

## Content

### **Introduction to the course**

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## Introduction to the course

### INTRODUCTION

Before you start studying the course Business Intelligence, this introduction informs you of the course's purpose, the design of its material, how to study the course, and how it is graded. This workbook contains no study material, but instead gives practical and technical information that provides insight into the nature and structure of the course and helps you study it.

#### 1 Function of the course

This course's subject is Business Intelligence, of which managerial, analytical and ethical aspects are discussed. The course describes a number of common models and approaches for different aspects of Business Intelligence, what factors to look for in situations Business Intelligence can be applied to, and what solutions from the models and approaches are most appropriate for a given situation. You study the course material and apply the acquired knowledge to case studies in the form of assignments.

The course has a workload of 110 hours net. It is part of the Master of Business Process Management and IT and the Masters of Computer Science programs of the Faculty of Management, Science & Technology.

#### 2 Course content

##### 2.1 COURSE MATERIAL

#### Textbooks

In this course, you study sections from two textbooks: one in English and one in Dutch:

– *Business Intelligence: A Managerial Perspective on Analytics, 3rd Edition* by Ramesh Sharda, Dursun Delen and Efraim Turban (Pearson, 2013)

– *Business Intelligence en datawarehousing, 2e editie* by Karien Verhagen (Pearson, 2011).

The first book, which we call here 'the Sharda book', or 'Sharda', forms the core of the reading material for his course. It takes an academic approach and goes into depth for all the Business Intelligence models and solutions it presents. The second book, 'the Verhagen book', or 'Verhagen', provides a readable introduction and overview of the concepts of this course.

#### Workbook

This course's *workbook*, which you are now reading, indicates which parts of the textbooks you are to read and when to read them. It also introduces short written assignments with some of the reading assignments.

<i>Assignment bundle</i>	The <i>assignment bundle</i> with the five tasks and the example case <i>Radio Good</i> , in which elaborate on the task descriptions.
<i>Studienet</i>	In addition to general information about this course, the course's <i>Studienet</i> website also provides the specific instructions for each written assignment, and the forms that students fill in while executing the tasks
	<p>2.2 PREREQUISITE KNOWLEDGE</p> <p>This course requires no previous knowledge beyond that needed to start any course in the Masters of Business Process Management and IT or Computer Science programs.</p> <p>2.3 COURSE LEARNING OBJECTIVES</p> <p>The learning objectives presented here describe the knowledge, insight and skills you should acquire by from this course. After studying this course, we expect that you are able to</p> <ol style="list-style-type: none"> <li>1 consistently use the BI terminology</li> <li>2 recognize and understand the BI architecture used in the company (databases, data warehouses, other data forms)</li> <li>3 establish a clear position about BI in business activities</li> <li>4 perform an audit for a company that involves all aspects of Business Intelligence       <ol style="list-style-type: none"> <li>a relate BI application to strategic goals of the organization</li> <li>b perform a lightweight requirements elicitation and analysis of Business Intelligence applications in a given company</li> <li>c ask the right questions to data scientists to ensure that mining results are reliable and appropriate</li> <li>d provide convincing advice to a company on possible BI application for a given goal</li> <li>e give a short presentation about that advice</li> <li>f account for the social aspects of Business Intelligence, such as privacy, sustainability and law, during the development and execution of a Business Intelligence solution</li> <li>g appreciate that BI is costly and multidisciplinary and needs to be handled in a complex and systematic, and often iterative, manner</li> </ol> </li> <li>5 keep up-to-date with the topics and developments that are relevant for Business Intelligence.</li> </ol> <p>2.4 COURSE STRUCTURE</p>
<i>Blocks</i>	The course consists of six <i>blocks</i> , seventeen learning units, including four audit tasks, the last of which includes a final presentation. Each block takes about eighteen hours and you have three weeks to study and carry out. The <i>learning units</i> focus primarily around assigned <i>readings</i> from the textbooks. By studying these readings, the student has the knowledge needed to carry out the assignments and give the presentation. Most of the reading study occurs earlier, while more work on executing the audit occurs toward the end of the course. For example, the last three of the four audit tasks are each in one of the last three blocks.
<i>Learning units Readings</i>	
Textbooks	The <i>Verhagen</i> book provides a readable general introduction to the topic, and forms most of the earlier readings. The <i>Sharda</i> book, on the other hand, goes into more academic depth about the topics in Business Intelligence.



