Stevens Institute of Technology

School of Business

**AACSB  
ASSURANCE OF LEARNING**

**Ph.D. in Financial Engineering**

**LEARNING GOAL # 1**

**PhD-1: Ph.D. graduates can effectively communicate research in oral presentations.**

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

**NEW DOCUMENTATION AFTER CHANGE IN 2018**

June 2019

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# Learning Goal Assessment Guide

This guide documents the assessment process for Goal 1 of the three learning goals in the Financial Engineering 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 FE 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.

# INTRODUCTION: LEARNING GOAL #1

**Ph.D. Goal 1: Ph.D. graduates can effectively communicate research in oral presentations.**

*Objective 1: Students will be able to deliver oral presentations effectively.*

A major educational objective of the School of Business education is to ensure that all of our graduates have effective written and oral communications skills.

The communications learning goal is assessed using the learning objectives, traits and rubrics as described in Sections 2 and 3 of this report.

To support this goal across the university, Stevens has established a Writing and Communications Center (see <http://www.stevens.edu/cal/wcc>.) This website is intended for use by:

1. Instructors wishing to help students improve their written and oral skills.
2. Students seeking information on School of Business communication skill requirements and the resources that are available at Stevens to help them meet these requirements.
3. Students seeking guidance on issues ranging from basic grammatical skills to the required format of master and PhD theses.

# LEARNING OBJECTIVES AND TRAITS

The following table outlines learning objective 1 and its corresponding traits for the School’s oral communications skill assessment:

|  |  |
| --- | --- |
| **Objective 1:** *Students will be able to deliver oral presentations effectively.* | |
| **Traits** |  |
| Trait 1: | Organization and logic |
| Trait 2: | Voice and body language |
| Trait 3: | Use of slides to enhance communication |
| Trait 4: | Ability to answer questions |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Presentation Rubric**  *Students will be able to deliver oral presentations effectively.* | | | | |
| **Trait** | **Poor (0)** | **Good (3)** | **Excellent (5)** | **Score** |
| **Trait 1:  Organization & Logic** | Fails to introduce topic; no evidence of or poor logical flow of topic. | Prepares listeners for sequence and flow of topic. Loses place occasionally but flow and structure are still clear. | Engages listeners with overview, guides listeners through connections between sections, and alerts audience to key details and concepts. |  |
| **Trait 2: Voice Quality & Body Language** | Cannot be heard or understood well due to volume, mumbling, speed, monotone delivery, and/or heavily accented English.  Turns away from audience or uses distracting gestures, such as pacing or tugging clothing. Speaker seems stiff, awkward or uncomfortable. Little eye contact. | Clear delivery with well-modulated voice. Displays some confidence and enthusiasm, but may also contain flatter periods or sound overly rehearsed.  Speaker is relaxed in front of the room and keeps distracting movements and gestures to a minimum. Generally faces audience and makes eye contact. | Exemplary delivery, with a voice that sounds fully engaged, conveys enthusiasm and confidence, and relates to the audience well.  Speaker’s body language is superb and fully engages the room. Strong, consistent eye contact to the entire audience. Uses confident gestures to underscore key verbal points. |  |
| **Trait 3**  **Use of slides to enhance communication** | Misspelled, too busy, too much text, too many slides for allotted time, and/or poor use of graphics like charts. | Slides are readable, containing a reasonable amount of material per slide. Good use of graphics or illustrations. | Slides are well written/designed, engaging to the audience, and used as support to verbal content presentation. |  |
| **Trait 4**  **Ability to answer questions** | Transitions are awkward or non-existent. Speakers go over time limits. Answers are disorganized or non-responsive. | Transitions are smooth. Speakers generally stay within time limits. Speakers respond to questions well and provide sufficient response. | Transitions are professional and very smooth. Speakers respond convincingly and address all aspects of question. |  |
| **Does not meet expectations: 0 – 12; Meets: 13-17; Exceeds: 18-20 Total Score:** | | | |  |

