SIE567 – Financial Modeling for Innovation (3 Units)
Fall 2018, TuTh 9:30 – 10:45am, Aero & Mech Engr, Rm S212

Instructor: Hongyue Jin, Assistant Professor in Systems & Industrial Engineering (SIE)
Office: Engineering 263A
Email: hjin@email.arizona.edu
Phone: (520) 621-7284
Office Hours: Tue & Thr 11am – 12pm or by appointment
Distance Students: Zoom meetings available by appointment

Teaching Assistant (TA): Arvind Kidambi Badrinarayan
Email: arvindbadri95@email.arizona.edu
Office: Engineering 258A
Office Hours: Mon & Wed 1–2pm

Description: This a graduate level course in the economics of technology development for students interested in commercializing research discovery. Topics include Pro Forma financial statements, 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: Contemporary Engineering Economics, 6th Edition, by Chan S. Park. The earlier edition textbooks are OK as well as any international editions. This textbook 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 D2L on or before the deadline. You will need a UANet ID to access D2L at the following site: http://d2l.arizona.edu/. Help on D2L can be found at https://help.d2l.arizona.edu/student/student-home. All students can access recorded lectures via D2L. Click on UA Resources then Panopto. Students are encouraged to ask questions and leave comments in D2L Discussions so that the instructor and TA can answer them online where everyone can see. It will help share the knowledge equally among all the students.

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% - Homework
80% - Term Projects
- 16% - 1st Year Financial Model
- 16% - Forecasted Sales, Manufacturing, Inventory and Consulting Model
- 16% - 5 and 10 Year Financial Models
- 16% - Business Valuation
- 16% - Case Study