Stevens Institute of Technology

Howe School of Technology Management

**AACSB
ASSURANCE OF LEARNING PLAN**

Learning Goal Assessment Guide

**Doctor of Philosophy in Technology Management**

 **(Ph.D.)**

**LEARNING GOAL # 2**

**Ph.D. graduates master the core knowledge and research tools in their major field of study.**

**Responsibility: Thomas Lechler**

December 2014

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# Learning Goal Assessment Guide

This guide documents the assessment process for one of the three learning goals in the Ph.D. program. The assessment process is done in accordance of the Assurance of Learning (AoL) plan for the Ph.D. program.

# Learning Goals

The Learning Goals for the Ph.D. program are listed below. The first learning goal covers general skills and is common across all graduate programs within the Howe School.

1. Students can communicate effectively in written and oral presentations and structure research papers.
2. Ph.D. graduates master the core knowledge and research tools in their major field of study.
3. Ph.D. students demonstrate capacity to identify and develop a research project for their dissertation in a timely fashion.

# Learning Goal Introduction

This guide covers Learning Goal #2 for the Ph.D. program: Ph.D. graduates master the core knowledge and research tools in their major field of study.

**This goal is assessed at the end of every semester**. This goal requires students to publish peer reviewed articles in their respective research field.

**There is one primary method of assessment:** Eachstudent has to submit a progress and activity report at the end of every semester.The assessment reviews the submitted activity reports.

**To complete this requirement successfully, students need to** have mastered the core knowledge and research tools in their field of study. In addition they should be able to innovate by combining different knowledge areas offered in the program.

# Learning Objectives and Traits

The following table shows the objectives and traits to assess goal 2 of the PH.D. program.

**Learning Goal #2: Ph.D. graduates master the core knowledge and research tools in their major field of study.**

|  |  |
| --- | --- |
| **PhD - 2** | **Learning Goal, Objectives and Traits** |
| **GOAL[Lechler]** | **Our Ph.D. graduates master the core knowledge and research tools in their major field of study.** |
| **Objective 1:** | *Students are able to write competitive research papers.* |
| **Traits** |   |
| Trait 1: | Number of publications at graduation |

# Rubrics

|  |  |
| --- | --- |
| **Objective 1** | *Students are able to write competitive research papers.* |
|   | **Trait** | **Poor** | **Good** | **Excellent** | **Score** |
|   | **Value** | **0** | **2** | **>2** |  |
| Trait 1: | Number of publications at graduation. |  |  |  |   |
| **Criterion:** | **Does not meet expectations: 0; Meets: 2; Exceeds: 3** |   |   |   |   |

# Assessment Process

All Ph.D. students will be assessed every semester.

|  |  |  |  |
| --- | --- | --- | --- |
| **PhD LEARNING GOAL 2** | **Where and when measured?** | **How measured?** | **Criterion** |
| 2. Ph.D. graduates master the core knowledge and research tools in their major field of study.  | To graduate each student is required to:1. publish one peer reviewed article2. submit one article to a peer reviewed journal.Every semester | Sampling: All PhD students.Activity report. | All students (100%) have to publish at least one article in a peer reviewed journal. |

Every student has to submit at the end of every semester an activity report (see appendix). This report is the basis for the collection of the necessary data.

# Results of Learning Goal Assessment

The results of the initial learning goal assessments carried out to date are included below.

**Explanation**

The learning goal #2 has one learning objective and is measured using the rubric “number of publications”.

The assessment is conducted by classifying students into the three categories:

- Does not meet expectations
- Meets expectations
- Exceeds expectations

The person doing the assessment provides explanatory comments and recommendations on the bottom of the Results Summary Sheet. The recommendations improve content or policies of the program.

