Data Science for Business Intelligence

7.5 University Credits
Data Science is probably the hottest buzzword of the 21st century. Nowadays, companies as well as governments have equal interest in data science. Data science is a combined study of various topics together including: databases, warehousing, data architectures, business analytics, data mining, big data and more! As a matter of fact, data science supports – if not compliments - business intelligence.

From being an executive support tool, Business intelligence (BI) has changed its role to be the primary cross-functional system implemented in almost all medium and large companies to support the decisions made at all management levels. Additionally, BI tools and techniques are also used to support the day-to-day operations in various organizations.

This course is designed to provide participants with a mix of theory and practice. Basic concepts of data science will be presented as foundation, as well as R Programming as one of the most important skills/tools that a data scientist should have. The course will also provide an opportunity for hands-on experience with data science tools and techniques through using easy-to-use software (R Programming) and cases.

You will learn:
- The basic foundation of data science
- Hands-on tools such as R-programming
- Business intelligence applications

The goal of the course is the understanding of the new domain in terms of basic concepts, technology used, as well as context of using. Additionally, you will learn how to run and manage a big data project.

FACTS
Starting date
Block 1: late September 2016
Case study: Between the blocks
Block 2: late October 2016

Price
29 000 SEK (excl VAT)
Register on-line on:
www.ltubusiness.se/utbildningar

Location
Luleå

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PROGRAM OVERVIEW

Content
What is data science; understand the different types of data e.g., structured, semi-structured, and unstructured data, massive data sets, social media data, new opportunities and challenges

Big data, concepts and technologies, map-reduce & the Hadoop platform, big data applications

Business intelligence (BI); methodology and concepts, computerized support of managerial decision making

Business analytics (BA); methods and tools, online analytical processing (OLAP), data visualization and multidimensionality, web intelligence and web analytics, business analysis versus analytics

Monetization of data

Data Science in action

Model and solve big data problem using R Programming.

Methods of Instruction
Lecturing, discussions and hands-on labs.

Course Material
Course material will be provided in e-copy. Data will be provided electronically.

University credits
Upon completion of the course it is possible for the participant to apply for 7.5 university credits (ECTS).

Who will benefit from attending this course:
- Business Analyst
- Data Scientist
- Data Mining Specialist
- Decision Support Specialist
- Business Managers
- IT Consultants
- Senior Business Intelligence Staff
- Mining researchers
- Anyone who has interest in “torturing data till they confess”

Find detailed information about course content on: www.itubusiness.se/utbildningar

Instructor
Ahmed Elragal is an Associate Professor of Information Systems at Luleå University of Technology (LTU). Prof. Elragal research is focused on big data (analytics), business intelligence, and enterprise systems. Prof. Elragal has obtained his PhD in 2001 in Decision Support Systems (DSS) from the University of Plymouth, UK. He has over fifty research articles published at international outlets e.g., Journal of Enterprise Information Management, International Journal of Enterprise Information Systems, ECIS, HICSS, AMCIS, etc. He is a member of the editorial board of I & M and UIBR journals. He is the Associate Editor of the International Journal of Information Systems and Project Management (IJISPM). In 2010, he has obtained KDD nuggets Teradata-funded award entitled “Best BI Case Study”. In 2013, he has co-authored Pearson’s flagship MIS textbook “MIS: Managing the Digital Firm - AWE” by (Laudon, Laudon, and Elragal). He has more than fifteen years of consulting experience, serving different companies including projects with: SAP, Teradata, Mobinil [an Orange Subsidiary], Hyperone [retailer]; mainly in the areas of big data, business intelligence and enterprise systems.