THE BUCHAREST ACADEMY OF ECONOMIC STUDIES
Faculty: Cybernetics, Statistics and Economic Informatics
Chair: Economic Informatics
Scientific master's curriculum: Economic Informatics

SYLLABUS

academic year: 2009-2010

<table>
<tr><td>Course title</td><td colspan="6">SOFTWARE ENGINEERING AND ASSEMBLY LANGUAGES</td></tr>
<tr><td rowspan="2">Course code</td><td rowspan="2">01010101OS411220A</td><td rowspan="2">Numbers of points</td><td rowspan="2">7</td><td colspan="4">Hours per semester</td></tr>
<tr><td>Total</td><td>Lectures (C)</td><td>Seminar (S)</td><td>Laboratory/ project work (L/P)</td></tr>
<tr><td></td><td></td><td></td><td></td><td>56</td><td>28</td><td>28</td><td>-</td></tr>
<tr><td>Faculty where delivered</td><td colspan="4" rowspan="2">Cybernetics, Statistics and Economic Informatics</td><td colspan="2">Year of study</td><td>4</td></tr>
<tr><td colspan="2">Semester</td><td>1</td></tr>
<tr><td>Specialization</td><td colspan="6">Economic Informatics</td></tr>
<tr><td>Master's Program of Study (MA)</td><td colspan="6"></td></tr>
<tr><td colspan="6">Course type:
F – fundamental, S – specialized, C – complementary</td><td>S</td></tr>
<tr><td colspan="6">Course curricular category :
C – compulsory, E – elective, F - free, S - special</td><td>C</td></tr>
<tr><td rowspan="2">Pre-requisites</td><td colspan="2">Compulsory</td><td colspan="4">Analyze and design of informatics systems
Object oriented programming</td></tr>
<tr><td colspan="2">Recommended</td><td colspan="4">JAVA programming
WEB technologies
Network computing</td></tr>
<tr><td>Learning objectives</td><td colspan="6">Software development skills through assembly's languages means.</td></tr>
<tr><td>Course contents (descriptors)</td><td colspan="6">a. algorithm classes; Branch and Bound, Divide et Impera, Backtracking and Greedy implementation methods; parallelism, concurrent access, interactivity;
b. cycle of software systems development; design software systems;
c. interfaces software systems; development modules;
d. testing techniques; implementation and maintenance;
e. optimization software systems; cost of development and exploitation.
f. design of assembly languages;
g. data structures and control structures; procedures and macro-definitions;
h. recursive mechanisms implementation; graphic resources management;
i. object oriented programming;
j. testing and performance evaluation of programs written in assembly language;</td></tr>
<tr><td colspan="6">Type of assessment (E – exam, A – continuous assessment, C – colloquium</td><td>A</td></tr>
<tr><td rowspan="4">Assessment percentage</td><td colspan="5">Final exam</td><td>40%</td></tr>
<tr><td colspan="5">Practical activities</td><td>20%</td></tr>
<tr><td colspan="5">Projects/Essay(s)</td><td>20%</td></tr>
<tr><td colspan="5">Periodic evaluation</td><td>20%</td></tr>
<tr><td>Bibliography</td><td colspan="6">Ion IVAN, Paul POCATILU, Doru CAZAN – Practica dezvoltarii software in limbaj de asamblare, Editura Economica, Bucuresti, 2002;
Vasile LUNGU - Procesoare INTEL, Programare in Limbaj de asamblare, Editura TEORA, Bucuresti, 2004, ISBN 973-20-0099-6
A.W. Brown – Building Systems from Pieces with Component-Based Software Engineering, Macmillan Tehnical Publishing, 1999
P. Clements - Evaluating Software Architectures: Methods and Case Studies, Addison Wesley, 2001
Len DORFMAN - Object Oriented Assembly Languge,Windcrest Blue Ridgs Summit, 1990
Len DORFMAN - Structured Assembly Language,Windcrest Blue Ridgs Summit, 1990
R. Pressman - Software engineering a practitioner's approach, McGRAW-Hill, 2001</td></tr>
<tr><td rowspan="2">Instructors</td><td colspan="5">Position, title, first name, surname</td><td>Signature</td></tr>
<tr><td colspan="5">Prof. Dr. Ion IVAN</td><td></td></tr>
<tr><td colspan="7">Legend: L – lecture; S – seminar; L/P – laboratory/project work.</td></tr>
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