# Results of Assessment: Spring 2013

**LEARNING GOAL # 2: Our Ph.D. graduates master the core knowledge and research tools in their major field of study.**

**LEARNING OBJECTIVE # 1: Students are able to write competitive research papers.**

**ASSESSMENT DATE: May 22, 2013 ASSESSOR: Ph.D. Program Committee**

**NO. OF STUDENTS TESTED: 19**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **FT/ PT** | **Years in Program** | **PRJ** | **Procs** | **Bk Chap** | **Books** | **Other****(Working****Papers)** |
| **Aleman Lopez Elias** | **FT** | 1 | **0** | **0** | 0 | 0 | **4** |
| **Bao Jin** | **FT** | 3 | **0** | **3** | 0 | 0 | **2** |
| **Chen Jingyi** | **FT** | 2 | **0** | **1** | 0 | 0 | **2** |
| **Chen Rongjuan** | **FT** | 4 | **0** | **1** | 0 | 0 | **3** |
| **Gao Ting** | **FT** | 4 | **1** | **3** | 0 | 0 | **1** |
| **Genc Yegin** | **FT** | 4 | **1** | **2** | 0 | 0 | **2** |
| **Goren Esra** | **PT** | 4 | **0** | **0** | 0 | 0 | **1** |
| **Han Yue** | **FT** | 2 | **0** | **0** | 0 | 0 | **0** |
| **Jiang Gechen** | **FT** | 1 | **0** | **0** | 0 | 0 | **2** |
| **Kules Stanley** | **PT** | 2 | **0** | **0** | 0 | 0 | **0** |
| **Kyriakou Charalampos** | **FT** | 2 | **0** | **1** | 0 | 0 | **3** |
| **Li Huaye** | **FT** | 1 | **0** | **2** | 0 | 0 | **2** |
| **Ozturk Pinar** | **FT** | 1 | **0** | **0** | 0 | 0 | **0** |
| **Ren Jie** | **FT** | 4 | **0** | **3** | 0 | 0 | **3** |
| **Ren Yong** | **FT** | 4 | **1** | **1** | 0 | 0 | **1** |
| **Topic Milos** | **PT** | 2 | **0** | **0** | 0 | 0 | **2** |
| **Wang Kai** | **FT** | 3 | **0** | **0** | 0 | 0 | **3** |
| **Yang Siwen** | **FT** | 1 | **0** | **0** | 0 | 0 | **0** |
| **Total** |  |  | **3** | **17** | 0 | 0 | **31** |

|  |  |
| --- | --- |
| **Objective 1** | *Students are able to write competitive research papers.* |
|   | **Trait** | **Poor** | **Good** | **Excellent** | **Score** |
|   | **Value** | **0** | **2** | **>2** |  |
| Trait 1: | Number of publications at graduation. |  |  |  |   |
| **Criterion:** | **Does not meet expectations: 0-1; Meets: 2; Exceeds: 3** |   |   |   |  N.A. |

**COMMENTS:** No student graduated in spring 2013. Some students just finished their first year and do not have a publication. Only 3 out of the 19 students actually published a paper so far in PMJ, 2012, IJBIR, 2011, Applied Optics, 2010.

**REMEDIAL ACTIONS:** No actions discussed for the coming year**.**

# Specific Steps Taken in Spring 2013

N.A. (no student graduated)

# Outcomes: PhD Learning Goal # 2 after 1 Rounds of Assessment

N.A. (no student graduated). All student publications are tracked.

# Results of Assessment: Spring 2014

**LEARNING GOAL # 2: Our Ph.D. graduates master the core knowledge and research tools in their major field of study.**

**LEARNING OBJECTIVE # 1: Students are able to write competitive research papers.**

**ASSESSMENT DATE: July 1st, 2014 ASSESSOR: Ph.D. Program Committee**

**NO. OF GRADUATED STUDENTS: 4**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **FT/ PT** | **Years in Program** | **PRJ** | **Procs** | **Bk Chap** | **Books** | **Other****(Working****Papers)** |
| **Chen Rongjuan** | **FT** | 5 | **0** | **2** | 0 | 0 | **3** |
| **Gao Ting** | **FT** | 5 | **1** | **3** | 0 | **1** | **1** |
| **Genc Yegin** | **FT** | 5 | **1** | **7** | 0 | 0 | **2** |
| **Ren Jie** | **FT** | 5 | **1** | **3** | 0 | 0 | **3** |
| **Total** |  |  | **3** | **17** | 0 | **1** | **31** |

Only peer reviewed publications that were published while the students were enrolled in the program are counted.

|  |  |
| --- | --- |
| **Objective 1** | *Students are able to write competitive research papers.* |
|   | **Trait** | **Poor** | **Good** | **Excellent** | **Score** |
|   | **Value** | **0** | **2** | **>2** |  |
| Trait 1: | Number of publications at graduation. | **-** | **1** | **3** | **-** |
| **Criterion:** | **Does not meet expectations: 0-1; Meets: 2; Exceeds: 3** | **0** | **1** | **9** | **2.75** |

**COMMENTS:** Four students graduated in May 2014 (see publications in appendix).

**REMEDIAL ACTIONS:** No actions discussed for the coming year**.**

# Specific Steps Taken in Spring 2014

A change of the mid-term examination is discussed. This will be implemented in the fall semester 2014 to support the publication of a research paper.

