SYLLABUS

SUBJECT …… Operating systems…….

TEACHER …… PhD Piotr Romanowski ……

COURSE DESCRIPTION
Lecture and classes for Erasmus students are provided in consultation form.
Lecture:
The course will provide an introduction to operating system design and implementation.
The course will start with a brief historical perspective of the evolution of operating systems, and then cover the major components of present operating systems. Particular attention will be given to four major OS elements: process management (processes, threads, CPU scheduling, synchronization, and deadlock), memory management (segmentation, paging, swapping), file systems, and input/output mechanisms.

Classes:
DOS and Unix shell commands, shell programming. Implementation of some OS problems. Compilers. File manipulation using Unix system calls. Process creation and manipulation using Unix system calls. Process synchronization.

LEARNING OUTCOMES
A student should receive a basic knowledge about the major components of present operating systems. Especially about four major OS elements: process management (processes, threads, CPU scheduling, synchronization, and deadlock), memory management (segmentation, paging, swapping), file systems, and input/output mechanisms. A student should be introduced in:
Using compilers. File manipulation using Unix system calls. Process creation and manipulation using Unix system calls. Process synchronization.
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GRADING POLICY

Lecture: Exam.

Classes: Written test.

TIMETABLE
…In consultations hours.

TEXTBOOK AND REQUIRED MATERIALS
http://www.personal.kent.edu/~rmuhamma/OpSystems/os.html
http://cseweb.ucsd.edu/classes/fa00/cse120/
Operating System Concepts 8th Ed A Silberschatz P Galvin G Gagne Wiley 2009
M. Ben-Ari Principles of Concurrent and Distributed Programming. Second Edition Addison-Wesley, 2006.

PREREQUISITES:
An understanding of computer architecture and Java/C programming skills.