

TIM 80C: Starting a New Technology Company

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Lecture Location/Time:

Thimann Lecture 001; T/Th, 8:00 –9:45AM

Course Website: <https://tim080c-spring16-01.courses.soe.ucsc.edu/>

About the course:

TIM 80C is an introduction to the process, methods, and tools that are useful in creating a new technology enterprise (a.k.a. “Startup”). The lectures will focus on developing five important components of a startup: (1) the **product concept**, (2) the **market**, (3) the **business strategy**, (4) the **cash flows**, and (5) the **business plan** for financing the startup. Homework assignments, a comprehensive team project, a midterm examination, and a final examination will be used to develop understanding and mastery of the course content. Case studies and occasional presentations by guest speakers from actual startups will be used to illustrate and augment the tools developed in the lectures.

Learning Objectives of the course:

- To understand the process of creating a startup from idea to initial public offering (IPO)
- To develop and apply tools for designing the **product (P)** concept
- To assess and size the **market** for a product, and then develop a **business strategy** for commercialization of the product concept
- To develop and apply financial tools for assessing **cash flows** in the enterprise
- To develop a **business plan** that integrates product (P) strategy, marketing (M) strategy, business (B) strategy, and cash flow analysis with business goals
- To develop a plan for **financing** the growth of the startup
- To gain experience in starting a new technology enterprise through a team project

Grading:

- Homework: 25%
- (Team) Project: 25%
- Midterm Exam (May 3): 25%
- Final Exam (June 7, 4-7 pm): 25%

Project Plan: (dates indicate when reports are due)

- Project teams formed and preliminary project proposal: Tuesday, April 5
- Phase 1, Project Proposal; Preliminary Conceptual Design: April 14
- Phase 2, Product Strategy; Preliminary Marketing and Business Strategy: April 28
- Phase 3, Marketing and Business Strategy; Preliminary Cash Flow Analysis: May 12

- Phase 4, Business and Financial Plan; Preliminary Final Project Report: May 26
- Final Project Report to class: either June 2 or June 9

General comments on the course:

- No single textbook covers the diverse set of topics and tools that constitute this course. It is therefore critical that you attend the lectures and take good notes. **Class handouts** will be provided as appropriate to supplement the key topics covered in the lectures.
- **This course is interactive.** We will be actively discussing homework, case studies, and project work (including presentations) in class. **Therefore, attendance is mandatory.**
- In class please work **strictly** on TIM 80C material that is being covered in the lecture.
- If you have any problems related to the course, please see me immediately so that we can quickly resolve the issue.

Readings:

Jerry Kaplan, “Startup, A Silicon Valley Adventure”, Penguin books, 1996 (paperback). This book is an extended case study on an actual startup in Tablet Computing. Readings will be assigned as part of the homework assignments.

Course Content: (P = Product; M = Marketing; B = Business)

Topic	Methods/Tools
Introduction: Overview of the course; Process for starting a technology enterprise	_____
Idea Generation	Structured Brainstorming
Structured Problem Solving	General Problem Solving Methodology
Product Dissection	Function Analysis Systems Technique (FAST)
P: From Developing a Product Concept to Product Strategy	Function Structure, Morphological Analysis
Project Planning	GANTT and PERT charts
Creating and Working in Teams	Cross Functional Integration
M: From Assessing and Sizing the Market (for the product) to Market Strategy	Market Segmentation and Revenue Map
B: From Competitive Analysis of the Business Landscape to Business Strategy	Porter’s Five Forces Framework
Aligning Product (P), Marketing (M), and Business (B) strategy	Business-Technology-Marketing Map
Cash Flow Analysis/Finance (F)	Net Present Value (NPV)
Creating a Business Plan	Integration of P, M, B, F
Financing the Tech Enterprise	Valuation, Venture Capital
End Game for a Startup	Initial Public Offering (IPO) or Buyout