

Module title Solving Business Cases using Applied Data Analytics			
Module code tbd	Level Bachelor (B.Sc.)	ECTS credits 5	Duration 4 week block course + virtual lectures
Module instructor Jonathan Whitaker, University of Richmond	Lecture type Guided tutorial sessions (virtual and in-person)	Prerequisite(s) Intro to computer programming	Grading Weekly assignments, final project
About the instructor Jonathan Whitaker is an Associate Professor at the University of Richmond, ranked by the <i>Wall Street</i> <i>Journal</i> at #66 out of 800+ universities in the U.S. Prior to his academic career, Dr. Whitaker worked in consulting and professional services with A.T. Kearney and Price Waterhouse (PwC), including projects in North America, Europe and Asia. His consulting clients and academic partners have included <i>Forbes</i> Global 2000 firms such as (in alphabetical order) Alfa Laval, Bank of America, Capital One, CarMax, Charoen Pokphand (Thailand), Disney, DuPont, Electrolux, General Motors, Goodyear, HCA Healthcare, Rolls-Royce, Saudi Telecom, SKF, Volvo CE, and WestRock.			
Introduction This course will use a case-based approach, in which students apply SAS® data analytics software to solve business problems in multiple industries and corporate functions. SAS® software is used by leading European firms such as Allianz, HSBC, ING, Lufthansa, Nestle, Rabobank, Vodafone, and Volvo.			
 Course Outcomes A student who completes this course will: Skills & Abilities: Achieve proficiency with SAS® software Generate business insights and recommendations based on data analysis Knowledge & Understanding: Apply SAS® software knowledge in a comprehensive business case environment Case studies include multiple industries and corporate functions 			
Format This course will be structured into two modules. In Module 1, the course will meet remotely via Moodle once per week (~90 minutes) from mid-March to late-May. In Module 2, the course will meet four times per week (~90 minutes) during the first four weeks of June. Total classroom time in Module 1 about 18 hours, total classroom time in Module 2 about 24 hours. Module 1 will focus on basic SAS® programming skills, and Module 2 will focus on applying SAS® programming skills in a business case setting. Each virtual and in-person class meeting will include a review of the relevant SAS® programming concepts, and application of the SAS® programming concepts by following as the instructor performs examples.			
Assessment Module 1 and Module 2 will include homework assignments, in which students will write and submit SAS® code for evaluation. Each homework assignment will be designed to require about 2-4 hours. After the completion of Module 2, students will be assigned a final project that will be designed to require 10-20 hours over a two-week period.			
 Content Module 1 will address fundamental SAS[®] functionality including loading data, formatting data for analysis, performing analysis, and reporting results. Module 2 will apply SAS[®] functionality in industry settings such as [insurance, manufacturing, retail] and corporate functions such as [forecasting, human resources, internal audit]. 			
 Textbook/software Learning SAS by Example: A Programmer's Guide. Ron Cody. ISBN-13: 978-1635266597 Applying Data Science: Business Case Studies Using SAS. Gerhard Svolba. ISBN-13: 978-1607648895 Every student will be required to have a computer available for use during the course, and will be required to load the free SAS® University Edition software on their computer. More details on SAS® University Edition can be found at https://www.sas.com/en_us/software/university-edition.html 			

Note: this is not the official course descriptor according to the "Studien- und Prüfungsordnung" (SPO)