# Seminar's teaching plan
ref: UDACPC_2026_S_0005_SeminarTeachingPlan
version 0.1.0 - 2026-01-05

| Syllabus | Batchelor in computer science |
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| Module | 8 - Data analysis and project management | | |
|---|---|---|---|
| Seminar | BINFO2M8PM - Project management | | |
| Semester | 4 | Academic course | 2025 - 26 |
| Professor<br>e-mail | Alexander Beening<br>abeening@uda.ad | | |
| Mode | Face-to-face and virtual | | |
| Teaching language | English | | |

## 1. Seminar summary

This seminar is about the practical management of companies in all its aspects. It develops the business environment with key themes like the mission, the vision and the strategic plan. The process map and its business process specifications will be developed in detail, using modeling standards.

Today, companies move ahead by constantly adapting their business plan. In practice, this is done by means of corporate projects which alter the macro process map and its business processes.

Thus, this seminar is about the company's strategy and corporate projects, detailing the project definition, preparation and management techniques, using methodologies, planning techniques and key performance indicators.

A solid knowledge of the English language in all its aspects is strongly recommended.

As a conclusion, the seminar will provide the skills to develop the right actions in today's companies to determine its strategy and the projects which allow the company's evolution.

## 2. Seminar contents

**1 Introduction**

**1.1** The company, mission, vision, strategy and the process map

**1.2** The company as a factory. Business analysis and process outcomes

**2 Business processes**

**2.1** The business process. Nature, structure, instances and performance measurement

**2.2** Top-down approach: Designing the process map and high-level modeling

**2.3** Process modeling principles. Standards UML and BPMN-2

**3 Modeling business processes**

**3.1** Business process modeling facets

**3.2** The dynamic facet: BPMN-2: Modeling and notating a process

**3.3** The static facet: The process and its information. Strategic entities

**3.4** The communications facet: The communications diagram

**3.5** Integrating the processes in information systems

**3.6** Tools for process modeling. Recommended applications

**4 The project**

**4.1** The project in the company. What is a project?

**4.2** Creating the project. How to start?

**4.3** Preparing the project. Organization and definition

**4.4** Grouping projects in programs. How to establish corporate programs?

**4.5** Program management principles. Periodic or continuous? Recommended tools

**5 Documenting the project in a model**

**5.1** Why dedicating time to explain a project?

**5.2** Scope and targeted audience

**5.3** Structure and contents of the project model

**5.4** Project model evolution. Content management systems

**6 Project planning, best practices and tools**

**6.1** Project planning basics

**6.2** Human resource management in project planning

**6.3** Tools for project planning. Overview and usage

**7 Project execution and follow up**

**7.1** Project management phases

**7.2** Two policies to execute a project: "Tight" and "Loose"

**7.3** Project management standards, methods and tools. Usage in the real world

**7.4** Measuring project execution with key performance indicators

**7.5** Document management systems in project management

## 3. Seminar activities

### 3.1. In general

The course will deploy a series of activities to assess the acquired knowledge. The student will choose one of the following options:

- **AC**: Continuous evaluation
- **AF**: Final evaluation

The activities, deployed during the course are categorized in the following types:

- **Practical work (code: "Pw"):**

  An activity which must be worked out by the student(s) and delivered as a formal collection of documents. The practical work must be presented by the student(s) to one or more teachers in a personal session, planned by the teacher. All activities of this category are mandatory for both the continuous and the final evaluation method.

- **Exam (code: "Ex"):**

  An exam, to be performed personally at the university's premises. The student has to respond a series of questions and situations, presented in the exam's document or in an oral exam. This activity is used exclusively in the continuous evaluation.

- **Final exam (code "ExF"):**

  An exam, performed as a final assessment in the final evaluation. The student has to perform both a written and oral exam, which will be spread over the dat, the exam takes place. This activity only replaces the exams "Ex" in the continuous evaluation.

- **Challenge (code "Ch"):**

  The **Challenge** or in Catalan "*Repte*" is a module-wide activity where the student has to deploy the acquired knowledge of all three seminars. Principally, the challenge is a mission to complete similar to a practical work. The results must be presented to a committee, composed at least by the three teachers of each seminar.

Please note that the used codes for evaluation option and activities will be used in the continuation of this document.

Each activity has a weight for each learning result, mentioned in the following chapters.