The readings from Sharda are more evenly spread than those from Verhagen. The structure of the Sharda book largely determines the structure of the progression of these learning units.

*Audit  
Tasks*

The assignments and final presentation test the student's knowledge acquired during the readings. They involve an *audit* that each student carries out. Each *task* is the execution of one phase of the audit. Each student performs task 1 on an individual basis. The tasks after the first are team efforts. At the end of the course, the student teams communicate their audit results as a whole in a final *presentation*, which is the core of the fifth and last task. The teacher assesses these assignments and presentations. Students get feedback on task 2 from the teachers to ensure they understand the audit. Assessment of task 1, 3, 4 and 5 (presentation and answers to the oral questions) help determine the final mark.

*Presentation*

Task one:  
Planning

The first task sets up and plans each audit. It has three parts. In the first part of task 1, each student studies the text Audit for Business Intelligence in the assignment bundle and then finds an organization to propose carrying out an audit on. The second assignment is a report about that organization. The third part of task 1 is determining if the organization is a good candidate for the IA4BI project. In the first tutoring session, in which students and teacher(s) meet face-to-face, the teacher chooses which organizations to audit and forms teams to audit them. The first parts of task 2 document the teams, roles and planning with which each student team carries out the following assignments.

Core tasks

Before the start of the second task, the students will have studied all readings from Verhagen and most of the readings from Sharda, and will thus have the knowledge required to carry out the rest of the audit. Audit task two researches and documents the goals of the audit organization and the BI currently used. The third task analyses and proposes additional BI solutions based on the adequacy of the organizations existing data sources. In the fourth task, students give their personal reflection on the learning process and outcomes. Finally, task five lets students wrap up their involvement in the course by presenting the results of their audit, including the assignments, and engage in discussion about them.

### 3 Study instructions

#### 3.1 MANNER OF STUDY

Both textbooks contain material that this course covers. The course is divided into self-contained blocks and learning units. The workbook indicates what to read from the textbooks for each learning unit, and provides extra explanation where necessary.

In addition, each learning unit contains a brief introduction to the content. They also present the learning objectives that indicate what you should be able to do after studying the unit.

*Example of a study assignment*

The term '*Reading assignment*' in the margin indicates that the adjacent text in the workbook provides instructions on what part of a textbook you should study at that point.

### 3.2 SUPERVISION AND STUDIENET

The supervision in this course largely occurs through the course's Studienet website. There you can ask questions via the discussion group. You will also find news about the course, web links, assignments, errata and information about the oral exam.

In addition, Studienet hosts a series two online tutoring sessions during each cycle, and there are two face to face tutoring sessions. One before the start of task 2, in which groups are formed and the teacher gives oral explanation about the audit and BI-methods and a demo with a BI tool. The second session, at the end of the course, is where the student teams give their presentations. One can find more information about these meetings on the course's Studienet website.

### 3.3 STUDY LOAD

Study means: read intensely and structure the materia

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Read means: just read and remember the headlines

The course has a total workload of about 110 hours net. The beginning of each unit has an indication of that learning unit's workload. In several places, you will find optional parts, such as reading literature as additional background information or perform optional tasks. We would like to stress that these parts do not fall within the specified study. Each stated workload is an indication of how long the average student needs to perform the task. In study unit 4, where you read the first chapter of the Sharda book, we indicate in detail which parts you should study or read, and for which parts you only need to know that the book has them in case you want more details. The Sharda book provides many examples. Be aware that companies only like to show their success stories. Sometimes these American examples sound a bit as 'hallelujah' stories to our Dutch ears.

## 4 Form of assessment

The information in this section is valid at the appearance of the course. The general form of the course may change over time. Any such changes will be announced on Studienet.

Participation in the course Business Intelligence is assessed through the audit assignment, which consists of five tasks, and a final presentation, after which the teacher asks questions. The complete instructions for the assignments and for preparing for the final presentation are in the assignment bundle.

After submission of task 1, you will receive some quick feedback and an assessment consisting of 'satisfactory' or 'unsatisfactory'. In the case of an unsatisfactory assessment, you will receive a replacement assignment and a chance to complete it again. After submission of task 2 you will receive feedback to process during task 3. Tasks 3, 4 and 5 are tasks used for the final assessment.