# ASSESSMENT PROCESS

|  |  |  |
| --- | --- | --- |
| **Where & when measured?** | **How measured?** | **Criterion** |
| Students must present once either their own research or review of others’ research as part of the FE Ph.D. Colloquium every semester in the school.  The qualifying exam early in fall of 2rd year requires students to pass both a written exam and an oral exam. Students who fail either part of the exam will be automatically removed from the program. | Students will be evaluated and given feedback immediately during the colloquium presentation by the leading faculty members for both presentation and content.  The qualifying exams by an examining faculty committee will evaluate both the written quality of the research statements and the presentation quality of the oral exam.  Sampling: All PhD students | FE Ph.D. Colloquium presentations will be judged by clarity of the presentation, and correctness of the technical content. The presentation rubrics from above table are used consistently. Summary will be reported in the Ph.D. Activity Report each semester.  For the qualifying exams, the examination committee members will vote on both the written and oral exams. A vote can be either a Pass or a Fail. If there are more than one Fail votes in either part, the student automatically fails the entire exam. The feedback is provided by the examination committee in the qualifying report. |

The FE PhD program assesses the communication learning skills of all students each semester through the required FE PhD Colloquium. Students need to attend at minimum 6 semesters of the PhD Colloquium.

In addition, the qualifying examination committee will evaluate the presentation of the students. And results and assessment will be provided on the qualifying examination report/form.

# RESULTS OF LEARNING GOAL ASSESSMENT – INTRODUCTION

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

**Explanation**

Each learning goal has a number of learning objectives, and performance on each objective is measured using a rubric that, in turn, contains a number of desired “traits.” Students are scored individually on each trait.

The grading sheets for each student are used to develop a Summary Results Sheet for each learning goal objective. A selection of these summaries is included below.

The first table in the Summary Results Sheet for a learning objective/trait gives the counts of students falling in each of the three categories:

* Does Not Meet Expectations
* Meets Expectations
* Exceeds Expectations

The right-hand column in the table is used to record the average score of the students on each trait. This table provides an indication of the relative performance of students on each trait.

The second table on each sheet provides the counts of students who fall in each of the above three categories for the overall learning objective.

The person doing the assessment provides explanatory comments and recommendations on the bottom of the Results Summary Sheet. The recommendations improve content or pedagogy changes for the next time the course is given.

# RESULTS OF ASSESSMENT: FALL 2018

**LEARNING GOAL #1:***Ph.D. graduates can effectively communicate research in oral presentations.*

**LEARNING OBJECTIVE #1:***Students will be able to deliver oral presentations effectively.*

**ASSESSMENT DATE:***Fall 2018*

**ASSESSOR: Steve Yang**

**NUMBER OF STUDENTS: 13 students**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Student Name** | **Trait 1** | **Trait 2** | **Trait 3** | **Trait 4** | **Total** |
| Sebastian Tudor | **5** | **5** | **5** | **5** | **20** |
| Ziwen Ye | **5** | **5** | **5** | **5** | **20** |
| Yunfan Zhu | **3** | **3** | **3** | **3** | **12** |
| Jinhyoung Kim | **5** | **4** | **4** | **5** | **18** |
| Jiacheng Fan | **4** | **4** | **3** | **5** | **16** |
| Yangyang Yu | **4** | **4** | **5** | **4** | **17** |
| Stavros Tsarpalis | **4** | **5** | **4** | **5** | **18** |
| Thiago Winkler | **5** | **5** | **4** | **4** | **18** |
| Zhaokun Cai | **5** | **4** | **5** | **5** | **19** |
| Mingzhe Liu | **4** | **3** | **4** | **4** | **15** |
| Xingjia Zhang | **5** | **4.5** | **5** | **5** | **19.5** |
| Jeffrey Mo | **5** | **5** | **5** | **4.5** | **19.5** |
| Nils Bundi | **5** | **5** | **4** | **5** | **19** |
| Average Grade | **4.54** | **4.35** | **4.31** | **4.58** | **17.8** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Number of Students (13)** | | |
| **Learning Goal Traits** | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| 1: Organization & Logic |  | **3.75** | **4.89** |
| 2: Voice & Body Language |  | **3.5** | **4.72** |
| 3: Use of Slides to Enhance Comm |  | **3.75** | **4.56** |
| 4: Ability to Answer Questions |  | **4.00** | **4.83** |
| **Total Grade (Out of 20)** |  | **15** | **19** |
|  | | | |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| **Total Students by Category**  *(Based on average score across all traits)* | **0** | **4** | **9** |
|  | **Does not meet expectations: 0 – 12** | **Meets**  **Expectations:**  **13-17** | **Exceeds**  **Expectations:**  **18-20** |

**COMMENTS:**

Students meet communications expectations.