## 3.2. Continuous assessment

The continuous evaluation is used to be assessed during the course's realization. In practice the student has to perform **three in-person exams**, spread out over the course's timeline. Beside this, **two practical exercises** have to be realized, as well as the Challenge:

| Continuous evaluation weights, activities in relation to learning results | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Pw1 | Pw2 | Ex1 | Ex2 | Ex3 | Ch | Total |
| **BInfo-E001-18**<br>Knows a general methodology for project management in a company, the strategic plan and the standards for the modeling of business processes | 40% | 0% | 30% | 30% | 0% | 0% | 100% |
| **BInfo-E001-19**<br>Specifies and plans the various phases of a project and manages the project life cycle following a reference guid | 0% | 55% | 0% | 15% | 30% | 0% | 100% |
| **BInfo-E001-20**<br>Applies and uses the knowledge acquired for project management participating in a specific project | 0% | 15% | 0% | 5% | 5% | 75% | 100% |

## 3.3. Final assessment

The final evaluation is used to be assessed at the end of the course's realization. In practice the student has to perform both practical work activities, organized during the course as well as the challenge. A final exam ExF has to be performed during the last two weeks of the seminar.

The following table specifies the repartition of the results per learning result:

| Final evaluation weights, activities in relation to learning results | | | | | |
|---|---|---|---|---|---|
| | *Pw1* | *Pw2* | *ExF* | *Ch* | *Total* |
| **BInfo-E001-18**<br>Knows a general methodology for project management in a company, the strategic plan and the standards for the modeling of business processes | 40% | 0% | 60% | 0% | 100% |
| **BInfo-E001-19**<br>Specifies and plans the various phases of a project and manages the project life cycle following a reference guide | 0% | 55% | 45% | 0% | 100% |
| **BInfo-E001-20**<br>Applies and uses the knowledge acquired for project management participating in a specific project | 0% | 15% | 10% | 75% | 100% |

## 4. Seminar resources

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**Bibliography**

**Teacher's resources**

- Presentations for each main cycle
- Practical cases
- Support documents, like a detailed course planning. See document list in document `UDACPC_2026_S_0000_DocumentList`, available in the seminar's web site

**References and bibliography:**

**General utility references:**

***Capterra - Find better software now***
A site to search, compare and choose the right software in a huge number of categories
URL: https://www.capterra.com

**Project management resources:**

***Florida Tech (2016):***
4 types of Project Management KPIs
URL: https://www.floridatechonline.com/blog/business/key-performance-indicators-in-project-management/

***Florida Tech (2016):***
5 phases of project management
URL: https://www.floridatechonline.com/blog/project-management/best-practices-in-the-5-phases-of-project-management/

***Project Management Institute:***
How do you know the status of your project?
URL: https://www.pmi.org/learning/library/know-status-project-monitoring-controlling-5982

**Business process modeling:**

***BPMN 2.0 - Introduction to the Standard for Business Process Modeling***
Author: Thomas Allweyer
ISBN: 978-3-7412-1978-8

***Object management Group: Business Process Model And Notation***
OMG document number: `formal/2011-01-03`
URL: https://www.omg.org/spec/BPMN/2.0/

***Introduction to BPMN-2***
Author: Jim Arlow & Ila Neustadt
ISBN: Unknown
URL: https://www.clearviewtraining.com/introduction-to-bpmn-2.html

***Bonitasoft - Understanding Business Process Automation***
Author: Loic BOCHER and Miguel Valdes Faura
White paper
URL: https://www.bonitasoft.com/library/understanding-process-automation

***Bonitasoft - The Ultimate Guide to BPMN-2***
Author: Miguel Valdes Faura
e-book, available for download
URL: https://www.bonitasoft.com/library/ultimate-guide-bpmn

***Visual Paradigm Online - BPMN 2.0 Poster***
PDF document, available for reading and downloads
URL: https://online.visual-paradigm.com/community/book/bpmn-2-0-poster-zic79d33o

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## 5. Remarks about the seminar

- Controls or exams are only repeated in exceptional cases. In order to be able to opt for the repetition of a control, the reason for the absence must be justified by presenting a supporting document.

- The due date for practical work delivery cannot be exceeded

- The practical work activities must be delivered and presented personally by the student either during a teaching session or by appointment

- The exams (Ex), both for the continuous and final evaluation are in-person events and will take place during the teaching sessions. The dates will be specified in the detailed course calendar in document: `UDACPC_2026_S_0006_DetailedCourseStructure`

- The final exam (ExF) will be held at the date, indicated in the detailed course planning, but can be changed during the seminar for organizational reasons

- The realization of both practical work Pw1 and Pw2 is mandatory and required to validate the seminar.

- For each practical work the minimum note is 30 / 100: All notes less than this score will be set to 0 / 100.

- All deliveries will be performed in the UdA campus system in the indicated format(s), specified in the practical work document

- The UdA's campus system does not accept files which size exceeds 50 MBytes