## Marquette University
### Learning Assessment Plan

### Electrical and Computer Engineering

**Program:** Electrical and Computer Engineering  
**Degree:** Ph.D.  
**Date Submitted:** April 28, 2006; Revised July 20, 2007

<table>
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<tr>
<th>Program Learning Outcomes</th>
<th>Performance Indicators</th>
<th>Measures</th>
<th>Use of the Information</th>
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<td>Students will be able to:</td>
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</table>
| · Demonstrate mastery and technical expertise in necessary areas of Electrical and Computer Engineering as required by their research program | · Students have successfully completed a set of appropriate courses in key technical/scientific areas impinging on their research  
· Students successfully pass written qualifying exam  
· Student successfully present dissertation proposal to his/her Ph.D. committee  
· Degree to which outcome is demonstrated at the comprehensive exam | · Forms completed at comprehensive exam by the student’s committee  
· Doctoral degree program planning form. Identify the set of courses and approved by faculty advisor and the DGS  
· Distinction level on DQE evaluation form.  
· Elevation of student to Ph.D. candidacy | · DGS collects and reviews forms  
· Committee records on DQE form and forwards to graduate school  
· Graduation audit form |
| · Ability to identify and formulate a research program statement and independently perform original research | · Students present original research proposal to committee  
· Students meet regularly with committee to present and discuss state of research  
· Students successfully defend their original research at the public final defense | · Oral examination form  
· Students’ advisor (together with committee) keeps schedule and track progress  
· Final dissertation and exam form | · Dissertation submitted to graduate school and library |
| · Communicate research results to a scientific audience | · Students give presentation(s) in research seminars  
· Students give presentation(s) at conferences  
· Students write dissertation and present research results at the oral defense exam | · Number of students enrolled in seminar(s)  
· Number of students who present at conference(s)  
· All students pass comprehensive exam and dissertation defense | · Administrative assistant collects seminar information from instructors. Annual review by graduate committee  
· Students submit activity report to DGS to be reviewed by graduate committee  
· Graduate school (see completed final form) |
| · Clearly identify contribution to a field in Electrical and Computer Engineering | · Contribution(s) identified in dissertation document  
· Publish work in archival peer- | · Number of students who author or co-author journal articles  
· Students pass final public | · Students submit activity report  
· Forms to graduate school |
| reviewed journal(s) | dissertation defense |