

COURSE SYLLABUS



DATA ANALYSIS AND DESIGN

IFSA-Butler Reimagining Europe Semester Program in Prague

Suggested US semester credit hours: 4 credits

Contact Hours: 60

Course Level: 300

Course length: Semester

Delivery method: Face to face

Language of Instruction: English

COURSE DESCRIPTION

The aim of this course is to provide a knowledge and understanding of database systems including design principles, practical implementation and development skills for both the system designer and software engineer. The importance of structured query languages should be stressed, in terms of how they can be used to manipulate data and how they are used for a variety of tasks including querying and report writing. On completion of this course the student should be able to understand, design, query and implement a database(s). Students will also have a theoretical insight into the requirement for designing a database that meets a given user or system requirement and that is functional, user friendly and robust.

STUDENT LEARNING OBJECTIVES

Students who successfully complete this course will:

- Understand data models and database technologies
- Be able to design and implement relational database systems
- Be able to use manipulation and querying tools
- Be able to test and document relational database systems
- Strengthen critical thinking skills
- Become familiar with resources available for further research on data analysis and design
- Make cognitive connections between learning in this course and other learning experiences in the IFSA-Butler Reimagining Europe Semester Program in Prague

COURSE DELIVERY

Students are expected to read or view resources in advance and be prepared to actively discuss them in class. In each meeting, the instructor will overview the topic and then facilitate a group discussion, drawing out relevant themes, following up on specific lines of inquiry, and prompting students' thoughtful engagement with the topic. Students are encouraged to bring their prior

learning experiences into class discussions and to make cognitive connections between this course and others in the IFSA-Butler Reimagining Europe Semester Program in Prague whenever possible. Theories of experiential learning and integrative learning therefore undergird the dynamic learning environment of this course.

This course utilizes an interactive approach to teaching that focuses on the individual student's needs. This approach to teaching and learning aims to foster a challenging but caring environment that allows students to explore, create, and test themselves and their ideas in a safe place.

EVALUATION METHODS

The course instructor will determine specific assignments (including paper topics), projects, and exams for the course. Your work on individual assignments and projects will be guided by grading rubrics provided by the course instructor. Your final grade in the course will be arrived at through assessment methods determined by the course instructor and according to the percentages attached to each assignment and exam by the course instructor. Participation will constitute a determined percentage of your grade. Participation includes attendance, preparation, engagement in discussion, civility, and respect.

Your grade will be determined by the following scale and conversion:

Grading Scale

Scale	U.S. Grade Equivalent
70-100	A
65-69	A-
60-64	B+
50-59	B
45-49	C+
40-44	C
0-39	F

Timely Submissions

Assignments submitted after the deadline will be accepted at the discretion of the course instructor and generally only in the event of a documented illness or emergency.

ACADEMIC INTEGRITY

Any academic endeavor must be based upon a foundation of honesty and integrity. Students are expected to abide by principles of academic integrity and must be willing to bear individual responsibility for their work while studying abroad. Any academic work (written or otherwise) submitted to fulfill an academic requirement must represent a student's original work. Any act of academic misconduct, such as cheating, fabrication, forgery, plagiarism, or facilitating academic dishonesty, will subject a student to disciplinary action.

IFSA-Butler takes academic integrity very seriously. Students must not accept outside assistance without permission from the instructor. Additionally, students must document all sources according to the instructions of the professor. Should your instructor suspect you of plagiarism,

cheating, or other forms of academic dishonesty, you may receive a failing grade for the course and disciplinary action may result. The incident will be reported to the IFSA-Butler resident director as well as your home institution.