

# **Program Outcomes Assessment**

**MS in Electronics**

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## **General Information (Program Outcomes Assessment)**

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# Standing Requirements

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## Mission Statement

The Mission of the MS ECT program is to provide students with an undergraduate degree related to Electronics, Computer, Information, or Automation & Controls technology, and who desire to advance their career potential, with an individualized rigorous program of study to enhance previously acquired skills in the field, or to broaden their range of skills in the field.

## Outcomes Library

### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

Outcome	Mapping
1. proficiency to perform and apply research The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.	No Mapping
2. ability to develop scholarship The student will effectively demonstrate the ability to develop scholarship in the ECT field.	No Mapping
3. ability to work independently The student will effectively demonstrate the ability to work independently.	No Mapping
4. ability to orally present the results of their inquiry The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.	No Mapping
5. acquire, or improve existing, technical knowledge The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.	No Mapping
6. apply theoretical knowledge to practical applications The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.	No Mapping
7. evaluation and integration of technical knowledge The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.	No Mapping

## Curriculum Map

### Active Curriculum Maps

- **MS in Electronics & Computer Technology Program** (See appendix)  
**Alignment Set:** MS in Electronics & Computer Tech Outcome Set  
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## **Communication of Outcomes**

Directives to the Outcomes for the MS in Electronics & Computer Technology Program will be included in the ISU Catalog, posted to the COT Website, and included in the ECET Department area of the ISU Website. Complete data and analysis of Outcomes will be held in the Department files. Additionally, Objectives and Outcomes, analysis, and operationalized results will be included in the Assessment portion of the Accreditation documentation.

## **Archive (This area is to be used for archiving pre-TaskStream assessment data and for current documents.)**

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 **Archive**

## 2011-2012 Assessment Cycle

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### Assessment Plan

#### Outcomes and Measures

#### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

##### 5. acquire, or improve existing, technical knowledge

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

▼ **Measure:** examination scores  
Direct - Exam

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

▼ **Measure:** Laboratory Assignments  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

##### 6. apply theoretical knowledge to practical applications

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

▼ **Measure:** Laboratory Assignments  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

▼ **Measure:** Student Projects  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator



### 7. evaluation and integration of technical knowledge

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

▼ **Measure:** Class Project  
Direct - Student Artifact

**Details/Description:** ECT 680

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

## Assessment Findings

### Finding per Measure

## MS in Electronics & Computer Tech Outcome Set

### MS in Electronics & Computer Technology Outcomes

### 5. acquire, or improve existing, technical knowledge

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

▼ **Measure:** examination scores  
Direct - Exam

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663  
(those offered that semester)

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

#### Findings for examination scores

**Summary of Findings:** The scores showed an average competence of 82% across all knowledge areas. The lowest average scores were observed in robotics.

**Results:** Target Achievement: Met

**Recommendations :** An evaluation of the robotics automation course subject matter will be performed.

**Reflections/Notes :**

**These Findings are associated with the following Actions:**

**Examination scores**

(Action Plan; 2011-2012 Assessment Cycle)

▼ **Measure:** Laboratory Assignments  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663  
(those offered that semester)

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

#### Findings for Laboratory Assignments

**Summary of Findings:** The only laboratory content course offered during the cycle was ECT663 Theory of Electronic Controls. All students completed all lab assignments and the average score was 92%.

**Results:** Target Achievement: Met

**Recommendations :** None based on this cycle.

**Reflections/Notes :**

**These Findings are associated with the following Actions:**

**Examination scores**

(Action Plan; 2011-2012 Assessment Cycle)

## 6. apply theoretical knowledge to practical applications

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

▼ **Measure:** Laboratory Assignments  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

### Findings for Laboratory Assignments

**Summary of Findings:** The only laboratory content course offered during the cycle was ECT663 Theory of Electronic Controls. All students completed all lab assignments and the average score was 92%.

**Results:** Target Achievement: Met

**Recommendations :** None for this cycle.

**Reflections/Notes :**

**These Findings are associated with the following Actions:**

**Student Projects**

(Action Plan; 2011-2012 Assessment Cycle)

▼ **Measure:** Student Projects  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

### Findings for Student Projects

**Summary of Findings:** MS degree projects in 3 credit and 6 credit courses. There was a 80% completion rate on the projects during this cycle. The average score was above 90%.

**Results:** Target Achievement: Not Met

**Recommendations :** The 20% non-completion of projects during a 2 semester period is being addressed through a tightening of the policy on incomplete grade approvals.

