## Syllabus SIE567 – Financial Modeling for Innovation Fall 2015

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**Office Hours:** M 3-5 or by appointment.

## **Description: Financial Modeling for Innovation** (3 units):

This a graduate level course in the economics of technology development for students interested in commercializing research discovery. Topics include Pro Forma financial statements, the time value of money, valuation approaches, and entrepreneurship.

**Prerequisites:** Graduate Student Status in Engineering or Science. No prior knowledge

of engineering economics required. Students are expected to be

reasonably proficient with Microsoft Excel.

Reference: Finkler, Steven A., "Finance & Accounting for Nonfinancial

Managers", CCH Group, 2011. Note this text is NOT required. Park, Chan S., Contemporary Engineering Economics, 5th Edition, (Note that 4<sup>th</sup> or 3<sup>rd</sup> Edition Textbooks are OK as well as any

international (soft cover) editions.) Note this text is NOT required.

**D2L Course**: This class will use web-based D2L (Desire to Learn) as the means of distributing class materials including class assignments. All assignments are expected to be uploaded into Dropboxes on or before the due dates. You will need a UANet ID to access D2L at the following site: <a href="http://d2l.arizona.edu/">http://d2l.arizona.edu/</a>. Students can access recorded lectures via D2L. Click on **UA Resources** then **Panopto**.

**Course objectives:** This course introduces students to concepts of economic analysis and profitability. Specific outcomes include:

- 1. Understanding concepts related to the time value of money.
- 2. Understanding of Pro Forma Income Statements, Cash Flow Statements and Balance Sheets.
- 3. Ability to create financial statements to evaluate the economic potential of research discovery.
- 4. Ability to determine the economic viability, financing required, and ownership outcomes of new ventures.

**Grading:** The grade for this course will be determined as follows:

20% - Final Exam Tuesday December 15<sup>th</sup> 8:00 AM – 10:00 AM

80% - Term Projects

20% - 1<sup>st</sup> Year Financial Model

20% - Forecasted Sales, Manufacturing, & Inventory Model

20% - 10 Year Financial Model

20% - Case Study