Artificial Intelligence , Deep Learning

About the course

Subject	Datalogi / Informatik / Mathematical Computer Modelling
Activitytype	master course
Teaching language	English
Registration	Tilmelding sker via stads selvbetjening indenfor annonceret tilmeldingsperiode, som du kan se på Studieadministrationens hjemmeside Når du tilmelder dig kurset, skal du være opmærksom på, om der er sammenfald i tidspunktet for kursusafholdelse og eksamen med andre kurser, du har valgt. Uddannelsesplanlægningen tager udgangspunkt i, at det er muligt at gennemføre et anbefalet studieforløb uden overlap. Men omkring valgfrie elementer og studieplaner som går ud over de anbefalede studieforløb, kan der forekomme overlap, alt efter hvilke kurser du vælger. Registration through stads selvbetjening within the announced registration period, as you can see on the Studyadministration homepage. When registering for courses, please be aware of the potential conflicts between courses or exam dates on courses. The planning of course activities at Roskilde University is based on the recommended study programs which do not overlap. However, if you choose optional courses and/or study plans that goes beyond the recommended study programs, an overlap of lectures or exam dates may occur depending on which courses you choose.
Detailed description of content	Introduction to machine learning in general and to artificial neural networks in particular; theory of deep learning; research trends; verview of software platforms; programming exercises. Developing running applications of deep learning.
Expected work effort (ects-declaration)	5 ECTS
Course material and reading list	See moodle for the latest details. We *expect* to use the textbook "Deep learning with Python" by François Chollet. Manning, 2018. However, this depends on the availability of the book. Course notes and articles.
Evaluation- and feedback forms	See moodle for the latest details. We *expect* to use the textbook "Deep learning with Python" by François Chollet. Manning, 2018. However, this depends on the availability of the book. Course notes and articles.
Administration of exams	IMT Studieadministration (imt-studieadministration@ruc.dk)
The responsible course lecturer	Henning Christiansen (henning@ruc.dk)
ECTS	5
Learning outcomes and assessment criteria	- Knowledge - Knowledge and understanding of a specific Informatics subject area. - A comprehensive overview and understanding of the general principles behind the subject area's theory, methods and technological solutions. - Skills: - Selecting and applying appropriate methods and techniques from the subject area. - Kompetencer: - Being able to work with IT issues, both independently and in teams.

	● Being able to critically and systematically learn new approaches to the subject area and thereby independently take responsibility for one's own professional development.
Overall content	With the topic of their own choosing, the student has the opportunity to specialise in a specific subject area where the student acquires knowledge, skills and competences in order to translate theories, methods and solutions ideas into their own practice in relation to the design and implementation of IT applications. Subjects can include: IT strategy, IT project management, sourcing of IT projects, IT and enterprise architecture, design and innovation in IT organisations
Prerequisites for participation	Currently no data from curriculum.
Prerequisites for participation in the exam	Currently no data from curriculum.
Teaching and working methods	Normal class instruction, i.e. a mix of lecturer presentations, student presentations and practical work on specific tasks. Lecture with exercises. Is stated in the description at kursus.ruc.dk.
Type of activity	Elective course
Form of examination (P1)	Individual oral exam based on an assignment. The exam is conducted as a dialogue. There may be posed questions in any part of the curriculum. The character limit of the written product is maximum 48,000 characters, including spaces. The character limits include the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices. Time allowed for exam including time used for assessment: 20 minutes. The assessment is an overall assessment of the written product(s) and the subsequent oral examination. Permitted support and preparation materials for the oral exam: All. Assessment: 7-point grading scale. Moderation: Internal co-assessor.
Form of Re-examination (P1)	Samme som ordinær eksamen
Exam code(s)	Exam code(s) : U40868

Course days:

Hold: 1

Artificial Intelligence and Deep Learning (INF)

Time	11-09-2020 12:15 til 11-09-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	18-09-2020 12:15 til 18-09-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	25-09-2020 12:15 til 25-09-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	02-10-2020 12:15 til 02-10-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	09-10-2020 12:15 til 09-10-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	16-10-2020 12:15 til 16-10-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	23-10-2020 12:15 til 23-10-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	30-10-2020 12:15 til 30-10-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	06-11-2020 12:15 til 06-11-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning (INF)

Time	13-11-2020 12:15 til 13-11-2020 16:00
Location	10.1-025 - teorirum (32)
Teacher	Henning Christiansen (henning@ruc.dk)

Artificial Intelligence and Deep Learning - Hand-in (INF)

Time	20-11-2020 10:00 til 20-11-2020 10:00
Forberedelsesnorm	Ikke valgt
Forberedelsesnorm d-vip	Ikke valgt

Artificial Intelligence and Deep Learning - Oral Examination (INF)

Time	04-01-2021 08:15 til 05-01-2021 18:00
Forberedelsesnorm	Ikke valgt
Forberedelsesnorm d-vip	Ikke valgt
Location	08.1-031 - grupperum (6)