Leadership and Entrepreneurship Studies

Instructor(s):
Gábor Bojár
Ernő Duda
Andrea Szabó

Aims of the Course:
Unlike pre-professional courses with similar title at business schools, the goal of this course is neither to prepare for a business career nor to promote entrepreneurship among CS majors. In contrast our goals are:

- To help students to make the final decision whether to consider an entrepreneurial career
- To help students to assess and evaluate the business potentials of their prospective employers.
- To enable students to design IT products and services with better marketability by understanding customers’ purchasing motivations.
- To enable students to integrate better into their future employers’ organization by understanding the roles and key considerations of each player in an IT company, such as founders, managers, marketing, sales and technical support people.

Short Description of the course:
AIT’s Leadership and Entrepreneurship Studies course is designed for undergraduate students of liberal art colleges and engineering schools, particularly for those pursuing Computer Science/Engineering degrees. These students generally do not have prior background - or even interest - in business. Understanding today’s business environment, however, is crucial for scientists and engineers responsible for the design of future IT products and services. Students will be familiar with the business aspects of the IT field and with the characteristics and responsibilities of successful entrepreneurs, business professionals including managers, sales people, marketing specialist and others.

The course presents the basic analytical tools for understanding, evaluating, launching, financing and managing new IT companies. Students will be exposed to the frameworks and tools required to evaluate potential market opportunities, perform product evaluation from marketability perspectives (RWW analysis) perform SWOT analyses, prepare strategic plans and financial models, as well as “package” their business idea for presentation to investors and different types of customers. In addition, the course provides insights into the particular management challenges facing startups, such as team motivation, equity and compensation issues, managing growth and others. Special attention is paid to the impact of globalization, the different challenges facing entrepreneurs in the US, Europe, and Asia/Pacific, and cultural differences within Europe.

Main topics covered:
- What makes an “Entrepreneur?” External and internal motivations, human attributes of successful entrepreneurs.
- Identifying constraints vs. competitive advantages.
- Real – Win – Worth analysis (“RWW test”).
- The different phases of market development and appropriate marketing messages to customers.
- Team management and motivation.
- The challenges of growth.
- Financing the growth: angel, venture and public capital, exit strategies.
- How to write and Business Plan.
- Corporate governance in different growth phases.
- Negotiation skills and strategies.
- Pricing, freemium business model.
- Exponential technologies and exponential organizations.
- Business ethics.
- Leadership.

All of these topics are illustrated with examples from the instructors’ entrepreneurial history (at Graphisoft and Solvo) with their successes and failures. These experiences are compared with the experiences of selected guest speakers from other representatives of the Hungarian IT industry, including mobile computing, presentation software, and others. The conclusions are supported by the history of Apple, Microsoft, Google, and other key players of the global IT industry as well.

**Intended learning outcome:**

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<thead>
<tr>
<th>Core Learning Area</th>
<th>Learning Outcome</th>
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<tbody>
<tr>
<td>Entrepreneurial skills and ambitions</td>
<td>Students will be able to evaluate and assess their own entrepreneurial skills and ambitions.</td>
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<tr>
<td>Leadership skills and ambitions</td>
<td>Students will be able to evaluate and assess their own leadership skills and ambitions.</td>
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<tr>
<td>Motivation skills</td>
<td>Students will learn how to motivate employees in different positions and different maturation phases of the business.</td>
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<tr>
<td>Strategic planning skills</td>
<td>Students will be able to analyze competitive advantages and challenges, market opportunities and resource requirements.</td>
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<tr>
<td>Soft skills</td>
<td>Students will be able to experience self-awareness through interactive group work. Being self-aware is being more self-knowledgable, and thus having more options and choices any any given situation.</td>
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<tr>
<td>Critical Thinking, Creativity</td>
<td>Students will be encouraged to question the applicability of conventional prescriptions, as well as the impact of non-quantitative information.</td>
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<tr>
<td>Analyzing customers’ motivation when purchasing IT products and services</td>
<td>Students will be able to build empathy with lay customers, not having any background in IT, and will learn how to understand customers’ businesses and priorities better.</td>
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<tr>
<td>Cultural Sensitivity and Diversity</td>
<td>Students will have increased understanding and acceptance of diversities in viewpoints.</td>
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<td>Negotiation Skills</td>
<td>Student will learn negotiation strategies and skills, pricing models.</td>
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<tr>
<td>Business Ethics</td>
<td>Students will learn how to balance shareholders’ interest and wealth maximization with the legitimate interests of others, such as customers, employees, business partners and the entire society.</td>
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<tr>
<td>Communication Skills</td>
<td>Students will improve their ability to express and supplement their own analyses and improve their presentation skills.</td>
</tr>
<tr>
<td>Financial Skills</td>
<td>Students will learn basic financial terminology and express their conclusions in financial terms, the common business language.</td>
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**Method of Instruction:**
The course is organized into interactive lectures and project works. Lectures include slide presentations,
available to students following presentation in class. Slides serve as guidelines only and do not summarize all points presented in class, some parts of presentations may be verbal only, without slides. Guest lectures from the Hungarian IT industry also speak in class and company visits (2-5 companies / semester) will be organized.

