

**MBA 290T.3A/ENG290.3**  
**Innovation and Entrepreneurship in Wireless Services** (PART 1)

**MBA 290T.3B/ENG290.5**  
**Innovation and Entrepreneurship in Wireless Services** (PART 2)

Dr. Reza Moazzami

**REVISED August 28, 2009**

**Class Schedule**

Date: TuTh  
Time: 4:00 – 6:00 PM  
Location: C135 Cheit Hall  
Office Hours: Th 6:00 – 7:00 PM or by appointment  
Office: F541 Haas School  
Email: rezam at haas dot berkeley dot edu

**Course Description:**

MBA 290T–3A and MBA 290T–3B (and the respective cross–listed engineering courses ENG 290–3 and ENG 290–5) when taken in sequence are intended to be the ‘capstone’ strategy and general management course for students interested in pursuing careers in the global wireless industry. MBA 290T–3A/ENG 290–3 meets September 1 through October 15 while MBA 290T–3B/ENG290–5 meets October 20 through December 3.

**Learning Objectives:**

- View the wireless industry through the eyes of the general manager/CEO of a wireless firm (whether a start–up or an industry giant).
- Understand how to evaluate strategic options and their consequences.
- Understand the perspectives of various industry players and be able to anticipate how they are likely to behave under various circumstances.

No other technology in the history of this planet has proliferated as quickly to as many people as the mobile phone. Within twenty–five years of the first commercial deployments, worldwide mobile phone subscriber population (roughly 4 billion) and annual unit shipments (roughly 1 billion) have far exceeded those of fixed–line phones, television sets, personal computers, and fixed–line internet connections. Yet, despite this explosive growth, there are significant and unique challenges in creating a commercially successful wireless service as many innovators and entrepreneurs (whether in a start–up or an

established company) have discovered in recent years. The strategic choices made regarding how an innovation is introduced into the market and the nature of the innovator’s role in relation to the rest of the ecosystem matter.

We will analyze the role of regulatory, technological, economic, and market forces in shaping wireless industry structure, business models, and competitive dynamics. Special emphasis is placed on identifying opportunities and understanding the challenges for startups and other new entrants, particularly through examining both successful and unsuccessful case studies of new wireless services.

In the context of this course, wireless services encompass voice, data, and video services (including broadcasting) offered over terrestrial and satellite networks. Given the size and relative impact, the vast majority of the course will be devoted to mobile phone markets and technologies.

The course is fundamentally about strategy and general management but we will draw from a variety of disciplines including public policy, law, marketing, economics, finance, engineering, and physics to identify the key issues, analyze the potential options and understand the consequences of the decisions made by management.

There are no prerequisites beyond graduate student standing.

Course material is presented through a series of case studies, class discussions, and first-hand accounts from guest speakers.

**Requirements:**

A letter grade (no pass/fail option) for the course will be assigned based on the following:

Participation	40%
Preparation	60%
Total	100%

**Reference and Supplementary Material:**

The following web sites are good sources of up-to-date news and information for the specified topics:

- Wireless Industry News:  
[www.wirelessweek.com](http://www.wirelessweek.com)  
[www.rcrnews.com](http://www.rcrnews.com)  
[cellular-news.com](http://cellular-news.com)  
[www.unstrung.com](http://www.unstrung.com)  
[www.fiercewireless.com](http://www.fiercewireless.com)
- International Telecommunications News:  
[www.totaltele.com](http://www.totaltele.com) (paid subscription site)  
[www.telecomasia.net](http://www.telecomasia.net)  
[www.smartbrief.com/news/telecomm](http://www.smartbrief.com/news/telecomm)
- WiFi: [www.wi-fiplanet.com](http://www.wi-fiplanet.com)
- WiMAX: [wimax.com](http://wimax.com) [www.80216news.com](http://www.80216news.com) [www.wimaxtrends.com](http://www.wimaxtrends.com)
- Municipal Wireless: [muniwireless.com](http://muniwireless.com)
- Location Based Services: [lbszone.com](http://lbszone.com)
- Satellite Radio: [www.orbitcast.com](http://www.orbitcast.com)
- Technology:  
[www.rfdesign.com](http://www.rfdesign.com)  
[www.commsdesign.com](http://www.commsdesign.com)
- Broadcasting:  
[www.multichannel.com](http://www.multichannel.com)  
[www.broadcastpapers.com](http://www.broadcastpapers.com)