**Reflections/Notes :**

**These Findings are associated with the following Actions:**

**Student Projects**

(Action Plan; 2011-2012 Assessment Cycle)

**7. evaluation and integration of technical knowledge**

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

▼ **Measure:** Class Project  
Direct - Student Artifact

**Details/Description:** ECT 680

**Target:**

**Implementation Plan (timeline):** Spring 2012

**Responsible Individual(s):** Program Coordinator

**Findings for Class Project**

**Summary of Findings:** All ECT680 projects were completed during the cycle. The average score was above 90%.

**Results:** Target Achievement: Met

**Recommendations :** None.

**Reflections/Notes :**

**Overall Recommendations**

*No text specified*

**Overall Reflection**

*No text specified*

 **Action Plan**

**Actions**

**MS in Electronics & Computer Tech Outcome Set**

**MS in Electronics & Computer Technology Outcomes**

**1. proficiency to perform and apply research**

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Action:** Research

**This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The MSECT research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

**2. ability to develop scholarship**

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

▼ **Action:** Scholarship

**This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

**3. ability to work independently**

The student will effectively demonstrate the ability to work independently.

▼ **Action:** Independant work

**This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The project courses has been revised to better support the student's efforts and reduce the cycle time of the projects; to two semesters maximum.

**Implementation Plan (timeline):** 13-14 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

**4. ability to orally present the results of their inquiry**

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

▼ **Action:** Oral presentation

**This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

### 5. acquire, or improve existing, technical knowledge

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

#### ▼ Action: Examination scores

##### **This Action is associated with the following Findings**

##### **Findings for examination scores**

(Assessment Plan and Assessment Findings; 2011-2012 Assessment Cycle)

**Summary of Findings:** The scores showed an average competence of 82% across all knowledge areas. The lowest average scores were observed in robotics.

##### **Findings for Laboratory Assignments**

(Assessment Plan and Assessment Findings; 2011-2012 Assessment Cycle)

**Summary of Findings:** The only laboratory content course offered during the cycle was ECT663 Theory of Electronic Controls. All students completed all lab assignments and the average score was 92%.

**Action Details:** The course content for the Theory of Electronics Control has been reviewed and revised.

**Implementation Plan (timeline):** 12-13 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

### 6. apply theoretical knowledge to practical applications

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

#### ▼ Action: Student Projects

##### **This Action is associated with the following Findings**

##### **Findings for Laboratory Assignments**

(Assessment Plan and Assessment Findings; 2011-2012 Assessment Cycle)

**Summary of Findings:** The only laboratory content course offered during the cycle was ECT663 Theory of Electronic Controls. All students completed all lab assignments and the average score was 92%.

##### **Findings for Student Projects**

(Assessment Plan and Assessment Findings; 2011-2012 Assessment Cycle)

**Summary of Findings:** MS degree projects in 3 credit and 6 credit courses. There was a 80% completion rate on the projects during this cycle. The average score was above 90%.

**Action Details:** The lack on completion of student project is being address by making attendance in the MS project courses mandatory and requiring an approved project proposal be submitted before an Incomplete grade will be posted for the project course.

**Implementation Plan (timeline):** 12-13 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

### 7. evaluation and integration of technical knowledge

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

#### ▼ Action: Integration

##### **This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The ECT680 Integration course will be revised to better match with the research and project courses.

**Implementation Plan (timeline):** 12-13 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

## 📄 Status Report

### Action Statuses

## MS in Electronics & Computer Tech Outcome Set

### MS in Electronics & Computer Technology Outcomes

#### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

#### ▼ Action: Research

**Action Details:** The MSECT research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

#### **Status** for Research

**Current Status:** In Progress

**Resource Allocation(s) Status:**

**Next Steps/Additional Information:**

#### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

#### ▼ Action: Scholarship

**Action Details:** The research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

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**Status** for Scholarship

**Current Status:** In Progress

**Resource Allocation(s) Status:**

**Next Steps/Additional Information:**

### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

▼ **Action:** Independant work

**Action Details:** The project courses has been revised to better support the student's efforts and reduce the cycle time of the projects; to two semesters maximum.

**Implementation Plan (timeline):** 13-14 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

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**Status** for Independant work

**Current Status:** In Progress

**Resource Allocation(s) Status:**

**Next Steps/Additional Information:**

### 4. ability to orally present the results of their inquiry

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

▼ **Action:** Oral presentation

**Action Details:** The research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

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**Status** for Oral presentation

**Current Status:** In Progress

**Resource Allocation(s) Status:**

**Next Steps/Additional Information:**

**5. acquire, or improve existing, technical knowledge**

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

▼ **Action:** Examination scores

**Action Details:** The course content for the Theory of Electronics Control has been reviewed and revised.

**Implementation Plan (timeline):** 12-13 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

**Status** for Examination scores

**Current Status:** Completed

**Resource Allocation(s) Status:**

**Next Steps/Additional Information:**

**6. apply theoretical knowledge to practical applications**

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

▼ **Action:** Student Projects

**Action Details:** The lack on completion of student project is being address by making attendance in the MS project courses mandatory and requiring an approved project proposal be submitted before an Incomplete grade will be posted for the project course.