# Results of Assessment: Fall 2014

**LEARNING GOAL # 2: Our Ph.D. graduates master the core knowledge and research tools in their major field of study.**

**LEARNING OBJECTIVE # 1: Students are able to write competitive research papers.**

**ASSESSMENT DATE: December 31st, 2014 ASSESSOR: Ph.D. Program Committee**

**NO. OF GRADUATED STUDENTS: 4**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **FT/ PT** | **Years in Program** | **PRJ** | **Procs** | **Bk Chap** | **Books** | **Other****(Working****Papers)** |
| **Burak Ayata** | **PT** | 9 | **0** | **0** | 0 | 0 | **0** |
| **Total** |  |  | **0** | **0** | 0 | **0** | **0** |

Only peer reviewed publications that were published while the student was enrolled in the program are counted.

|  |  |
| --- | --- |
| **Objective 1** | *Students are able to write competitive research papers.* |
|   | **Trait** | **Poor** | **Good** | **Excellent** | **Score** |
|   | **Value** | **0** | **2** | **>2** |  |
| Trait 1: | Number of publications at graduation. | **-** | **0** | **0** | **-** |
| **Criterion:** | **Does not meet expectations: 0-1; Meets: 2; Exceeds: 3** | **0** | **0** | **0** | **0** |

**COMMENTS:** One student graduated in December 2014.

**REMEDIAL ACTIONS:** No actions discussed for the coming year**.**

# Specific Steps Taken in Spring 2015

A change of the mid-term examination is discussed. This will be implemented in the fall semester 2014 to support the publication of a research paper.

# Outcomes: PhD Learning Goal # 2 after 2 Rounds of Assessment

|  |  |
| --- | --- |
|  | Objective 1# Publications |
| SPRING 2013 | N.A. |
| SPRING 2014 | Good |
| FALL 2014 | Poor |

**COMMENTS:** It is too early to draw conclusion. However, current students in their third and fourth year have published peer reviewed research papers.

**REMEDIAL ACTIONS:** No actions discussed for the coming year since a new qualifying policy will be introduced**.**

# CLOSE LOOP PROCESS – CONTINUOUS IMPROVEMENT RECORD

Several policies were implemented or are discussed and close to implementation to improve a competitive publication output.

# APPENDIX – Publications Spring 2014

Rongjuan Chen (5th Year)

Chen, R. & Sakamoto, Y. (2013). Perspective Matters: Sharing of Crisis Information in Social Media. In Proceedings of Hawaii International Conference on System Science.

Chen, R. & Sakamoto, Y. (2014). Feelings and Perspective Matter: Sharing of Crisis Information in Social Media. In Proceedings of Hawaii International Conference on System Science.

Ting Gao (5th Year)

Books

Thomas G. Lechler, Ting Gao and Barbara H. Edington (2013). The Silver Lining of Unknown-Unknowns. Newtown Square, PA: Project Management Institute.

Refereed Journal Articles

Thomas G. Lechler, Barbara H. Edington, and Ting Gao (2012). Challenging Classic Project Management: Turning Project Uncertainties Into Business Opportunities. Project Management Journal, 43(6), 59-69.

Refereed Conference Proceedings

Thomas G. Lechler and Ting Gao, “Determinants of Client Expectation Alignment and Its Mediators in Explaining Project Performance: An Empirical Study”, Proc. International Research Network On Organizing By Projects 2013, Oslo, Norway, June 2013

Thomas G. Lechler and Ting Gao, “Explaining Project Success with Client Expectation Alignment: An Empirical Study”, Proc. PMI Research and Education 2012, Limerick, Ireland, July 2012

Thomas G. Lechler, Ting Gao, David Keeney and Barbara H. Edington, “Exploring Contextual Conditions of Project Uncertainties and Project Value Opportunities”, Proc. PMI Research and Education 2012, Limerick, Ireland, July 2012

Yegin Genc (5th Year)

Genc, Yegin. "Exploratory search with semantic transformations using collaborative knowledge bases." *Proceedings of the 7th ACM international conference on Web search and data mining*. ACM, 2014.

Genc, Y., Nickerson, J. 2013. “Exploring Content with Semantic Transforms using Collaborative Knowledge Bases” Workshop on Information in Networks WIN2013

Genc, Y., Mason, W., and Nickerson, J. 2013. “Classifying short messages using collaborative knowledge bases: Reading Wikipedia to understand Twitter” Workshop on Making Sense of Micro- posts at World Wide Web Conference WWW2013

Genc, Y., Mason, W., Lennon E.A., and Nickerson, J. 2013. “Building Ontologies from Collabo- rative Knowledge Bases to Search and Interpret Multilingual Corpora ” Workshop on Building and Using Comparable Corpora (BUCC) at the Association for Computational Linguistics ACL2013

Altuger-Genc, G., and Genc, Y., 2013. “Can We Make Students Lifelong Learners Through Social Networks?” Computers in Education Journal, January March 2013 Issue