**REMEDIAL ACTIONS:**

None

# RESULTS OF ASSESSMENT: SPRING 2019

**LEARNING GOAL #1:***Ph.D. graduates can effectively communicate research in oral presentations.*

**LEARNING OBJECTIVE #1:***Students will be able to deliver oral presentations effectively.*

**ASSESSMENT DATE:***Spring 2019*

**ASSESSOR: Steve Yang, Zhenyu Cui, Ionut Florescu, Khaldoun Khashanah, Majeed Simaan**

**NUMBER OF STUDENTS: 14 students**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Student Name** | **Trait 1** | **Trait 2** | **Trait 3** | **Trait 4** | **Total** |
| Ziwen Ye | **5** | **5** | **5** | **5** | **20** |
| Hongkai Cao | **5** | **5** | **5** | **5** | **20** |
| Saud Almudi | **4** | **5** | **5** | **5** | **19** |
| Xingjia Zhang | **3** | **5** | **5** | **5** | **18** |
| Yunfan Zhu | **4** | **3** | **4** | **5** | **16** |
| John Robson | **5** | **5** | **5** | **5** | **20** |
| Jiacheng Fan | **4** | **4** | **3** | **5** | **16** |
| Yangyang Yu | **5** | **5** | **4** | **4** | **18** |
| Stavros Tsarpalis | **4** | **5** | **4** | **5** | **18** |
| Thiago Winkler | **5** | **5** | **5** | **5** | **20** |
| Zhaokun Cai | **5** | **5** | **4** | **5** | **19** |
| Mingzhe Liu | **5** | **4** | **5** | **4** | **18** |
| Jeffrey Mo | **5** | **5** | **5** | **4.5** | **19.5** |
| Nils Bundi | **5** | **5** | **4** | **5** | **19** |
| Average Grade | **4.57** | **4.71** | **4.50** | **4.82** | **18.61** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Number of Students (14)** | | |
| **Learning Goal Traits** | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| 1: Organization & Logic |  | **4.0** | **4.7** |
| 2: Voice & Body Language |  | **3.5** | **4.9** |
| 3: Use of Slides to Enhance Comm |  | **3.5** | **4.7** |
| 4: Ability to Answer Questions |  | **5.0** | **4.8** |
| **Total Grade (Out of 20)** |  | **16** | **19** |
|  | | | |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| **Total Students by Category**  *(Based on average score across all traits)* | **0** | **2** | **12** |
|  | **Does not meet expectations: 0 – 12** | **Meets**  **Expectations:**  **13-17** | **Exceeds**  **Expectations:**  **18-20** |

**COMMENTS:**

All students meet communications expectations. And the average score for the four traits have all improved from the previous assessment period (2018 fall) from an average score of 17.77 to 18.61. The percentage of students who exceeded the expectation increased from 69% to 86% from the previous assessment period (2018 fall).

**REMEDIAL ACTIONS:**

None

# OUTCOMES: PHD LEARNING GOAL # 1 AFTER ROUNDS OF ASSESSMENT

The following table shows the average scores on each goal objective for the last 5 years.

|  |  |
| --- | --- |
|  | Objective 1  Communication |
| Fall 2018 | 17.8 |
| Spring 2019 | 18.6 |
|  |  |
|  |  |

# CLOSE LOOP PROCESS – CONTINUOUS IMPROVEMENT RECORD

**Assurance of Learning**

**Assessment/Outcome Analysis**

**Close Loop Process - Continuous Improvement Record**

Program: Ph.D. in Financial Engineering

Goal 1: Ph.D. graduates can effectively communicate research in oral presentations.

Goal Owner: Steve Yang

Where Measured: Students are assessed in the fall semesters in the required qualification presentations.

How Measured: Student presentations are evaluated the PhD colloquium advisors and by the qualification committees.

Closing the Loop: Actions taken on specific objectives

|  |  |
| --- | --- |
| **Objective 1** | *Students will be able to deliver presentations effectively.* |
| **When Assessed:** | **At the end of the 2018 fall semester** |
| **Remedial**  **Action** | Continued enforcement of PhD colloquium attendance |
| **Outcome from previous assessment:** | All the FE PhD students meet the expectations, and nearly 2/3 exceeded expectations. |
| **When Assessed:** | **At the end of the 2019 spring semester** |
| **Remedial**  **Action** | Added more advisors to provide feedback at the colloquium |
| **Outcome from previous assessment:** | Improved from the previous assessment period for all students. All students met expectations and 85% exceeded expectations. |