Fernando Bação

Fernando Bação is currently Associate Professor at the NOVA Information Management School (NOVA IMS), Universidade Nova de Lisboa, where he is Associate Dean, Director of the MagIC Research Center and Director of the Doctoral Program in Information Management. He was visiting professor at the Institute for Geoinformatics at the University of Münster, Germany and at the Instituto Nacional de Pesquisas Espaciais (INPE), Brasil. He holds a PhD in Information Management and his research interests include knowledge discovery, with particular emphasis on neural networks, and the role of business analytics in leveraging information for innovation and competitive advantage. His research work has appeared in scientific journals such as como Information & Management, Information Systems Frontiers, The Internet and Higher Education, Softcomputing, Journal of Educational Technology & Society, Computers in Human Behavior, among others and received awards for its impact. He advises several companies on issues related with Data Mining and Business Analytics. Additional detail can be found http://www.novaims.unl.pt/fbacao/.

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COURSE UNIT AIMS (Purpose of the course using broad, general terms)

"Anyone in the marketing world knows how tough it can be to get noticed by the right person. Competition is fierce. The consumer market is saturated with products, brands, and businesses that take up space and the "attention market share" from millions of customers every day." This is especially true in the context of the Web. Whether your website is a storefront, an informational site, or a mixture of both Web Analytics constitutes a fundamental skill if you want to standout and get in touch with your target audience.

This is a technical course that empowers students to deal with online marketing and customer experience in a non data-starved environment as the web is. The student will develop practical activities where the visitor characteristics and behavior are analyzed.

The Web Analytics course is focused on providing the student with the understanding of the main methods and tools available in this context. Due to its popularity and usefulness Google Analytics

will be our tool of choice. The course seeks to provide a set of methods/tools to ensure student will be able to monitor and measure the effects of a website in the business.

The course does not assume familiarity of the student with Web Analytics, but it is highly recommended that the student understands the fundamentals of e-commerce, and has at least intermediate computer literacy/skills (no programming skills needed).

COURSE UNIT CONTENT (Main topics covered in the course)
- CUC1. Web Analytics and Analytics Overview.
- CUC2. Web traffic and business.
- CUC3. Web analytics 1.0, 2.0 and 3.0.
- CUC4. Standard Metrics, different metrics to measure the success your website.
- CUC5. Data Sources, available methodologies to capture data and accuracy issues.
- CUC6. Descriptive Models.
- CUC7. Predictive Models.
- CUC8. Digital Advertising, pricing models, conversion funnel and remarketing.
- CUC9. Google Analytics.

LEARNING OBJECTIVES (Upon completion of this course, students should be able to):
A. Knowledge and Understanding
- LO1. Discuss the most relevant ideas and concepts associated with Web Analytics;
- LO2. Be able to explain the most used standard metrics in Web Analytics;
- LO3. Describe the most common data sources for web analytics;
- LO4. Describe a conversion funnel and its implications;
- L05. Understand how to develop descriptive models;
- L06. Understand how to develop a predictive model;

B. Subject-Specific Skills
- LO7. Generate web analytics reports;
- LO8. Create a segmentation, being able to explain the options used and explaining alternative, whenever available;
- LO9. Launch an Ad Word campaign;

C. General Skills
   LO8. Understand the importance of Web Analytics and the opportunities that can be created through its proper deployment.

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS
The course units contents (CUC) from the syllabus cover the learning objectives (LO) as follows:
   a. CUC1 and 3 cover the LO1
   b. CUC2 covers LO4
   c. CUC4 covers the LO2

d. CUC5 covers the LO3
e. CUC6 covers the LO5
f. CUC7 covers the LO6
g. CUC9 covers the LO7
h. CUC8 covers the LO7 and LO8
i. CUC1, 2, 3, 4, 5, 6 and 7 cover LO8

TEACHING AND LEARNING METHODS.
Lectures and class discussions (students are expected to actively participate in the discussions)
Practical classes (computer laboratory)
Team practical work (group projects)

ASSESSMENT
Course project and Individual essays **70%.** Minimum (Overall) Grade **8**/20
       4 Individual Essays (5% each – no minimum grade)
       1 Group Project (30% Maximum number of group members 3 – no minimum grade)
Final examination **50%.** Minimum Grade **8**/20

DEMONSTRATION OF THE COHERENCE OF THE TEACHING METHODS WITH COURSE LEARNIG OBJECTIVES

Taking into consideration the fundamental purpose of this course, the learning method most suitable to this course is:
- learning-by-examples (demonstration)
- learning-by-doing (practice by doing)

Note: The learning method most suitable to this course can be a mix of different learning methods and not one method exclusively. The teaching methodologies adopted are intended to stimulate the students' ability to go from theory to practice, through the apprehension of concepts, tools and methodologies, which are explained in the course. Thus, they contribute to the process of individual and group learning and develop critical analysis.

BIBLIOGRAPHY.
- Kaushik, A., Web Analytics 2.0. Wiley Publishing, Inc., Indianapolis, Indiana, 2010. ISBN: 978-0-470-52939-3
- Linoff, G., Berry, M., Data Mining Techniques: For Marketing, Sales, and Customer Relationship Management, John Wiley & Sons Inc, 2011. ISBN13 9780470650936
- Hu, Yu Jeffrey. "Performance-based pricing models in online advertising." Available at SSRN 501082 (2004)**.**

RESOURCES.