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| **„DZEMAL BIJEDIC“ UNIVERSITY OF MOSTAR****BUSINESS INFORMATICS** |
| **Unit:** | **Object-oriented Programming** | **Subject code: 0000** |
| **Level:** | Undergraduate |  |
| **Professor:** | Assistant Professor Dr Denis Mušić |
| **Contact details:** | E-mail: denis@edu.fit.ba Tel: +387 36 281 166  |
| **Contact hours:** | Lectures per week: 2 | Practicals/tutorials per week: 3 |
| **ECTS:** | 7 ECTS |
| **Unit status:** | Core  |
| **Prerequisites:** | Structured Programming |
| **Synopsis:** | During this course students should successfully master concepts represented in object-oriented programming paradigm. During an object-based analysis of a particular system, and using the C ++ as programming language, students should be able to recognize concepts that can be directly mapped from the real world to the program code. Also, by learning basic concepts and principles of object-oriented paradigm students will be able to use other programming languages such as Java and C #. |
| **Aims:** | By applying modern teaching methods and programming paradigms, this course aims to teach students how to develop functional C++ programs. Users should be able to navigate and be guided through the process which their program is trying to support.  |
| **Outcomes** | After taking the course, students will be able to: specify simple abstract data types and design implementations, using abstraction functions to document them, recognise features of object-oriented design such as encapsulation, polymorphism, inheritance, and composition of systems based on object identity, name and apply some common object-oriented design patterns and give examples of their use. |
| **Teaching methods:** | Lectures, interactive discussions, multimedia teaching contents, exercises in a computer lab |
| **Assessment:** | Two partial exams (50% each) or Final examination (100%) |
| **Prescribed literature:** | * Teaching materials: lectures and exercises published on the DLWMS system
* Introduction to OOP with C ++, Josep Maria Ribo, Ismet Maksumić, Siniša Čehajić, Univerzitetska knjiga Mostar
* The C ++ Programming Language, 4th Edition, Bjarne Stroustrup, Addison-Wesley Professional
* Demistified C ++, Julijan Sribar and Boris Motik, "Element" Zagreb
* C ++ An Introduction to Computing, Joel Adams, Sanford Leestma, Larry Nyhoff; Prentice Hall
* C ++ How to program, Deitel & Deitel, Prentice Hall
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