Program Outcomes Assessment

MS in Electronics

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<td>Assessment Findings</td>
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General Information (Program Outcomes Assessment)
Standing Requirements

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

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

Curriculum Map

Active Curriculum Maps
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.)
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

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**
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)
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._

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

- **Details/Description:** ECT 680

- **Target:**

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

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

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**Findings** for Class Project

- **Summary of Findings:** All ECT 680 projects were completed during the cycle. The average score was above 90%.

- **Results:** Target Achievement: Met

- **Recommendations:** None.

- **Reflections/Notes:**

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**Overall Recommendations**

_No text specified_

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**Overall Reflection**

_No text specified_

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**Action Plan**

**Actions**

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

**MS in Electronics & Computer Technology Outcomes**

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

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

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**Action:** Research

- **This Action is associated with the following Findings**
  
  No supporting Findings have been linked to this Action.

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

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

- **Key/Responsible Personnel:**

- **Measures:**
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:**

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Program Outcomes Assessment
MS in Electronics
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
3. ability to work independently
The student will effectively demonstrate the ability to work independently.

**Action:** Indepandant 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:

Status for Indepandant 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:
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:**

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**Status Summary**

No text specified

**Summary of Next Steps**

No text specified
## Assessment Plan

### Outcomes and Measures

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

### MS in Electronics & Computer Technology Outcomes

<table>
<thead>
<tr>
<th>Outcome Description</th>
<th>Measure: Rubric (Direct - Student Artifact)</th>
</tr>
</thead>
</table>
| **1. proficiency to perform and apply research** | 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** | 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** | 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** | Details/Description: Evaluation of major project document, or thesis. ECT 679; and ECT 697, or ECT 699  
**Target:** 85% |
### Assessment Findings

#### Finding per Measure

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

**MS in Electronics & Computer Technology Outcomes**

| Measure | Direct - Student Artifact
| --- | ---
| **1. proficiency to perform and apply research** | The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field. |

**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:**

| Measure | Direct - Student Artifact
| --- | ---
| **2. ability to develop scholarship** | The student will effectively demonstrate the ability to develop scholarship in the ECT field. |

**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

<table>
<thead>
<tr>
<th>MS in Electronics &amp; Computer Technology Outcomes</th>
</tr>
</thead>
</table>

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**
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.

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

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**Status Report**

**Action Statuses**

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

<table>
<thead>
<tr>
<th>MS in Electronics &amp; Computer Technology Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. proficiency to perform and apply research</strong></td>
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<tr>
<td>The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field.</td>
</tr>
<tr>
<td><strong>Action:</strong> Research</td>
</tr>
<tr>
<td><strong>Action Details:</strong> The MSECT research course is being reviewed and will be updated.</td>
</tr>
<tr>
<td><strong>Implementation Plan (timeline):</strong> 13-14 and 14-15 cycles</td>
</tr>
<tr>
<td><strong>Key/Responsible Personnel:</strong> MSECT faculty</td>
</tr>
<tr>
<td><strong>Measures:</strong></td>
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<tr>
<td><strong>Resource Allocations:</strong></td>
</tr>
<tr>
<td><strong>Priority:</strong> Medium</td>
</tr>
<tr>
<td><strong>Status</strong> for Research</td>
</tr>
<tr>
<td><strong>Current Status:</strong> In Progress</td>
</tr>
<tr>
<td><strong>Resource Allocation(s) Status:</strong> Work is on-going to bolster the subject matter content of ECT698.</td>
</tr>
<tr>
<td><strong>Next Steps/Additional Information:</strong> Continues thru 13-14 and 14-15 cycle</td>
</tr>
<tr>
<td><strong>2. ability to develop scholarship</strong></td>
</tr>
<tr>
<td><strong>Action:</strong> Scholarship</td>
</tr>
</tbody>
</table>
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

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**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**
   
   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 Electronics, Computer, or Automation & Industrial Controls Technology.

