

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Management	
Course ID: FM.KIS/312AM/21	Course title: Cloud Computing
Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning	
Number of credits: 6	
Recommended semester: 1.	
Educational level: I., II.	
Prerequisites:	
Course requirements: Type of Activities: 2 hours lectures and 2 hours seminars Number of Hours: 4 hours per week Per Week; Per Level/Semester: Form of the Course: Full time / Combined Method During the semester midterm and/or final tests for 40 points. Score of 60 points will be given for the semester project and its presentation and oral examination. Scale of assessment (preliminary/final): 40/60	
Learning outcomes: By successfully completing this course, students will develop proficiency in cloud computing through the utilization of software resources offered by the Faculty of Management. This will enable them to cultivate a more comprehensive understanding of both the theoretical underpinnings and practical applications of cloud computing systems. The course is structured into four distinct phases, providing students with a well-rounded and progressive learning experience: Analytical Phase (2-4 weeks): During this initial phase, students will delve into the foundational concepts of cloud computing. They will critically analyze the key principles and components of cloud systems, setting the stage for more advanced exploration. Conceptual Phase (2-4 weeks): Building upon the analytical phase, students will transition to a conceptual phase where they deepen their understanding of cloud computing. They will explore conceptual frameworks, architecture, and models, gaining insight into how cloud systems are structured and function. Verification Phase (1-3 weeks): In the verification phase, students will engage in practical exercises and hands-on activities to validate their knowledge and skills. This phase provides an opportunity for students to apply what they've learned through real-world scenarios and technical tasks. Argumentative Phase (1-3 weeks): The final phase encourages students to engage in critical thinking and problem-solving within the context of cloud computing. They will analyze case studies, debate contemporary issues, and present arguments based on their acquired knowledge. Throughout these phases, students will not only acquire cloud computing skills but will also develop their analytical, conceptual, practical, and argumentative abilities. This holistic approach ensures	

that they are well-prepared to apply their knowledge effectively in the field of cloud computing and adapt to the ever-evolving technological landscape.

Class syllabus:

Week 1: Introduction to Cloud Computing
Week 2: Software as a Service (SaaS) Model
Week 3: Platform as a Service (PaaS) Model
Week 4: Infrastructure as a Service (IaaS) Model
Week 5: Public Clouds
Week 6: SLA (Service Level Agreement) Management
Week 7: License Terms of Leading Cloud Service Providers
Week 8: Private Clouds
Week 9: Hybrid Cloud Model
Week 10: Cloud Computing and Security
Week 11: Development of Applications in the Cloud
Week 12: Architecture of Cloud Systems
Week 13: Cloud and Regulation

Recommended literature:

[1]. SILVERMAN, Ben a Michael SOLBERG, 2018. OpenStack for Architects: Design production-ready private cloud infrastructure, 2nd Edition. 2nd Revised edition edition. Birmingham: Packt Publishing. ISBN 978-1-78862-451-0.
[2]. THOMAS, Erl, Puttini RICARDO a Mahmood ZAIGHAM, 2013. Cloud Computing: Concepts, Technology & Architecture. 1st edition. B.m.: Pearson.
[3]. VACCA, John R., ed., 2020. Cloud Computing Security: Foundations and Challenges. 2nd edition. B.m.: CRC Press.

Languages necessary to complete the course:

English

Ethics:

The syllabus lists knowledge, skills, competences and transferable skills that the students will acquire by successfully completing the course. These will impact on their personal development and can be used both in their future careers and in their lives as active citizens in democratic societies.

Following the provisions of Internal Regulation of the Comenius University Bratislava - Internal system of ensuring the quality of higher education of the Comenius University Bratislava, *each student consistently achieves his/her study results honestly during his/her studies; does not cheat or use dishonest procedures during any form of verification of his study knowledge and knowledge*. Cases of violation of this provision can be assessed as a violation of obligations arising from legal regulations (...). Such an assessment may be associated with applying relevant legal consequences on an academic, (...) or disciplinary level.

Following the provisions of Internal Regulation of the Comenius University Bratislava - Disciplinary regulations of the Comenius University Bratislava for students, *a student's disciplinary offence is any form of writing off or illegal cooperation or hinting during the written or oral evaluation of study results (knowledge verification) or during preparation for it within the course, or the use of technical devices or any information carriers in a way other than permitted during the written or oral evaluation of study results (knowledge verification) or during preparation for it within the subject*. Some of the disciplinary measures may be imposed on the student for a committed disciplinary offence: reprimand, conditional expulsion from studies or expulsion from studies.

Notes:							
Past grade distribution Total number of evaluated students: 90							
A	ABS	B	C	D	E	FX	M
46,67	0,0	24,44	21,11	2,22	1,11	3,33	1,11
Lecturers: Mgr. Vincent Karovič, PhD.							
Last change: 13.09.2025							
Approved by: prof. Mgr. Anna Lašáková, PhD.							