related to the ECT area designed to foster professional development in a diverse environment to a minimum of 73% (C) effectiveness.	At least 90% of students achieved the standard	Course Instructor Results are shared with faculty & Industrial Advisory Board (IAB) members during our annual meeting.
4. Students achieve mastery of the knowledge required in their	ECT 679 (on campus) Research portfolio & presentation.	Show in depth knowledge of the ECT field and current challenges, with applications	At least 90% of students achieved the standard	Course Instructor (ECT 679); or Committee (ECT 697)

discipline or profession.	ECT 697 (Distance) Research based major project development & defense	of research to a minimum of 73% (C) effectiveness.		Results are shared with faculty & Industrial Advisory Board (IAB) members during our annual meeting.
5. Students achieve mastery of the skills (including using appropriate tools) required in their discipline or profession.	ECT 679 (on campus) Research portfolio & presentation. ECT 697 (Distance) Research based major project development & defense	Apply research methods to demonstrate problem solving skills and effectively communicate the results to a minimum of 73% (C) effectiveness.	At least 90% of students achieved the standard	Course Instructor (ECT 679); or Committee (ECT 697) Results are shared with faculty & Industrial Advisory Board (IAB) members during our annual meeting.

Part Two
In no more than one page, summarize 1) the discoveries assessment has enabled you to make about your students' learning, the curriculum, departmental processes, and/or the assessment plan itself; 2) the changes and improvements you have made or will make in response to these discoveries and/or the coordinator's feedback on the previous summary; and 3) what your assessment plan will focus on in the coming year.
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MS-ECT program assessment by ECET Graduate Faculty has been positive overall that we are meeting the needs of our students while maintaining appropriate rigor and quality of instruction within the program. Discussion with our Industrial Advisory Board (IAB) is also positive on these critical issues, although there are concerns of future sustainability with current graduate faculty available to support teaching and research activities with the number of students in the program as three tenure/tenure-track faculty were lost to resignation or retirement in the last year. This is an issue that has concerned faculty throughout the year, and will be a continued issue of concern.

Program evaluations are made using the ECT 680 course to demonstrate professional skills; and a capstone course to demonstrate mastery of research and communications skills (ECT 679 for on campus students, or ECT 697 for distance). Both the ECT 680 & the capstone courses are used to demonstrate a knowledge and application of technical skills in the subject area. Program evaluations are focused on these courses as major area courses will vary in on-campus students due to the concentration area selected by the individual student; while distance students do not have a concentration and may take a mix of courses from different concentrations. The remainder of the program is elective courses which will vary by student interest. The ECT680 and ECT679, or ECT697, courses are usually taken by students in their second year of the program, often graduating semester, and have proven to provide the most effective means of accomplishing a comprehensive evaluation of student achievement in the program's learning outcomes. The courses are offered each Spring semester.

Presently the graduate faculty feel that the measurement techniques used in the program are appropriate and adequate to measure student outcomes in a meaningful way. The use of research portfolios and project based experiential learning assignments provide a number of independent indicators of overall performance and include indicators for demonstration of technical knowledge in the ECT field with research applications; the ability to work in a professional environment both independently and in teams; as well as demonstration of reasoning ability supported by written and oral communications skills. Assessment plans for the coming year will continue in the same manner as this year's assessment.

Degree Program: MS in Electronics & Computer Technology Date: 7.26.16

	Level 0 – Undeveloped	Level 1 – Developing	Level 2 – Mature	Level 3 – Exemplary
1. Student Learning Outcomes	☐ No outcomes are identified.	☐ Outcomes were identified ☐ Some of the outcomes are specific and measurable. ☐ Some of the outcomes are student-centered. ☐ A Curriculum Map was provided.	☒ Outcomes are specific, measurable, student-centered program outcomes. ☒ Outcomes at least indirectly support Foundational Studies Learning Outcomes or the Graduate Learning Goals. ☒ The Curriculum Map identifies where/to what extent each outcome is addressed. ☐ At least one outcome was assessed in this cycle.	☐ Outcomes are specific, measurable, student-centered program outcomes that and span multiple learning domains. ☐ Outcomes directly integrate with Foundational Studies Learning Outcomes or the Graduate Learning Goals. ☐ Outcomes reflect the most important results of program completion (as established by an accreditor or other professional organization). ☒ Learning outcomes are consistent across different modes of delivery (face-to-face and online.) ☐ Outcomes are regularly reviewed (and revised, if necessary) by the faculty and other stakeholders. ☐ The Curriculum Map identifies where/to what extent each outcome is addressed and offers evidence that students have sufficient opportunity to master the associated learning outcomes. ☒ Two or more outcomes were

