Stevens Institute of Technology

School of Business

**AACSB  
ASSURANCE OF LEARNING PLAN**

Learning Goal Assessment Guide

**Doctor of Philosophy in Financial Engineering**

**(Ph.D.)**

**LEARNING GOAL # 3**

**Ph.D. graduates are able to effectively deliver academic courses in a university environment.**

**Responsibility: Ph.D. Program Director**

May 31, 2019

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# Learning Goal Assessment Guide

This guide documents the assessment process for Goal 3 of the three learning goals in the Ph.D. program. The assessment process is processed in accordance of the Assurance of Learning (AoL) plan for the Ph.D. program.

# Learning Goals

The Ph.D. program has defined the following three Learning Goals.

* Ph.D. graduates can effectively communicate research in oral presentations.
* Ph.D. graduates will have sufficiently mastered the core knowledge and tools needed to conduct original research in a timely manner.
* Ph.D. graduates are able to effectively deliver academic courses in a university environment.

# Learning Goal Introduction

This guide covers Learning Goal 3 for the Ph.D. program:

* Ph.D. graduates are able to effectively deliver academic courses in a university environment.

**This goal is assessed at the end of every academic course a Ph.D. student has taught**. This goal requires students to achieve high average scores for the course and teacher evaluations.

**There is one primary method of assessment:** The assessment center of Stevens is conducting the course assessments.

**To complete this requirement successfully, students should ideally** receive course and instructor scores above an average of 3.0 (out of max. of 4.0) per course taught.

# Learning Objectives and Traits

The following table shows the objectives and traits to assess goal 3 of the Financial Engineering Ph.D. program.

**Learning Goal # 3: Ph.D. graduates are able to effectively deliver academic courses in a university environment.**

The goal is to prepare students for an academic career. The process for preparing the students to teach effectively is organized in several steps to assure a seamless transition. It is manifested in the teaching policy of the Ph.D. program.

|  |  |
| --- | --- |
| **PhD - 3** | **Learning Goal, Objectives and Traits** |
| **GOAL [Yang]** | **Ph.D. graduates are able to effectively deliver academic courses in a university environment.** |
| **Objective 1:** | *Students will be able to effectively deliver a course in their area of expertise.* |
| **Traits** |  |
| Trait 1: | Course Evaluation |
| Trait 2: | Teacher Evaluation |

# Rubrics

Rubric: Course-Teacher-Evaluation

|  |  |  |
| --- | --- | --- |
| **Objective 1** | *Students will be able to effectively deliver a course in their area of expertise.* | |
| **Trait** |  | **Mean Evaluations** |
| Trait 1 | Overall the quality of the course was excellent. |  |
| Trait 2 | Overall the instructor was an effective teacher. |  |
|  | | **Does not meet expectations: 0 – 2.49; Meets: 2.5-3.49; Exceeds: 3.5 – 4.0 Total Score:** |  |

# Assessment Process

All Ph.D. students will be assessed who teach an academic course.

|  |  |  |  |
| --- | --- | --- | --- |
| **PhD LEARNING GOAL 3** | **Where and when measured?** | **How measured?** | **Criterion** |
| 3. Ph.D. graduates are able to effectively deliver academic courses in a university environment. | Every academic year | Sampling: All PhD students.  Course/teacher evaluations | Achieve a mean course & instructor evaluation score of at least 3.0 out of max 4.0. |

Every teacher receives a teaching evaluation for a specific course when a course is finished. The course evaluation 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 #3 has one learning objective and is measured using the rubric “Course-Teacher-Evaluation”.

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: FALL 2018

**LEARNING GOAL # 3: Ph.D. graduates are able to effectively deliver academic courses in a university environment.**

**LEARNING OBJECTIVE # 1: Students will be able to effectively deliver a course in their area of expertise.**

**ASSESSMENT DATE: August, 2018 ASSESSOR: Ph.D. Program Director**

**NO. OF STUDENTS TESTED: 5**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Objective 1** | | *Students will be able to effectively deliver a course in their area of expertise.* | | | |
| **Trait** | |  | | **Mean Evaluations** | |
| Trait 1 | | Overall the quality of the course was excellent. | | 3.48 | |
| Trait 2 | | Overall the instructor was an effective teacher. | | 3.23 | |
|  | | **Does not meet expectations: 0 – 2.49; Meets: 2.5-3.49; Exceeds: 3.5 – 4.0 Total Score:** | | Not Meet: 0; Meets: 4; Exceeds: 1 | |

**Meets expectations.**

The following table document the students sampled during this period of assessment. These assessments were conducted through Stevens Teaching Assessment Center.

