

# **E 102: SCIENTIFIC AND TECHNOLOGY ENTREPRENEURSHIP**

**Spring 2017 • Fridays 1:00-4:00 PM • 135 Gates.Thomas**

**This practical, “hands on” course is designed for Caltech undergraduate students (primarily juniors and seniors) and graduate students who are interested in starting up high tech companies early in their careers or who want to be key contributors in young emerging technology companies after graduation.**

## **Course Description**

The course introduces students to the conceptual frameworks, the analytical approaches, the personal understanding and skills, and the actions required to launch a successful technology-based company. Specifically, it addresses the challenges of evaluating new technologies and original business ideas for commercialization, determining how best to implement those ideas in a startup venture, attracting the resources needed for a new venture (e.g., key people, corporate partners, and funding), organizing and operating a new enterprise, structuring and negotiating important business relationships, and leading early stage companies toward “launch velocity”.

Several teaching and learning techniques are used in the course. The primary technique is the classroom discussion by students of real case situations of technology ventures facing a variety of challenges at various stages of their development. Also, students will have the opportunity to practice applying what they are learning during the course to real technologies and how those technologies might be commercialized in new products at startup ventures.

There are no academic pre-requisites for the course. The course enrollment will be limited to 50 students.

## **Course Instructor**

**Ed Zschau** (pronounced like the first syllable of “shower”) has started and led several technology companies in Silicon Valley and in other regions of the United States during the past 48 years as well as heading the \$6.5 billion IBM Storage Systems Division in the 1990s. He is currently an investor in and Board member for four tech-based companies. He was a professor for several years at the Stanford Graduate School of Business in the 1960s and at the Harvard Business School in the 1990s. Ed created a similar High Tech Entrepreneurship course in the Engineering School at Princeton University in the 1990s and offered that course for thirty-one semesters to a total of more than 1,600 undergraduate students over the years. He continues as a part time researcher and faculty member at Princeton. Also, he participated with other professors in offering a similar course at Caltech in the spring quarters of 2014 and 2015, and for the past two fall semesters he offered a High Tech Entrepreneurship course in the College of Engineering at the University of Nevada, Reno. Ed served in the US House of Representatives representing the Silicon Valley area of California in the US Congress for two terms in the 1980s. He received his AB with honors in Philosophy from Princeton in 1961 and his MBA, MS (statistics), and Ph.D. degrees from Stanford University in the 1960s.