Stevens Institute of Technology

School of Business

**AACSB  
ASSURANCE OF LEARNING**

**Master in Finance**

**LEARNING GOAL # 4**

**Students are able to implement financial solutions to improve the performance of financial or non-financial businesses.**

**Responsibility: Victor Xi Luo**

May 2019

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# 1. INTRODUCTION: LEARNING GOAL #4

**Goal: Students are able to develop and use financial models and technical systems from a perspective of a broad critical understanding of the financial system.**

*Objective 1: Students can design and implement financial models that address significant problems or requirements in the current financial industry.*

This goal is assessed in FIN 623 Financial Management – a required course in the MFIN curriculum.

# 2. LEARNING OBJECTIVES AND TRAITS

|  |  |
| --- | --- |
| **MFIN 4:** | **Learning Goal - 4: Objectives and Traits** |
| **GOAL** | Students are able to implement financial solutions to improve the performance of financial or non-financial businesses. |
| **Objective 1:** | *Students can design and implement financial models that address significant problems or requirements in the current financial industry.* |
| **Traits** |  |
| Trait 1: | Students have the ability to formulate pricing models for various financial instruments and understand the limitations of such models. |
| Trait 2: | Students can use risk management techniques, measure their effectiveness and identify the practical challenges associated with their application. |
| Trait 3: | Students can design trading strategies and evaluate their performance. |

# 3. RUBRICS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **QF LEARNING GOAL - 4: RUBRIC 1** |  |  |  |
| **QF 4** | **Students are able to implement financial solutions to improve the performance of financial or non-financial businesses.** | | | |
| **Objective 1** | *Students can design and implement financial models that address significant problems or requirements in the current financial industry.* | | | |
|  | **Trait** | **Poor** | **Good** | **Excellent** |
|  | **Value** | **0** | **5** | **10** |
| Trait 1: | Students have the ability to formulate pricing models for various financial instruments and understand the limitations of such models. | Does not have the ability to formulate pricing models. | Able to formulate pricing models but lacks the understanding of their limitations. | Able to formulate pricing models and has a good understanding of their limitations. |
| Trait 2: | Students can use risk management techniques, measure their effectiveness and identify the practical challenges associated with their application. | Unable to set up a hedging strategy. | Able to set up a hedging strategy but cannot assess the effectiveness of such strategy. | Able to set up a hedging strategy and assess its performance. |
| Trait 3: | Students can design trading strategies and evaluate their performance. | Does not have the ability to design trading strategies. | Able to design trading strategies but cannot evaluate their performance. | Able to design trading strategies and evaluate their performance. |
| **Criterion:**  **Does not meet expectations: 0 – 12; Meets: 13-19 ; Exceeds: 20-30** | | | | |

# 4. ASSESSMENT PROCESS

|  |  |  |
| --- | --- | --- |
| **Where & when measured?** | **How measured?** | **Criterion** |
| Assessed in an exam (Midterm/Final) of the required course *FIN 623 Financial Management. A*ssessed in the Spring semester each year. | Description: Relevant exam questions are graded by course owners and aggregated to obtain a total score.  Sampling: Students from the MFIN & MBA program are assessed, since this is a joint course. | 85% of students get a grade of GOOD or better as measured by the rubric for this learning goal |

# 5. RESULTS OF LEARNING GOAL ASSESSMENT – INTRO

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.

# 6. RESULTS OF ASSESSMENT: Spring 2017

**LEARNING GOAL #4:   
Students are able to implement financial solutions to improve the performance of financial or non-financial businesses.**

**LEARNING OBJECTIVE #1:***Students can design and implement financial models that address significant problems or requirements in the current financial industry.*

*.*

**ASSESSMENT DATE:   
ASSESSOR: Eleni Gousgounis  
NUMBER OF STUDENTS TESTED:   
COURSE: FIN 628**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Number of Students** | | |  |
| **Learning Goal Traits** | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** | **Average Grade** |
| Students have the ability to formulate pricing models for various financial instruments and understand the limitations of such models. | **0** | **2** | **13** | **91** |
| Students can use risk management techniques, measure their effectiveness and identify the practical challenges associated with their application. | **0** | **2** | **13** | **91** |
| Students can design trading strategies and evaluate their performance | **3** | **6** | **6** | **78** |
| **Average Grade (Out of 100) =** | | | | **86** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| **Total Students by Category**  *(Based on average score across all traits)* | **0** | **6** | **9** |

**COMMENTS:**

Student performance was satisfactory. However, there is room for improvement.

**REMEDIAL ACTIONS:**

Include more practice problems on the design of trading strategies.