   **No actions specified**

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 actions specified**

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

<table>
<thead>
<tr>
<th>MS in Electronics &amp; Computer Tech Outcome Set</th>
<th>MS in Electronics &amp; Computer Technology Outcomes</th>
</tr>
</thead>
</table>
| 1. proficiency to perform and apply research | **Measure:** Rubric  
Direct - Student Artifact |
| The student will effectively demonstrate proficiency to perform and apply research methodologies to the ECT field. | **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 | **Measure:** Rubric  
Direct - Student Artifact |
| The student will effectively demonstrate the ability to develop scholarship in the ECT field. | **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 |

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| | **Target:** 85%  
**Implementation Plan (timeline):** Annual  
**Responsible Individual(s):** Program Coordinator |

| 4. ability to orally present the results of their inquiry | **Measure:** Rubric  
Direct - Student Artifact |
| The student will effectively demonstrate the ability to orally present the results of their inquiry in a professional manner. | **Details/Description:** Evaluation of major project document, or thesis.  
ECT 679; and ECT 697, or ECT 699 |
| | **Target:** 85% |
## Assessment Findings

### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

<table>
<thead>
<tr>
<th>Measure</th>
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<th>Direct - Student Artifact</th>
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<tr>
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<td>85%</td>
<td>Annual</td>
<td>Program Coordinator</td>
</tr>
<tr>
<td><strong>Measure</strong>: Rubric</td>
<td><strong>Direct</strong>: Student Artifact</td>
<td><strong>Details/Description</strong>: Evaluation of major project document, or thesis.</td>
<td><strong>Target</strong>: 85%</td>
<td><strong>Implementation Plan (timeline)</strong>: Annual</td>
<td><strong>Responsible Individual(s)</strong>: Program Coordinator</td>
<td></td>
</tr>
<tr>
<td><strong>Findings for Rubric</strong></td>
<td></td>
<td></td>
<td><strong>Summary of Findings</strong>: The overall quality of the research work remains less than the target of 85% scores overall on research paper submissions.</td>
<td><strong>Results</strong>: Target Achievement: Not Met</td>
<td><strong>Recommendations</strong>: Continue work or revising ECT698 as planned.</td>
<td><strong>Reflections/Notes</strong>:</td>
</tr>
</tbody>
</table>

| **2. ability to develop scholarship** | | | Evaluation of major project document, or thesis. | 85% | Annual | Program Coordinator |
| **Measure**: Rubric | **Direct**: Student Artifact | **Details/Description**: Evaluation of major project document, or thesis. | **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**
### MS in Electronics & Computer Tech Outcome Set

#### MS in Electronics & Computer Technology Outcomes

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<td><strong>Action</strong>: Research</td>
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Program Outcomes Assessment
MS in Electronics
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**

   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**

   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
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 Electronics, Computer, or Automation & Industrial Controls Technology.

No actions specified

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 actions specified

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

No actions specified

Status Summary

No text specified
Summary of Next Steps

No text specified
## 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 | **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 | **Measure:** Rubric  
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| 4. ability to orally present the results of their inquiry | **Measure:** Rubric  
Direct - Student Artifact |
|-----------------------------------------------------------|--------------------------------------------------|
| Details/Description: Evaluation of major project document, or thesis.  
ECT 679; and ECT 697, or ECT 699 |
| **Target:** 85% |
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
   - **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
   - **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
   - **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

---

**Overall Recommendations**

*No text specified*

**Overall Reflection**

*No text specified*

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**Action Plan**

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**Status Report**
2015-2016 Assessment Cycle

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
**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
**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 examination scores

*No Findings Added*  

**Measure:** Laboratory Assignments
**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*  

6. apply theoretical knowledge to practical applications

The student will effectively

**Measure:** Laboratory Assignments
**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*
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*

---

**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*

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**Overall Recommendations**

*No text specified*

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**Overall Reflection**

*No text specified*

---

**Action Plan**

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**Status Report**
2016-2017 Assessment Cycle

Assessment Plan

Assessment Findings
2017-2018 Assessment Cycle

Assessment Plan

Assessment Findings
2018-2019 Assessment Cycle

Assessment Plan

Assessment Findings
2019-2020 Assessment Cycle

Assessment Plan

Assessment Findings
Appendix

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