				assessed in this cycle.
2. Measures & Performance Goals	☐ No measures are provided. ☐ No goals for student performance are identified.	☒ Measures are provided, but some are vague and/or do not clearly assess the associated outcomes. ☐ Measures are primarily indirect. ☒ Measures include course and/or assignment grades, but there is no evidence that grades are calibrated to the outcomes. ☒ Performance goals are identified, but they are unclear or inappropriate.	☒ At least one direct measure was provided for each outcome. ☐ Some information is provided to suggest that measures are appropriate to the outcomes being assessed. ☐ Measures include course and/or assignment grades, and general information is provided to indicate that grades are calibrated to the outcomes. ☐ Clear and appropriate standards for performance are identified. ☐ Mechanisms (rubrics, checklists, criterion-referenced exams, etc.) were provided.	☐ Multiple measures were provided, and a majority are direct. ☐ Detailed information is provided to show that measures are appropriate to the outcomes being assessed. ☐ Measures include course and/or assignment grades, and specific evidence is provided to demonstrate that grades are calibrated to the outcomes. ☐ Clear and appropriate standards for performance are identified and justified. ☐ If students are required to pass a certification or licensure exam to practice in the field, this was included as a measure. ☒ Measures assess some high impact practices (internships, capstone course projects, undergraduate research, etc.) ☐ Some measures allow performance to be gauged over time, not just in a single course. ☐ Mechanisms (rubrics, checklists, criterion-referenced exams, etc.) were provided that demonstrate that the measure provides clear evidence of what students know/can do.

				☐ If a measure is used to assess more than one outcome, a clear explanation is offered to substantiate how this is effective.
3. Results	☐ No data are being collected. ☐ No information is provided about the data collection process. ☐ No results are provided. ☐ Students are meeting few of the performance standards set for them.	☐ Some data are being collected. ☐ Some data are being analyzed. ☐ Some results are provided. ☒ Insufficient information is offered to demonstrate that data collection, analysis, and interpretation processes are valid. ☐ Students are achieving some of the performance standards expected of them.	☒ Data are being collected and analyzed. ☒ Results are provided. ☐ Some information is offered to demonstrate that data collection, analysis, and interpretation processes are valid and meaningful. ☒ Students generally are achieving the performance standards expected of them.	☐ Clear, specific, and complete details about data collection, analysis, and interpretation of results are provided to demonstrate the validity and usefulness of the assessment process. ☐ Students generally are achieving the performance standards expected of them and demonstrate continuous improvement on standards they have yet to achieve/achieve less well. ☐ If students are required to pass a certification or licensure exam to practice in the field, the pass rate meets the established benchmark.
4. Engagement & Improvement	☐ No one is assigned responsibility for assessing individual measures. ☐ Assessment primarily is the responsibility of the program chair. ☒ No improvements (planned or actual) are identified. ☐ No reflection is offered about previous results or	☐ The same faculty member is responsible for collecting and analyzing most/all assessment results. ☐ It is not clear that results are shared with the faculty as a whole on a regular basis. ☐ Plans for improvement are provided, but they are not clear and/or do not clearly connect to the results.	☒ Multiple faculty members are engaged in collecting and analyzing results. ☒ Results regularly are shared with the faculty. ☐ The faculty regularly engages in meaningful discussions about the results of assessment. ☐ These discussions lead to the development of specific, relevant plans for improvement.	☐ All program faculty members are engaged in collecting and analyzing results. ☐ Faculty regularly and specifically reflect on students' recent achievement of performance standards and implement plans to adjust activities, performance goals, outcomes, etc. according to established timelines. ☐ Faculty and other important

	plans.	☒ Little reflection is offered about previous results or plans.	☐ Improvements in student learning have occurred as the result of assessment.	stakeholders reflect on the history and impact of previous plans, actions, and results, and participate in the development of recommendations for improvement. ☐ Continuous improvement in student learning occurs as the result of assessment. ☐ Outcomes and results are easily accessible to stakeholders on/from the program website. ☐ Assessment is integrated with teaching and learning.
Overall Rating	☐ **Level 0 – Undeveloped**	☒ **Level 1 - Developing**	☐ **Level 2 – Mature**	☐ **Level 3 – Exemplary**

COMMENTS
Strengths, Concerns, Recommendations for Improvement

1. **Learning Outcomes**
   The student learning outcomes listed here are clear and measurable and appear to be the same for both online and face-to-face cohorts. I did notice that they do not match the outcomes in the Outcomes Library or Curriculum Map, so I assume these documents need to be updated. You'll find the link to the new templates at https://www.indstate.edu/assessment/plan-components.

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2. **Measures & Performance Goals**
   Three discrete measures are used to assess the five outcomes, but not enough information is provided for me to see that some of them actually assess the related outcomes. It makes sense that a portfolio and presentation would be used to assess communication skills. But I don't know what the group projects entail to ensure that they assess students' abilities to contribute to diverse communities and recognize and act on ethical challenges. Please provide more details about the measures, including links to the rubrics or other instruments you use to determine exactly what students know/can do so that you can score their work. You set the performance expectation at 73%. Must all students earn at least a C, or just 90% of them?

3. **Results**
   Results do not list the number of students who participated in each assessment, and nor do they specify precisely how many students were successful. "At least 90%" is not clear enough.

4. **Engagement & Improvement**
   Several individuals appear to be involved in collecting and analyzing data which are shared with the larger faculty and the advisory board. But Part Two tells me little about what you learned from this year's assessment activities and nothing about the plans you've developed to address concerns or simply ensure that learning continuously improves. Please include more detail in next year's report.

   Thanks for sharing this information about your assessment program. I look forward to learning more next year!