Soft skills seminars will be organized as interactive self-awareness workshops, based on pair work, work in triads and individual work. As soft skills don’t come in a textbook, they come from inside every individual, the seminars will aim at raising awareness on the students’ strengths they can rely on and on areas of development. These seminars will be mini trainings focusing on individual and group reflection.

**Homework assignments:**
Throughout the semester students are expected to write two (3-4000-character each) essays about companies visited, analyze their strengths and weaknesses, their market opportunities and related challenges (SWOT analysis). Students are also expected to assess the attractiveness of the visited companies as potential employers. Sample essays will be provided before the visits.

For project-based group work, teams of 3-4 students develop presentations about a particular business idea. Each group selects a business idea from the array of choices offered by the instructor, and the groups are also allowed to propose alternate ideas. The goal is not to invent the “best idea” but to develop the skills to assess a business idea whether there is a real market for the product, what kind of competitive advantages are required, and the financial viability of the project (RWW analysis). Students also develop skills to present a business idea to potential investors and to potential customers.

Students develop presentations for different simulated audiences in 3 presentation sessions:

- **Presentation session 1:**
  Business idea presentation to early investors (“Business Angels”).

- **Presentation session 2:**
  Presentation to three different type of customers: to pioneers on a new technology market, to visionaries on a developing market and to pragmatists on a mature market.

- **Presentation session 3 (Final Exam):**
  Business Plan presentation to professional investors in a growth phase of the company.

The presentations’ purpose is to develop the students’ ability to formulate appropriate message for different audiences. The customer presentations demonstrate students’ selling ambitions and skills, their understanding of customers’ motivations in different market development phases.

Students are expected to identify target customer groups and design a survey that allows them to assess the real market need for their product. Each group is then expected to conduct customer surveys with real potential customers. Every student is required to speak to at least five different potential clients, then the group needs to share and discuss their findings and present their conclusions.

Two personal SWOT analyses (3500 – 4000 characters each) will be required as assignments that are linked to the soft skills segments of the course. Students are expected to prepare their personal analysis about their own entrepreneurial ambitions and skills, and in the second half of the semester they should prepare a similar analysis about their leadership ambitions and skills.

By the end of the course a 15-25.000-characters long **Business Plan** is to be submitted about the selected business idea. The Business Plan will cover market analysis, product differentiation, business model, pricing strategy, marketing and sales strategy, company development plan and financials, including a stipulated 3-5 years historic financial performance and 3-5 years financial forecast. Prior to drafting the Business Plan there will be a workshop about the basic financial calculations, including Profit and Loss statement and Cash Flow analysis. The Business Plan should also detail risk factors and exit strategies for investors. Beyond the written Business Plan students are expected to make a live presentation of the Business Plan to professional
investors (Presentation session 3 above, serving as final exam).

See sample presentation from 2012 spring semester by Kavan McEachern (Vassar College), Balázs Pintér (BME) Dávid Lányi (BME) here.
See sample business plan from 2012 spring semester by Kavan McEachern (Vassar College), Balázs Pintér (BME) Dávid Lányi (BME) here.

<table>
<thead>
<tr>
<th>Type of work</th>
<th>Assignment</th>
<th>Individual or group work</th>
<th>Estimated workload</th>
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<tbody>
<tr>
<td>Assigned readings</td>
<td></td>
<td>individual</td>
<td>20 hours</td>
</tr>
<tr>
<td>Personal SWOT 1</td>
<td>SWOT analysis about your entrepreneurial ambitions and skills</td>
<td>individual</td>
<td>3 hours</td>
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<tr>
<td>Presentation 1.</td>
<td>Presentation of business idea to early investors</td>
<td>group</td>
<td>7 hours</td>
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<tr>
<td>Essays 1.</td>
<td>Analyze startup companies (based on company visits)</td>
<td>individual</td>
<td>3 hours</td>
</tr>
<tr>
<td>Presentation 2.</td>
<td>Presentation of a product to 3 different types of customers</td>
<td>group</td>
<td>7 hours</td>
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<tr>
<td>Essays 2.</td>
<td>Analyze mature companies (based on company visits)</td>
<td>individual</td>
<td>3 hours</td>
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<tr>
<td>Market research</td>
<td>Customer questionnaire and interviews</td>
<td>individual/group</td>
<td>4 hours</td>
</tr>
<tr>
<td>Personal SWOT 2.</td>
<td>SWOT analyses about your leadership ambitions and skills.</td>
<td>individual</td>
<td>3 hours</td>
</tr>
<tr>
<td>Business plan and presentation 3.</td>
<td>Written and presented Business Plan</td>
<td>group</td>
<td>20 hours</td>
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Grading:

Business idea evaluation (teams are graded, based on the first presentation): 10%
Market development and customer preference understanding (teams are graded based on the questionnaire and customer presentations): 15%
Analysis of the visited companies (essays): 10%
Evaluation of the personal SWOT analyses: 20%
Quality of the Business Plan (teams are graded): 20%
Presentation skills: 10%
Class participation and activity: 15%

Prerequisites:
No need for specific management or accounting skills for this course.

Textbooks:

- Moore, Geoffrey: Crossing the Chasm
- Aulet, Bill: Disciplined Entrepreneurship: 24 Steps to a Successful Startup, Wiley 2013

**Synergies with other courses:**
Participants of the Leadership and Entrepreneurship Studies course are encouraged to sign up for the User Interface Design course as well, because the objectives of the two courses are closely related. While the Leadership and Entrepreneurship Studies course is focusing on building a company to sell a product, the User Interface Design course focuses on how to design an easy-to-use product. The best way to present a product idea to potential investors, for example, is to present its preliminary user interface plan. In other words, successful entrepreneurs should have a good sense to user interface design as well.

**Instructors' bio:**

**Gábor Bojár** (born 1949) is one of the very few entrepreneurs of Central-Eastern Europe to have succeeded in global business during the era of state-socialism. He founded Graphisoft, a software development firm, which became one of the top three international software vendors in its field within ten years. Claiming the most prestigious awards of the trade, Graphisoft's leading product, ArchiCAD® is used by hundreds of thousands of architects around the world. Graphisoft was listed on the Frankfurt and the Budapest stock exchange and has been purchased by Nemetscheck Gmbh in 2007. Mr. Bojár remains Chairman of Graphisoft's Board of Directors. Mr. Bojár is also the founder of Graphisoft Park, a real-estate development that turned an industrial site on the bank of the River Danube into a state-of-the art science park. Mr. Bojár was also an adjunct faculty member of Central European University Business School, lectures internationally, and has published a book exploring the "Graphisoft story" with an analytic perspective.

In 2007 Mr. Bojar founded Aquincum Institute of Technology and dedicates most of his time and other resources to realize the mission of AIT. Mr. Bojár has received numerous national and international awards for scientific and business excellence. He has been named by the Wall Street Journal as one of the ten most successful entrepreneurs in Central Europe and by Ernst and Young as Entrepreneur of the Year in Hungary. He has also spoken at several prestigious events including the Davos World Economic Forum. Mr. Bojár obtained his M.S. in physics from Eötvös Loránd University in Budapest.

**Ernő Duda** (born 1968) is Co-Founder, President & CEO of **Solvo Biotechnology**, Hungary’s largest independent biopharmaceutical company. Mr. Duda is also Founder and President of the **Hungarian Biotechnology Association**, and Co-Founder and Senior Consultant of **Qualinnova Consulting**. He has been acting as CEO of Solvo since 1999, and as a genuine entrepreneur, he has founded or co-founded 20 companies, including a corporate finance consulting company focused on high-tech Hungarian start-ups, and Hungary’s largest online second-hand book store. He is Co-Founder and Chairman of Aquincum Incubator, founded to help to develop new technology startups. He was Vice President of the American Chamber of Commerce in Hungary, and President of the Junior Achievement Foundation Hungary. Mr. Duda was a member of the Research and Technology Innovation Council, the Board of Trustees of the Bay Zoltán Foundation for Applied Research, and works on the board of the Hungarian Association for Innovation. As an Associate Professor at the University of Szeged, he holds courses on the business aspect of the biotech industry. He is also a regular contributor to newspapers, periodicals and other publications, and frequently holds presentations on biotechnology and entrepreneurship at conferences, trainings and other public events.

**Andrea Szabó** (born in 1969) works as an executive, team and career coach, and as a Gestalt Therapist. She holds an M.A. degree (Eötvös Loránd University, Budapest), a degree in Human Resources Management (Central European University), and a Degree in Gestalt Psychotherapy (Norwegian Gestalt Institute). She has a certification in individual and team coaching, and a license in career coaching (Accredited by the Association of Coaching, London, UK). Andrea has held various managerial positions for 15 years before becoming a coach in 2008. She has worked as a Managing Partner for the largest Hungarian Executive Search firm, Telkes Consulting Inc, and as the HR Director Worldwide for Graphisoft. She has a
professional international background, having worked on projects e.g. in the U.S., Canada, Japan, Germany, Romania, Czech Republic, Slovakia, Poland.