**Implementation Plan (timeline):** 12-13 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

**Status** for Student Projects

**Current Status:** Completed

**Resource Allocation(s) Status:**



**Next Steps/Additional Information:**

**7. evaluation and integration of technical knowledge**

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

▼ **Action:** Integration

**Action Details:** The ECT680 Integration course will be revised to better match with the research and project courses.

**Implementation Plan (timeline):** 12-13 cycle

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:**

**Status** for Integration

**Current Status:** In Progress

**Resource Allocation(s) Status:**

**Next Steps/Additional Information:**

**Status Summary**

*No text specified*

**Summary of Next Steps**

*No text specified*

# 2012-2013 Assessment Cycle

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## Assessment Plan

### Outcomes and Measures

#### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

##### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 4. ability to orally present the results of their inquiry

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual  
**Responsible Individual(s):** Program Coordinator

## Assessment Findings

### Finding per Measure

#### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

##### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### Findings for Rubric

**Summary of Findings:** The overall quality of the work is short of the 85% target.

**Results:** Target Achievement: Not Met

**Recommendations :** Rework of ECT698 Research course.

**Reflections/Notes :**

##### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### Findings for Rubric

**Summary of Findings:** Below target.

**Results:** Target Achievement: Not Met

**Recommendations :** This will also be addressed in the rework of the ECT698 course content.

**Reflections/Notes :**

### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

#### Findings for Rubric

**Summary of Findings:** This appears to be case in essentially all work - near 100%

**Results:** Target Achievement: Met

**Recommendations :**

**Reflections/Notes :**

### 4. ability to orally present the results of their inquiry

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

#### Findings for Rubric

**Summary of Findings:** Quality was at the target - 85%

**Results:** Target Achievement: Met

**Recommendations :**

**Reflections/Notes :**

## Overall Recommendations

The course content of ECT698 Research course will be reworked to improve quality of performance.

## Overall Reflection

None.

## Action Plan

### Actions

[ ]

## MS in Electronics & Computer Tech Outcome Set

### MS in Electronics & Computer Technology Outcomes

#### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

##### ▼ Action: Research

###### **This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The MSECT research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 and 14-15 cycles

**Key/Responsible Personnel:** MSECT faculty

**Measures:**

**Resource Allocations:**

**Priority:** Medium

#### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

##### ▼ Action: Scholarship

###### **This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 & 14-15 cycles

**Key/Responsible Personnel:** MSECT faculty

**Measures:**

**Resource Allocations:**

**Priority:** Medium

#### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

*No actions specified*

#### 4. ability to orally present the results of their inquiry

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

*No actions specified*

#### 5. acquire, or improve existing, technical knowledge

The student will acquire, or improve existing, technical knowledge in the field of

*No actions specified*

Electronics, Computer, or  
Automation & Industrial  
Controls Technology.

**6. apply theoretical knowledge to practical applications**

*No actions specified*

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

**7. evaluation and integration of technical knowledge**

*No actions specified*

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

 **Status Report**

**Action Statuses**

**MS in Electronics & Computer Tech Outcome Set**

**MS in Electronics & Computer Technology Outcomes**

**1. proficiency to perform and apply research**

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Action:** Research

**Action Details:** The MSECT research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 and 14-15 cycles

**Key/Responsible Personnel:** MSECT faculty

**Measures:**

**Resource Allocations:**

**Priority:** Medium

**Status for Research**

**Current Status:** In Progress

**Resource Allocation(s) Status:** Work is on-going to bolster the subject matter content of ECT698.

**Next Steps/Additional Information:** Continues thru 13-14 and 14-15 cycle

**2. ability to develop scholarship**

▼ **Action:** Scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

**Action Details:** The research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 & 14-15 cycles

**Key/Responsible Personnel:** MSECT faculty

**Measures:**

**Resource Allocations:**

**Priority:** Medium

**Status for Scholarship**

**Current Status:** In Progress

**Resource Allocation(s) Status:** Work continues on the content re-work of ECT698

**Next Steps/Additional Information:** Continues 13-14 and 14-15 cycles

**3. ability to work independently**

*No actions specified*

The student will effectively demonstrate the ability to work independently.

