

Faculty of Law

# JAEN60, Smart Contracts, Blockchain and FinTech, 7.5 credits

Smart Contracts, Blockchain och FinTech, 7,5 högskolepoäng Second Cycle / Avancerad nivå

## Details of approval

The syllabus was approved by Faculty of Law Board of education at undergraduate and postgraduate levels on 2018-04-19 to be valid from 2018-04-19, spring semester 2018.

## **General Information**

The course Smart Contracts, Blockchain and FinTech is an optional course within the Master's Programme in European Business Law at the Faculty of Law. The course is open to students on the programme leading to a Swedish Professional Law degree and who follow the Master's Programme in European Business Law in their studies at advanced level.

The course is scheduled to require 5 weeks of full-time studies.

Language of instruction: English

Main field of studies

European Business Law

Depth of study relative to the degree requirements A1F, Second cycle, has second-cycle course/s as entry requirements

### Learning outcomes

The course is an introductory course into the blockchain and smart contracts technology and its legal implications. The aim is to enable students to understand and critically evaluate the implication of smart contracts within a legal and business context.

### Knowledge and understanding

To pass the exam the student shall:

- show a solid understanding of smart contracts and the blockchain technology
- show an understanding of principles of smart contracts and the blockchain technology and how they function in a legal context
- show an understanding of how smart contracts and the blockchain technology interact with law.

### Competence and skills

To pass the exam the student shall show a good ability to:

- master a wide range of technology and law ranging from legislation to case law and doctrine that influence smart contracts and the blockchain technology
- understand the economic and technological foundations of the application of smart contracts and the blockchain technology and the relevant legal context
- assess legal and economic issues in relation to use of smart contracts and the blockchain technology
- discuss and critically evaluate suggestions on legal issues relating to smart contracts and the blockchain technology.

#### Judgement and approach

Students shall train inter-disciplinary working methods with colleagues from different cultural backgrounds and of the opposite gender. They shall simultaneously perform independent research and take full responsibility for developing their own understanding of the relevant material and theories.

To pass the examination the students shall be able to consider and discuss legal economic and technical implications of smart contracts and the blockchain technology.

### Course content

The course explores the legal implications of blockchain and distributed ledger technologies, with a focus on cryptocurrencies (Bitcoin), smart contracts and other financial use cases. The class will feature a close exploration of the network and cryptographic features of Bitcoin, the first and most utilized cryptocurrency built on the blockchain. The class will then review blockchain technology more broadly in order to appreciate its suitability (advantages and limitations) for a variety of 'smart contract' use cases, including payments, swaps and other derivatives, and land transfer. A number of biomedical blockchain use cases will also be examined.

### Course design

Teaching is provided in the form of lectures and seminars. Apart from the assigned literature, the course requires individual literature studies.

### Assessment

The assessment is based on:

- A research memorandum (50% of the final grade).
- A use case poster (a poster showing the practical usage of smart contracts) (30% of the final grade).
- Active class participation (20% of the final grade).

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Subcourses that are part of this course can be found in an appendix at the end of this document.

### Grades

Marking scale: Fail, Pass, Pass with credit, Pass with distinction.

All grading criteria rest on the baseline set up for the grade B. Criteria for the grade BA are additional to those for the grade B. Criteria for the grade AB are additional to those for the grade BA. Each grade criterion consists of a qualitative and a quantitative dimension. To be awarded a specific grade, the grade criterion must be satisfied in its qualitative as well as its quantitative dimension.

Grading criteria are applied to all dimensions listed as "Learning outcomes" in this syllabus. By way of example, an AB would presuppose that the student's examination reflect her or his mastery with regard to knowledge and understanding, skills and abilities and values and attitudes as laid down in the syllabus as "learning outcomes". Grading is done using Qualitative and Quantitative criteria. The Quantitative criterion reflects how well read the student is whereas the Qualitative criterion reflects how well read the student and put it in a proper context.

### **B** – Basic command

In order to pass the student must show sound knowledge about smart contracts and the blockchain technology and its interaction with legal frameworks.

The student has to show a fair ability to:

- Analyze smart contracts and the blockchain technology in its legal framework.
- Show an ability to identify legal problems independently, critically and creatively to systematize arguments.
- Analyze, compare and assess theoretical and practical problems within the context of smart contracts and the blockchain technology.

The student must show a fair ability to analyze legal implications of smart contracts and the blockchain technology and its interaction with the business world, both in an oral and a written form and an ability to work both individually and in groups.

#### **BA – Advanced command**

In order to achieve this grade the student must show an in-depth knowledge about knowledge of smart contracts, the blockchain technology, and its interaction with legal frameworks.

The student has to show good ability to:

- Aanalyze smart contracts and the blockchain technology in its legal and economic framework.
- Show an ability to identify legal problems independently, critically and creatively to systematize arguments.
- Analyze, compare and assess theoretical and practical problems within the context of smart contracts and the blockchain technology.

The student must show a good ability to analyze legal implications of smart contracts and the blockchain technology and its interaction with the business world, both in an oral and a written form and an ability to work both individually and in groups.

#### AB – Mastery

In order to achieve the highest grade the student must show outstanding in-depth knowledge about smart contracts and the blockchain technology, and its interaction with legal and economic frameworks.

The student has to show excellent ability to:

- Analyze smart contracts and the blockchain technology in its legal and economic framework.
- Show an ability to identify legal problems independently, critically and creatively to systematize arguments.
- Analyze, compare and assess theoretical and practical problems within the context of smart contracts and the blockchain technology.

The student must show a excellent ability to analyze legal implications of smart contracts and the blockchain technology and its interaction with the business world, both in an oral and a written form and an ability to work both individually and in groups and take initiatives in developing the legal discussion.

### Entry requirements

Passed examination in courses corresponding to the first term of the Master's programme equivalent to 30 credits.

### Further information

The University views plagiarism as a very serious academic offence, and will take disciplinary actions against students for any kind of attempted malpractice in connection with examinations and assessments. The penalty that may be imposed for this, and other unfair practice in examinations or assessments, includes suspension from the University.

Applies from V18

1801 Smart Contracts, Blockchain och FinTech, 7,5 hp Grading scale: Fail, Pass, Pass with credit, Pass with distinction