Genc, Y., Mason, W., and Nickerson, J. 2012. “Semantic Transforms Using Collaborative Knowl- edge Bases” Workshop on Information in Networks WIN2012

Genc, Y., Sakamoto, Y., & Nickerson, J. 2011. “Discovering Context: Classifying Tweets through a Semantic Transform Based on Wikipedia” Proceedings of the Human Computer Integration In- ternational HCII2011

Morabito, J., Stohr E., and Genc, Y. 2011. “Enterprise Intelligence: A Case Study and the Future of Business Intelligence.” IJBIR 2.3

Jie Ren (5th Year)

Refereed Publications

Ren, J., Nickerson, J. V., Mason, W., Sakamoto, Y. and Graber, B. Increasing the Crowd’s Capacity to Create: How Alternative Generation Affects the Diversity, Relevance and Effectiveness of Generated Ads, ***Decision Support Systems***. Special Issue on Social Decision Making and Crowdsourcing (In Press). Available online: http://dx.doi.org/10.1016/j.dss.2014.05.009

Refereed Proceedings

Ren, J., and Nickerson, J. V. (2014). Online Review Systems: How Emotional Language Drives Sales, ***Proceedings of the 20th Americas Conference on Information Systems***, Aug. 7-8, Savannah, GA.

Ren, J., and Nickerson, J. V. (2013). Examining the Relationship Between Online Review Sentiment and Sales, ***Workshops of Information Networks***, Oct. 4-5, NYC, NY

Ren, J. (2011). Who is More Creative, Experts or the Crowd? ***Proceedings of the 17th Americas Conference on Information Systems***, Aug. 4-7, Detroit, MI.

Ren, J. (2011). Exploring the Process of Web-based Crowdsourcing Innovation, ***Proceedings of the 17th Americas Conference on Information Systems***, Aug. 4-7, Detroit, MI.

Lechler, T. and Ren, J. (2011), Factors Influencing Ex Ante Perception of Innovation Radicalness: An Experimental Design, ***Proceedings of PICMET ‘11***, July 31-Aug 4, Portland, OR.

# APPENDIX – Activity Report

|  |  |
| --- | --- |
| official-logo-clear-bkg | Stevens Institute of TechnologyCastle Point on HudsonHoboken, NJ 07030-5991 |

**Howe School Doctoral Activity Report**

|  |  |
| --- | --- |
| Student Name:  | Advisor Name:  |
| Student Identification No.: \_\_\_\_\_\_-\_\_\_\_-\_\_\_\_\_\_\_\_ |
| Major/Concentration:  |

AREA OF DOCTORAL RESEARCH/ WORKING TITLE OF DISSERTATION:

Activity for: Fall Spring Summer 20 \_\_\_\_

Please list your learning and research activities of the current semester, include preparations for research papers and conferences, passed exams, meetings with the Dissertation Advisory Committee etc.:

|  |  |
| --- | --- |
| Courses taken this period | Grade |
|  |  |
|  |  |
|  |  |
| Qualifying Exams: |  |  |  |
| Dissertation: | Proposal | Defense |
| Papers: | Working Papers | Conference | Proceedings | Journal |
| Research Plan for next semester: |  |
| Overall Self-Evaluation(Satisfied with progress) |  |

Other comments:

Please list your learning and research objectives for the coming semester: include preparations for research papers and conferences, exams etc.:

Please attach your updated CV

STUDENT SIGNATURE DATE

|  |  |  |
| --- | --- | --- |
| Advisor Evaluation: | Satisfactory | Unsatisfactory |

ADVISOR SIGNATURE DATE

(OVER)

INSTRUCTIONS

TO THE STUDENT:

Please list in the activity report all learning and research activities.

1. Which courses have you finished?
2. Have you passed any exams?
3. Have you started to work on your dissertation topic? What have you accomplished?
4. Have you prepared a conference paper or a journal article? To which conference or journal have you submitted?
5. What are your learning and research objectives for the coming semester? Which courses do you plan to take? Do you plan to write a research paper? Do you plan to finish your dissertation proposal?
6. Have you met with members of your dissertation advisory committee?
7. If you have the status of “doctoral candidate” you need to fill out the DAR (Doctoral Activity Report) form. Please use your progress report as the basis for the DAR.
8. Please sign your report and discuss it with your advisor.

TO THE RESEARCH ADVISOR:

Please discuss the activity report with your advisee.

1. Please specify with the student the objectives for the next semester.
2. Please co-sign the report and give a final evaluation.
3. If your advisee has the status of doctoral candidate please sign the Doctoral Activity Report form.
4. Please submit the progress report and if applicable the DAR to the Howe School Ph.D. program director.
5. You will be invited to a review meeting with the Ph.D. program committee.