**4. ability to orally present the results of their inquiry**

*No actions specified*

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

**5. acquire, or improve existing, technical knowledge**

*No actions specified*

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

**6. apply theoretical knowledge to practical applications**

*No actions specified*

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

**7. evaluation and integration of technical knowledge**

*No actions specified*

The student will effectively demonstrate proficiency at the evaluation and

integration of technical  
knowledge and theory.

### **Status Summary**

*No text specified*

### **Summary of Next Steps**

As stated, work continues on the ECT698 Research course



# 2013-2014 Assessment Cycle

## Assessment Plan

### Outcomes and Measures

#### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

##### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 4. ability to orally present the results of their inquiry

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual  
**Responsible Individual(s):** Program Coordinator

## Assessment Findings

### Finding per Measure

## MS in Electronics & Computer Tech Outcome Set

### MS in Electronics & Computer Technology Outcomes

#### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

#### Findings for Rubric

**Summary of Findings:** The overall quality of the research work remains less than the target of 85% scores overall on research paper submissions.

**Results:** Target Achievement: Not Met

**Recommendations :** Continue work or revising ECT698 as planned.

**Reflections/Notes :**

#### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

#### Findings for Rubric

**Summary of Findings:** This is near target but more work is needed.

**Results:** Target Achievement: Not Met

**Recommendations :**

**Reflections/Notes :**

### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

#### Findings for Rubric

**Summary of Findings:** Satisfied

**Results:** Target Achievement: Met

**Recommendations :**

**Reflections/Notes :**

### 4. ability to orally present the results of their inquiry

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

#### Findings for Rubric

**Summary of Findings:** Oral presentations are on average just at the target.

**Results:** Target Achievement: Met

**Recommendations :**

**Reflections/Notes :**

## Overall Recommendations

Work continues on improving the subject matter in the ECT698 course which included more guidance on how to accomplish research, document and present it effectively.

## Overall Reflection

Some progress but more to do in terms of improving scholarship.

## Action Plan

## Actions

### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

##### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

###### ▼ Action: Research

###### **This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The MSECT research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 and continuing to the 14-15 cycle

**Key/Responsible Personnel:** MSECT faculty

**Measures:**

**Resource Allocations:**

**Priority:** Medium

##### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

###### ▼ Action: Scholarship

###### **This Action is associated with the following Findings**

No supporting Findings have been linked to this Action.

**Action Details:** The research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 & continuing to the 14-15 cycle

**Key/Responsible Personnel:** MSECT faculty

**Measures:**

**Resource Allocations:**

**Priority:** Medium

##### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

*No actions specified*

##### 4. ability to orally present the results of their inquiry

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

*No actions specified*

##### 5. acquire, or improve existing, technical knowledge

*No actions specified*

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

**6. apply theoretical knowledge to practical applications**

*No actions specified*

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

**7. evaluation and integration of technical knowledge**

*No actions specified*

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

 **Status Report**

**Action Statuses**

**MS in Electronics & Computer Tech Outcome Set**

**MS in Electronics & Computer Technology Outcomes**

**1. proficiency to perform and apply research**

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Action: Research**

**Action Details:** The MSECT research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 and continuing to the 14-15 cycle

**Key/Responsible Personnel:** MSECT faculty

**Measures:**

**Resource Allocations:**

**Priority:** Medium

**Status for Research**

*No Status Added*

**2. ability to develop scholarship**

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

▼ **Action: Scholarship**

**Action Details:** The research course is being reviewed and will be updated.

**Implementation Plan (timeline):** 13-14 & continuing to the 14-15 cycle

**Key/Responsible Personnel:** MSECT faculty

**Measures:**

**Resource Allocations:**

**Priority:** Medium

**Status** for Scholarship

*No Status Added*

---

**3. ability to work independently**

*No actions specified*

The student will effectively demonstrate the ability to work independently.

---

**4. ability to orally present the results of their inquiry**

*No actions specified*

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

---

**5. acquire, or improve existing, technical knowledge**

*No actions specified*

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

---

**6. apply theoretical knowledge to practical applications**

*No actions specified*

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

---

**7. evaluation and integration of technical knowledge**

*No actions specified*

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

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**Status Summary**

*No text specified*

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## Summary of Next Steps

*No text specified*

# 2014-2015 Assessment Cycle

## Assessment Plan

### Outcomes and Measures

#### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

##### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

##### 4. ability to orally present the results of their inquiry

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%



**Implementation Plan (timeline):** Annual  
**Responsible Individual(s):** Program Coordinator

## Assessment Findings

### Finding per Measure

## MS in Electronics & Computer Tech Outcome Set

### MS in Electronics & Computer Technology Outcomes

#### 1. proficiency to perform and apply research

The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

#### Findings for Rubric

*No Findings Added*

#### 2. ability to develop scholarship

The student will effectively demonstrate the ability to develop scholarship in the ECT field.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

#### Findings for Rubric

*No Findings Added*

#### 3. ability to work independently

The student will effectively demonstrate the ability to work independently.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

**Findings for Rubric**

*No Findings Added*

**4. ability to orally present the results of their inquiry**

The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner.