# 7. RESULTS OF ASSESSMENT: Spring 2018

**LEARNING GOAL #4:   
Students are able to implement financial solutions to improve the performance of financial or non-financial businesses.**

**LEARNING OBJECTIVE #1:***Students can design and implement financial models that address significant problems or requirements in the current financial industry.*

*.*

**ASSESSMENT DATE:   
ASSESSOR: Eleni Gousgounis  
NUMBER OF STUDENTS TESTED:   
COURSE: FIN 628**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Number of Students** | | |  |
| **Learning Goal Traits** | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** | **Average Grade** |
| Students have the ability to formulate pricing models for various financial instruments and understand the limitations of such models. | **0** | **3** | **6** | **88** |
| Students can use risk management techniques, measure their effectiveness and identify the practical challenges associated with their application. | **0** | **2** | **7** | **88** |
| Students can design trading strategies and evaluate their performance | **1** | **4** | **4** | **70** |
| **Average Grade (Out of 100) =** | | | | **82** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| **Total Students by Category**  *(Based on average score across all traits)* | **1** | **3** | **5** |

**COMMENTS:**

Student performance was satisfactory and similar to the previous semester. There is room for improvement. However this was a small sample, which might make it harder to make inferences.

**REMEDIAL ACTIONS:**

Include more practice problems on the design of trading strategies, potentially using a trading software.

# 8. RESULTS OF ASSESSMENT: Spring 2019

**LEARNING GOAL #4:   
Students are able to implement financial solutions to improve the performance of financial or non-financial businesses.**

**LEARNING OBJECTIVE #1:***Students can design and implement financial models that address significant problems or requirements in the current financial industry.*

*.*

**ASSESSMENT DATE: 2019/04/10  
ASSESSOR: Victor Xi Luo  
NUMBER OF STUDENTS TESTED: 11   
COURSE: FIN 623 Financial Management**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Number of Students** | | |  |
| **Learning Goal Traits** | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** | **Average Grade** |
| Students have the ability to formulate pricing models for various financial instruments and understand the limitations of such models. | **1** | **2** | **8** | **91** |
| Students can use risk management techniques, measure their effectiveness and identify the practical challenges associated with their application. | **2** | **3** | **6** | **85** |
| Students can design trading strategies and evaluate their performance | **1** | **4** | **4** | **79** |
| **Average Grade (Out of 100) =** | | | | **85** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| **Total Students by Category**  *(Based on average score across all traits)* | **1** | **5** | **5** |

**COMMENTS:**

Student performance was satisfactory and similar to the previous semester. There is room for improvement.

**REMEDIAL ACTIONS:**

Conducted a case study on a highly publicized insider trading fraud case.

https://www.reuters.com/article/us-usa-insidertrading/mit-scientist-gets-15-months-prison-for-insider-trading-idUSKBN1H61PI

# 9. OUTCOMES: MFIN LEARNING GOAL # 4 AFTER ROUNDS OF ASSESSMENT

Comments:

The following table shows the average scores on each goal objective for the last 3 years.

|  |  |
| --- | --- |
|  | Objective 1  Students are able to implement financial solutions to improve the performance of financial or non-financial businesses. |
| Spring 2017 | 86 |
| Spring 2018 | 82 |
| Spring 2019 | 85 |
|  |  |

# 10. CLOSE LOOP PROCESS – CONTINUOUS IMPROVEMENT RECORD

Assurance of Learning

Assessment/Outcome Analysis

Close Loop Process - Continuous Improvement Record

Program: Master in Finance

Goal 4: Students are able to implement financial solutions to improve the performance of financial or non-financial businesses.

Goal Owner: Victor Xi Luo (starting from 2019). Eleni Gousgounis (up to 2018)

Where Measured: Exam questions in required course. FIN 628 Derivatives & FIN 623 Financial Management

How Measured: Relevant exam questions are required by course owner and aggregated to obtain a total score.

Closing the Loop: Actions taken on specific objectives

|  |  |
| --- | --- |
| Objective 1 | *Students can design and implement financial models that address significant problems or requirements in the current financial industry.* |
| **When Assessed:** | *Spring 2017* |
| **Remedial Action** | Include more practice problems on the design of trading strategies. |
| **Outcome from previous assessment:** | Student performance was satisfactory. However, there was room for improvement. |
| **When Assessed:** | *Spring 2018* |
| **Remedial Action** | Include more practice problems on the design of trading strategies, potentially using a trading software. |
| **Outcome from previous assessment:** | Student performance was satisfactory. However, there was room for improvement. |
| **When Assessed:** | *Spring 2019* |
| **Remedial Action** | Conduct a case study on a highly publicized insider trading fraud case. |
|  |  |
|  |  |
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|  |  |