Course: Management Information Systems — credits: 5

Course code	IFCB19MIS2C
Name	Management Information Systems
Study year	2026-2027
ECTS credits	5
Language	English
Coordinator	B.M.S. Ruppel
Modes of delivery	Assignment Individual supervision Lecture Tutorial
Assessments	Management Information Systems - Other assessment

Learning outcomes

1. The student analyses and determines which information and data is required to control, govern and improve the organization.
2. The student designs and develops a database based on functional demands and standardized techniques.
3. The student advises on the choice for a relevant IT system which is focused on both financial as non- financial information as well as international regulations and compliance. The student also advises on the internal design of the system.
4. The student performs an analysis on the required management information (both recurring as well as specific) and is able to store, create and present this information in a visualization tool which incorporates geographical segregation.
5. The student understands the functioning of computerized algorithms, is able to apply machine learning techniques on a dataset and give an advise based on the outcomes.
6. The student creates a mixed integer linear programming solution that creates an optimal solution for a given case.

Content

In this course students will develop the essential skills to leverage their data analytics skills. The course starts with how to collect data and how to design a database to store various sources of relational data. After this students will learn how to select IT systems for international organization and what factors are involved in selecting the right program.
Students will also learn how to visualize data in a dashboarding tool while creating a smart impact. At the same time they will also get a basic understanding of predictive analytics and machine learning. Students will learn what algorithms are and how they can use algorithms for decision making. Lastly, basic skills in optimization will be learned to solve tasks in the most cost effective manner. This means that students go through a cycle of collecting and storing data, visualizing information and predicting and optimizing organizations based on data.

Included in programme(s)

International Finance & Control

School(s)

Business & Law

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