Entrepreneurship in Data Science and Analytics

Course Manual

Code: X_405122
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Credits: 6 ECTS
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Vrije Universiteit Amsterdam
Faculty of Sciences
MSc Business Analytics

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The course ‘Entrepreneurship in Data Science and Analytics’ (EDSA) is an elective course for 1st year master students Mathematics and Computer Science at the Faculty of Sciences of the VU University Amsterdam, especially students ‘Business Analytics’. The general aim of this course is to deliver knowledge about and insight in the relevance of entrepreneurship and innovation for the discipline of sciences as well as to develop entrepreneurial skills.

Entrepreneurship is an increasingly important subject for students and professionals, also in the discipline of sciences. The growing complexity of the data science and business analytics sector and its accelerating dynamics urge professionals to think and act in an entrepreneurial way. In this course, entrepreneurship is defined in a broad sense, as ‘the creation, discovery and exploitation of value-adding opportunities’. This definition includes both independent (small) business ownership and corporate entrepreneurship (entrepreneurial activities undertaken within a larger firm).

This course manual is subject to changes, which will also be announced on blackboard.

**Learning objectives**

After the successful completion of this course, the student will:

- Be familiar with an innovation outlook on entrepreneurship.
- Be aware that entrepreneurship is not limited to financial aspects but also includes social and ecological aspects (sustainable entrepreneurship).
- Have developed insight into, and actually developed, one’s own networking skills.
- Be familiar with a common business model template (Business Model Canvas).
- Have the competencies and skills to write a business plan aimed at bringing an innovation to the market.
- Know the importance of valorization of scientific findings and business ideas for a knowledge-based economy.
Course outline

The course is divided in three parts:

1) Theories of modern entrepreneurship, more specifically a general introduction, the relationship between entrepreneurship and (open) innovation, and sustainable entrepreneurship. In the general introduction, the focus will be one ....

2) Development of entrepreneurial soft skills. The students will take initial action with regard to the implementation and fulfillment of their business ideas. Specifically, they are asked to approach different stakeholders to further their projects, for example by gaining commitment of relevant stakeholders or by obtaining important information. For this purpose, the students will receive training in networking and network utilization.

3) Business plan. The students (in small groups) will write a plan bringing an innovation (from their own discipline) to the market. The used format for this is Business Model Canvas (BMC) 4.3. This part will include coaching sessions and guest lectures as well. The criteria for grading are: completeness, feasibility, and originality/vision. A dissatisfier is the readability of the report. An additional bonus point can be earned with the evaluation of the business jury (the maximum grade including bonus the bonus point is always 10)

Schedule

The course consists of two blocks. In the first block, above mentioned part 1) will be dealt with. In the second block, above mentioned parts 2) and 3) will be dealt with. Check the official website for the schedules.
Schedule and study time

Successful completion of the EDSA course delivers 6 ECTS, hence 160 hours in study time is required. The different elements have the following study time:

- Lectures: 18 hours.
- Consultancies: 8 hours.
- Writing business plan (BMC 4.3): 45 hours.
- Practice of enterprising competencies: 20 hours.
- Self-study 65 hours.
- Examination 4 hours.

Please note that attendance to all lectures is compulsory (and will be checked). A number of small assignments should be made, in order to prepare for the lectures.

Grading

The course grade is based on the exam and the business plan assignment. The exam should be concluded with the degree of 5.0 or higher; the business plan assignment should be concluded with the degree of 6.0 or higher. Both the exam and the assignment study yield 50% of the final grade. The business plan includes a reflection on the enterprising actions taken as well.

Literature/References

The knowledge of the literature will be tested with the exam (including information provided during the lectures). Materials used in the lectures (like PowerPoint presentations) will be made available through Blackboard.


Assignment Literature


020216