

TECHNICAL ENTREPRENEURSHIP

COURSE OUTLINE SPRING 2022

| Instructor | Mir Abdur Rafeh |
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Course Teaching Methodology

• **Teaching Methodology:** Student-cantered teaching that encourages learning by both learners and teachers. I favor environment that permit dialogue and foster a degree of learners in learning process, and I like learners to think about the class as a community. however, students will be guided to supplementary reading material.

| Course Basics | | | | |
|---------------|--------------|-------|----------|----------------------------------|
| Credit Hours | 3 | | | |
| Lecture(s) | No of Lec(s) | 30-35 | Duration | 1 hour 15 min each, twice a week |

COURSE DESCRIPTION

This course provides an in depth theoretical and conceptual understanding of key concepts in Technical Entrepreneurship. The topics will cover a comprehensive perspective to the challenge of launching, growing and exiting a technology venture. Upon completion, students should have an understanding of the entrepreneurial process and issues faced by entrepreneurs.

| COURSE PREREQUISITE(S) | | |
|------------------------|------|--|
| | None | |

| COURSE OF | COURSE OBJECTIVES | | | |
|-----------|---|--|--|--|
| CO-01 | To assimilate knowledge concerning Technical Entrepreneurship. | | | |
| CO-02 | To familiarize students with various concepts used in understanding the processes involved in technical entrepreneurship. | | | |
| CO-03 | To acquire necessary knowledge and skills required for organizing and carrying out technical entrepreneurial activities. | | | |
| CO-04 | To develop the ability of analyzing various aspects of technical entrepreneurship – especially managing new ventures. | | | |



| U | Learning Outcomes By the end of the course, students will be able to: | | | | |
|-------------------------|--|--|--|--|--|
| LO-01 LO-02 LO-03 | Understand, Describe and Explain the key aspects of a Technical Entrepreneurship Process. Understand the perspectives of launching, growing and exiting a technology venture. Prepare a startup business plan emphasizing financing, product development, marketing, and organizing. | | | | |
| LO-04 | | | | | |

| ASSESSMEN | T INSTRUMENT WITH WEIGHTS | | | | | |
|-----------|-------------------------------|-------------------------------|-------|--|--|--|
| S.NO | Items | · | Marks | | | |
| 1. | Mid Term Exam | | 25 | | | |
| 2. | End Term Exam | | 50 | | | |
| 3. | Internal Evaluation Breakdown | Internal Evaluation Breakdown | | | | |
| | Quiz(s) | | 10 | | | |
| | Assignment (s) | | 10 | | | |
| | Class Participation | | | | | |
| | Presentations | | | | | |
| | Case Discussion | | | | | |
| | Lab Work/Project | | 5 | | | |
| | Any other | | | | | |
| | Total | 25 | 25 | | | |
| | Grand Total | • | 100 | | | |

| WEEK# | LECTURE# | TOPICS TO BE COVERED | |
|-------|----------|--|--|
| | | Introduction, Course Overview and Discussion | |
| | | Introduction to Entrepreneurship | |
| | | How Entrepreneurship Works | |
| | 1. | Characteristics of Entrepreneurs | |
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| 1 | 2. | Technology Entrepreneurship Today: Trends, Opportunities, Challenges Introduction to Technology Entrepreneurship Today The Concept of Entrepreneurial Expertise (Causal versus Effectual Reasoning). Expert Entrepreneur vs Business Expert Effectuation and Minimal Viable Product | CHAPTER 1 |
|---|----|---|-----------|
| | 3 | Technology Entrepreneurship Today: Trends, Opportunities, Challenges (Cont.) | CHAPTER 1 |
| 2 | | Trends and Opportunities in Technology Entrepreneurship Distinguishing Ideas, Innovation, and Entrepreneurship. A word about Global Markets | |
| 2 | 4 | Five Pillars of Technology Entrepreneurship Value Creation The Lean Startup Customer Discovery and Validation | CHAPTER 2 |
| | 5 | Five Pillars of Technology Entrepreneurship (Cont.) The Business Model Canvas The Entrepreneurial Method Deliberate Practice When to Start Practicing | CHAPTER 2 |
| 3 | 6 | Technology Venture Idea Generation Fundamental Venture Types The Idea Generation Process The Opportunity Register Nontraditional Idea Sources | CHAPTER 3 |
| 4 | 7 | Markets and Product or Service Development Product Planning and Development The Idea Development Process The Concept of Newness | CHAPTER 4 |



| | 8 | Markets and Product or Service Development (Cont.) Opportunity Assessment Plan Disruptive Technology The Market | CHAPTER 4 |
|---|----|---|-----------|
| 5 | 9 | Protecting Your Intellectual Property IP and Technology Ventures | CHAPTER 5 |
| 3 | 10 | Protecting Your Intellectual Property (Cont.) Copyrights | CHAPTER 5 |
| | 11 | Legal Structure and Equity Distribution Ownership And Liability Issues | CHAPTER 6 |
| | | Choice of Legal Structure | |
| 6 | | | |
| | 12 | Legal Structure and Equity Distribution Equity and Equity Types Raising Capital Equity Distribution in the Start-up Venture | CHAPTER 6 |
| 7 | 13 | Class Presentations | |
| , | 14 | Quiz and Course Revision | |
| | | MID TERM EXAMS | |
| | 15 | Midterm Papers shown and discussion | |
| 8 | 16 | Developing and Implementing the Technology Business Plan Writing The Business Plan Elements of a Business Plan | CHAPTER 7 |



| | 17 | Developing and Implementing the Technology Business Plan (Cont.) Elements of a Business Plan Business Plan Development and Update | CHAPTER 7 |
|----|----|---|------------|
| 9 | 18 | Capital and Capital Sources The Capital Management Plan Regulation of Financing Activities | CHAPTER 8 |
| | 19 | Capital and Capital Sources (Cont.) Debt Financing Alternatives to Debt and Equity Financing | CHAPTER 8 |
| 10 | 20 | Launching the Venture Market Entry Positioning Market Penetration Strategy Value Chain Analysis | CHAPTER 9 |
| 11 | 21 | Launching the Venture (Cont.) Developing a Contingency Plan Growing beyond the Startup | CHAPTER 9 |
| | 22 | Marketing and Selling Your Products Target Market Selection Purchasing the Product Service Marketing and the Marketing Mix Marketing and the Marketing Mix | CHAPTER 10 |
| 12 | 23 | Contracts Sources of Contract Law Contract Formation Defenses against Contract Enforcement Performance and Breach Anatomy of a Contract Types of Agreements Encountered | CHAPTER 11 |



| | 24 | Venture Management and Leadership Entrepreneurial Leadership Leadership Skills Entrepreneurial Leadership and Ethics | CHAPTER 12 |
|----|----|--|------------|
| 13 | 25 | Valuing and Exiting Your Venture Due Diligence Valuation Exit via Succession Exit via Acquisition | CHAPTER 13 |
| | 26 | Valuing and Exiting Your Venture (Cont,) Exit via Merger Exist via Initial Public Offering | CHAPTER 13 |
| | 27 | Final Project Presentation Final Course Discussion | |
| 14 | | | |

Textbook

The textbook with which we will be covering most of the topics will be:

Book 1: Technology Entrepreneurship Taking Innovation to the Marketplace

Reference/Supplementary Readings (To be Added)



| Reference Material: | | |
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