**COMMENTS:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Course Section** | **Credits** | **Teacher Evaluation** | **Course Evaluation** |
| Saud Al Mahdi | FE511A, FE511CA, FE511B | 3 | 3.66 | 3.83 |
| Ziwen Ye | FE515A, FE515B | 2 | 3.42 | 3.53 |
| Dan Wang | FE 520 | 2 | 3.39 | 3.65 |
| Xingjia Zhang | FE513A, FE513B | 2 | 2.75 | 3.25 |
| Sebastian Tudor | FE522A, FE522B | 2 | 2.91 | 3.14 |
|  |  |  |  |  |
|  |  | Average | 3.23 | 3.48 |

There are other 7 students who served as TAs to various FE courses. These students are Hongkai Cao, Zhaokun Cai, Chenjie Shao, Dongxu Li, Yangyang Yu, Mingzhe Liu, Jiacheng Fan. The assessment of their performance are all satisfactory by the instructors they supported. His averages are used to calculate the overall average.

**REMEDIAL ACTIONS:** Each individual student was specifically set a deadline for the proposal defense**.**

# Specific Steps Taken in FALL 2018

Provided TA training for all incoming PhD students at the beginning of the 2017-2018 academic year by the designated FE program faculty members.

# Results of Assessment: Spring 2019

**LEARNING GOAL # 3: Ph.D. graduates are able to effectively deliver academic courses in a university environment.**

**LEARNING OBJECTIVE # 1: Students will be able to effectively deliver a course in their area of expertise.**

**ASSESSMENT DATE: June, 2019 ASSESSOR: Ph.D. Program Director**

**NO. OF STUDENTS TESTED: 5**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Objective 1** | | *Students will be able to effectively deliver a course in their area of expertise.* | | | |
| **Trait** | |  | | **Mean Evaluations** | |
| Trait 1 | | Overall the quality of the course was excellent. | | 3.67 | |
| Trait 2 | | Overall the instructor was an effective teacher. | | 3.31 | |
|  | | **Does not meet expectations: 0 – 2.49; Meets: 2.5-3.49; Exceeds: 3.5 – 4.0 Total Score:** | | Not Meet: 0; Meets: 4; Exceeds: 1 | |

**Meets expectations.**

The following table documents the students who taught one or two sections of a course independently as an instructor during this period of assessment. These assessments were conducted through Stevens Teaching Assessment Center.

**COMMENTS:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Course Section** | **Credits** | **Teacher Evaluation** | **Course Evaluation** |
| Saud Al Mahdi | FE511A, FE511B | 3 | 3.71 | 3.83 |
| Ziwen Ye | FE515A, QF202 | 2 | 3.38 | 3.65 |
| Dan Wang | FE 520A | 2 | 3.35 | 3.55 |
| Xingjia Zhang | FE513A, FE513B | 3 | 2.82 | 3.53 |
| Thiago Winkler | FE522A | 3 | 3.31 | 3.78 |
|  |  |  |  |  |
|  |  | Average | 3.31 | 3.67 |

There are other 7 students who served as TAs to various FE courses. These students are Hongkai Cao, Zhaokun Cai, Chenjie Shao, Dongxu Li, Yangyang Yu, Mingzhe Liu, Jiacheng Fan. The assessment of their performance are all satisfactory by the instructors they supported. His averages are used to calculate the overall average.

**REMEDIAL ACTIONS:** Each individual student was specifically set a deadline for the proposal defense**.**

# Specific Steps Taken in SPRING 2019

Provided TA training for all incoming PhD students at the beginning of the 2018-2019 academic year by the designated FE program faculty member.

# Outcomes: PhD Learning Goal # 3 after 2 Rounds of Assessment

In the 2008 fall semester, there were 5 students assessed during this period met the teaching requirements. One of these five students exceeded the expectation. The average score for teacher evaluation is 3.23, and the average score for the course content is 3.48.

In the 2019 spring semester, all the 5 students assessed during this period met the teaching requirements. One of these five students exceeded the expectation, and the other four met the expectation. The average score for teacher evaluation is 3.31, and the average score for the course content is 3.68. Both scores showed an increase from the previous assessment period (Fall 2018).

# Close Loop Process – Continuous Improvement Record

**Close Loop Process - Continuous Improvement Record Goal 3**

**Program:** Ph.D. in Financial Engineering

**Goal 3:** Ph.D. graduates are able to effectively deliver academic courses in a university environment.

**Goal Owner:** Ph.D. Program Director

**Where Measured:** At the end of the academic year on the program level.

**How Measured:** **Sampling:** Students have to submit a progress and activity report at the end of every semester.

**Description:** Students finishing their third year should ideally have defended their dissertation proposals.

**Closing the Loop: Actions taken on specific objectives**

|  |  |
| --- | --- |
| **Objective 1** | *Improve overall student experience as a course instructor* |
| **When**  **Assessed** | ***The end of the 2018 fall semester.*** |
| **Remedial**  **Action** | *N.A* |
| **Outcome from Previous assessment:** | First time assessment, and there is no comparison. |
| **When**  **Assessed** | ***The end of the 2019 spring semester.*** |
| **Remedial**  **Action** | *Communicated the AOL goal expectations to the students.* |
| **Outcome from Previous assessment:** | Observed the improvement of the 5th and 6th year students from the previous assessment period. |