▼ **Measure:** Rubric  
Direct - Student Artifact

**Details/Description:** Evaluation of major project document, or thesis.

ECT 679; and ECT 697, or ECT 699

**Target:** 85%

**Implementation Plan (timeline):** Annual

**Responsible Individual(s):** Program Coordinator

**Findings for Rubric**

*No Findings Added*


**Overall Recommendations**

*No text specified*

**Overall Reflection**

*No text specified*

 **Action Plan**

 **Status Report**

## 2015-2016 Assessment Cycle

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### Assessment Plan

#### Outcomes and Measures

#### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

##### 5. acquire, or improve existing, technical knowledge

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

▼ **Measure:** examination scores  
Direct - Exam

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Fall 2015

**Responsible Individual(s):** Program Coordinator

▼ **Measure:** Laboratory Assignments  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Fall 2015

**Responsible Individual(s):** Program Coordinator

##### 6. apply theoretical knowledge to practical applications

The student will effectively demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

▼ **Measure:** Laboratory Assignments  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Fall 2015

**Responsible Individual(s):** Program Coordinator

▼ **Measure:** Student Projects  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Fall 2015

**Responsible Individual(s):** Program Coordinator

**7. evaluation and integration of technical knowledge**

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

▼ **Measure:** Class Project  
Direct - Student Artifact

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**Details/Description:** ECT 680  
**Target:**  
**Implementation Plan (timeline):** Fall 2015  
**Responsible Individual(s):** Program Coordinator

 **Assessment Findings**

**Finding per Measure**

**MS in Electronics & Computer Tech Outcome Set**

**MS in Electronics & Computer Technology Outcomes**

**5. acquire, or improve existing, technical knowledge**

The student will acquire, or improve existing, technical knowledge in the field of Electronics, Computer, or Automation & Industrial Controls Technology.

▼ **Measure:** examination scores  
Direct - Exam

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**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)  
**Target:**  
**Implementation Plan (timeline):** Fall 2015  
**Responsible Individual(s):** Program Coordinator

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**Findings for examination scores**

*No Findings Added*

▼ **Measure:** Laboratory Assignments  
Direct - Student Artifact

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**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)  
**Target:**  
**Implementation Plan (timeline):** Fall 2015  
**Responsible Individual(s):** Program Coordinator

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**Findings for Laboratory Assignments**

*No Findings Added*

**6. apply theoretical knowledge to practical applications**

The student will effectively

▼ **Measure:** Laboratory Assignments  
Direct - Student Artifact

demonstrate proficiency to apply theoretical knowledge to practical applications and projects through experiential learning.

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Fall 2015

**Responsible Individual(s):** Program Coordinator

**Findings for Laboratory Assignments**

*No Findings Added*

▼ **Measure:** Student Projects  
Direct - Student Artifact

**Details/Description:** ECT 537, 542, 623, 631, 633, 634, 642, 635, 661, or 663 (those offered that semester)

**Target:**

**Implementation Plan (timeline):** Fall 2015

**Responsible Individual(s):** Program Coordinator

**Findings for Student Projects**

*No Findings Added*

**7. evaluation and integration of technical knowledge**

The student will effectively demonstrate proficiency at the evaluation and integration of technical knowledge and theory.

▼ **Measure:** Class Project  
Direct - Student Artifact

**Details/Description:** ECT 680

**Target:**

**Implementation Plan (timeline):** Fall 2015

**Responsible Individual(s):** Program Coordinator

**Findings for Class Project**

*No Findings Added*

**Overall Recommendations**

*No text specified*

**Overall Reflection**

*No text specified*

 **Action Plan**

 **Status Report**

## 2016-2017 Assessment Cycle

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 **Assessment Plan**

 **Assessment Findings**

## 2017-2018 Assessment Cycle

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 **Assessment Plan**

 **Assessment Findings**

## 2018-2019 Assessment Cycle

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 **Assessment Plan**

 **Assessment Findings**



## 2019-2020 Assessment Cycle

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 **Assessment Plan**

 **Assessment Findings**

# Appendix

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A. **MS in Electronics & Computer Technology Program** (Curriculum Map)

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