The following sites provide more information on various industry groups:

- International Telecommunication Union: [www.itu.int](http://www.itu.int)
- Federal Communications Commission: [www.fcc.gov](http://www.fcc.gov)
- FCC National Broadband Plan: [broadband.gov](http://broadband.gov)
- Wireless Congress: [www.wirelesscongress.com](http://www.wirelesscongress.com)
- Wireless Communications Association International (broadband): [www.wcai.com](http://www.wcai.com)
- Cellular Telecommunications and Internet Association: [www.ctia.org](http://www.ctia.org)
- Unlicensed Wireless Internet Service Providers: [www.part-15.org](http://www.part-15.org)
- Telecommunications Industries Association (technology vendors): [www.tiaonline.org](http://www.tiaonline.org)
- European Telecommunications Standards Institute: [www.etsi.org](http://www.etsi.org)
- 3G Partnership Project (W-CDMA): [www.3gpp.org](http://www.3gpp.org)
- 3G Partnership Project 2 (cdma2000): [www.3gpp2.org](http://www.3gpp2.org)
- UMTS Forum: [www.umts-forum.org](http://www.umts-forum.org)
- CDMA Development Group: [www.cdg.org](http://www.cdg.org)
- GSM Association: [www.gsmworld.com](http://www.gsmworld.com)
- 3G Americas (GSM supporters in the Americas): [www.3gamericas.org](http://www.3gamericas.org)
- Femtocells: [femtoforum.org](http://femtoforum.org)
- Common Short Code Administration: [www.usshortcodes.com](http://www.usshortcodes.com)
- Software Defined Radio Forum: [www.sdrforum.org](http://www.sdrforum.org)
- 4G/Wireless World Research Forum: [www.wireless-world-research.org](http://www.wireless-world-research.org)
- Internet Engineering Task Force: [www.ietf.org](http://www.ietf.org)
- IEEE Standards Association: [standards.ieee.org/wireless](http://standards.ieee.org/wireless)    [ieee802.org](http://ieee802.org)
- Wi-Fi Alliance: [www.wi-fi.com](http://www.wi-fi.com)
- WiMAX Forum: [www.wimaxforum.org](http://www.wimaxforum.org)
- WiMedia Alliance: [www.wimedia.org](http://www.wimedia.org)
- WirelessHD: [www.wirelessHD.org](http://www.wirelessHD.org)
- Wireless Gigabit Alliance: [wirelessgigabitalliance.org](http://wirelessgigabitalliance.org)
- Zigbee Alliance: [www.zigbee.org](http://www.zigbee.org)
- Digital Video Broadcasting: [www.dvb.org](http://www.dvb.org)
- National Association of Broadcasters: [www.nab.org](http://www.nab.org)
- HD Radio Alliance: [www.hdradio.com](http://www.hdradio.com)

**Course Content:**

**MBA 290T-3A & ENG 290-3:**

- SEPTEMBER 1            INTRODUCTION
- SEPTEMBER 3            SPECTRUM POLICY AND REGULATION
- SEPTEMBER 8 & 10    TECHNOLOGY AND STANDARDS
- SEPTEMBER 15 & 17   SERVICE PROVIDERS: BUSINESS MODELS AND COMPETITIVE STRATEGY
- SEPTEMBER 22 & 24   SERVICE PROVIDERS: MARKETING AND DISTRIBUTION
- SEPTEMBER 29 & OCTOBER 1        DEVICES
- OCTOBER 6 & 8        PLATFORMS
- OCTOBER 13 & 15    INNOVATION IN WIRELESS SERVICES

**MBA 290T-3B & ENG 290-5:**

- OCTOBER 20 & 22    LOCATION-BASED SERVICES
- OCTOBER 27 & 29    MOBILE ENTERTAINMENT
- NOVEMBER 3 & 5     CELLULAR MARKETS IN DEVELOPING COUNTRIES
- NOVEMBER 10 & 12   FIXED-MOBILE CONVERGENCE AND UBIQUITOUS COVERAGE
- NOVEMBER 17 & 19   BROADBAND WIRELESS
- NOVEMBER 24 & DECEMBER 1        WIRELESS TECHNOLOGY: STRATEGIES FOR NEW ENTRANTS
- DECEMBER 3            COURSE WRAP-UP