Standard Course Outline
IS 635 Technology and Start-ups: Developing and Sustaining Business Models

I. General Information

- o Course number: IS 635
- o Title: Technology and Start-ups: Developing and Sustaining Business Models
- o Units: 3
- o Prerequisites: Graduate standing
- o Course Coordinator: H. Michael Chung
- o SCO Prepared by: H. Michael Chung
- o Date prepared/revised: Aug 8, 2016

II. Catalog Description

Developing a technology-based business start-up. Based on digital business models, identifying high value-added business opportunities and sustaining a model. Digital transformation and value assessment. For business managers, investors, and technology entrepreneurs. Case studies, hands-on, and projects that involve real word business ideas. Letter grade only (A-F).

III. Course Objectives, Student Learning Outcomes, Evaluation Instruments, and Instructional Strategies for Skill Development

OUTLINE OF SUBJECT MATTER and COURSE OBJECTIVES

This course focuses on developing and sustaining a technology-based business model in a competitive environment. The business model encompasses your strategies, product and services as well as customers. It describes how a firm would deliver the value propositions, the capabilities, and the economic parameters that will enable you to meet your business objectives. Understanding, analyzing, and developing a business model based on current and emerging technologies is a critical and demanding work process of management and also new hiring across industries. Moreover, how to relate the business model with the required financial resources is important for a firm to continue transforming the new idea to a viable product and service for a market.

Many students will turn to participate in a high-potential, scalable technology enterprise or join an early stage entrepreneurial team. This is significant considering the phase of technological development, launching of innovative applications, and their impact on the economy and the society. Information technologies and their applications play a critical role in the capital market.

This course provides an opportunity to cultivate the attitude, knowledge, and the skills to understand, evaluate, and develop a sound business model. The course introduces a structured way to think about and analyze the difference between success in the lab and success in the marketplace. It is designed to prepare students to review and convert their

new ideas and start an innovative and entrepreneurial endeavor either inside a company or outside of such environment.

MEASURABLE OUTCOME

Students who pass IS 635 must demonstrate the following:

- ability to develop a technology-based business model.
- ability to understand the fundamentals of latest technologies, their applications, and to evaluate their potential impact on business.
- ability to relate latest technologies with business functional area applications.
- ability to understand and implement how to manage, nurture, and sustain a technology-based start-up, and achieve the intended goal.

LEARNING OBJECTIVES

The primary learning objective of this course is to develop a conceptual framework and the analytic skills to understand the variety of management, technology, and funding issues related to constructing a sustainable business model. The specific learning objectives of this course are:

- **Critical Thinking Skills**: Students will build their critical thinking skills through the managerial decision-making process in developing a business model. Student will be able to demonstrate these skills through case analysis and problem solving exercises.

- **Interpersonal, Leadership, and Team Skills**: Students will develop their teamwork, interpersonal and leadership skills in a business start-up or in an enterprise. Students will demonstrate the interpersonal, leadership and team skills through team projects including case analysis and group presentations.

- **Business Functions Skills**: Students will demonstrate that a successful business model requires the understanding of business functional areas as well as close interaction among them.

- **Quantitative & Technical Skills**: Students will acquire the necessary quantitative and technical skills to analyze and interpret business decisions based on collected data and derived information. Students will demonstrate these skills through technology forecasting, risk analysis, technology valuation, and financial analysis.

EVALUATION INSTRUMENT

Specific assignments will vary by instructor, but typical assignments include hands-on,

in-class exams, presentations, and a project.

INSTRUCTIONAL STRATEGIES:

The instruction should include demonstration and hand-on exercises as well as discussions.

The instruction should cover current venture industry trends and latest technology status.

IV. Methods of Instruction

A. **INSTRUCTION MODE.**

[X] Traditional   ☐ Hybrid   ☐ Local Online   ☐ Distance Education

B. **CLASSROOM ACTIVITIES.**

   i. Demonstration, hands-on, and discussions

   ii. Presentations

C. **EXTENT AND NATURE OF TECHNOLOGY USE**
   Extensive usage of computers and technology applications

V. Information about Textbooks/Readings

-How the New Business Models of Digital Age have Evolved, J. Celaya and J.A. Vasquez, et al., Dosdoce, 2016.

-Technology Ventures: From Ideas to Enterprise (4th edition), McGraw Hill, 2014, ISBN 978-0073523422.

-Start-up City: Inspiring Private and Public Entrepreneurship, Getting Projects Done and Having Fun,   G. Klein and D. Vega-Barachowitz, Island Publishing, 2016, ISBN 978-1610916905.

-IoT Disruptions 2020: Getting to the Connected World of 2020 with Deep Learning IoT, S. Jamthe, Creative Space, 2016, ISBN 978-1519503411.

-Harvard, MIT, and Stanford Cases and Articles.

VI. Instructional Policies Requirements

Instructor's syllabi must contain explicit statements regarding their own policies with regard to plagiarism, withdrawal, absences, etc., which should be consistent with the University policies published in the CSULB Catalog. It is expected that every course will follow University policies on Attendance (PS 01-01), Course Syllabi (PS 04-05), and Final Course Grades, Grading Procedures, and Final Assessments (PS 12-03). If some or all sections of the course are to be taught, in part or entirely, by distance learning, the course must follow the

provisions of [Academic Technology and the Mode of Instruction (PS 03-11)](#).[1] Instructors should refer to the current [CSULB Catalog](#) and to the [Academic Senate website](#) for campus guidelines and policy statements as they develop their individual course policies.

All sections of the course will have a syllabus that includes the information required by the syllabi policy adopted by the Academic Senate. Instructors will include information on how students may make up work for excused absences. When class participation is a required part of the course, syllabi will include information on how participation is assessed.

VII.   Course Assessment and Grading (Optional but highly recommended for core courses)

A. Assessment Criteria

Homework

Students will complete individual and group based homework profiling their competence in various subject matters.

Assignments and Exam

Students will complete assignments and a final exam (required).

Projects

Instructors are strongly encouraged to assign comprehensive course project (group) that requires problem solving and uses software tools to conduct real-world data analysis.

B. Required Statement

In compliance with university policy: Final grades will be based on at least three, and preferably four or more, demonstrations of competence. In no case will the grade on any class tests count for more than one-third of the course grade.

C. Attendance, Withdrawal, Late Assignments

Students are expected to attend courses and turn in assignments on time. Specific attendance and late assignment policies are up to each individual instructor's discretion. The withdrawal policy is the same as that of the university.

VIII.   Disabilities

Students with disabilities are responsible for notifying their instructor as early as possible of their needs for an accommodation of a verified disability. A student with a disability is urged

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[1] The university policies listed are active as of 2015-2016 but may be subject to change in the future. For the most up-to-date policies, refer to the Academic Senate website's [Policy Statements](#).

to consult with Disabled Student Services as soon as possible in order to identify possible accommodations to enhance academic success.

IX. Assistive Technology

In compliance with Accessibility and Faculty Responsibility for the Selection of Instructional Materials (PS 08-11), instructors are responsible for ensuring that their syllabi and instructional materials are accessible to all students.

X. Bibliography (Optional)

XI. Consistency of SCO Standards across Sections

XII. Additional Resources for Development of Syllabi
- University policy Course Syllabi and Standard Course Outlines (PS 11-07)
- Academic Technology (ATS) Accessible Syllabus Template
- Faculty Center for Professional Development (FCPD) Sample Syllabus Template