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CPT 430-452: Software Web Applications II

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Syllabus
CPT 430 452

Software Web Applications II

Spring 2020

Instructor: Jolanta Soltis
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Phone: (973) 596-2925
Office Room: Student Mall, Room 46
Office Hours: Monday and Wednesday: 4:30pm-5:30pm

Textbook: learn.zybooks.com - Enter zyBook code **NJITCPT430SoltisSpring2018** - Click Subscribe
(The cost to subscribe is \$77)

Schedule: Moodle

Overview:

An introduction to the fundamentals of computer science, with emphasis on programming methodology and problem solving. Topics include basic concepts of computer systems, development environments, software engineering, algorithm design, programming languages and data abstraction, with applications. A high level language is fully discussed and serves as the vehicle to illustrate many of the concepts. The programming language used is Java and the integrated development environment is JGrasp.

Topics:

Computer organization
Software engineering; problem solving
Native data types, expressions
Objects
Classes
Decisions
Iteration
GUI based programming
Methods and Classes
Arrays and Collections
Inheritance and Polymorphism
Exceptions
Recursive Problem Solving
Threads
Testing and Debugging

Student Learning Outcomes:

- Be able to differentiate between Procedural vs. Object Oriented programming style.
- Understand and work with the various Java Data Types
- Obtain a solid understanding of how to control program flow
- Master the use of conditional processing, loops & iterations, and method creation and calls
- Gain knowledge of Objects and Classes
- Learn how abstraction, encapsulation, inheritance and polymorphism work

- Create method overriding and overloading to enhance your Object Oriented coding techniques
- Appreciate Java Exception handling paradigm
- Work with input and output files and streams

Grading:

1. Class Participation in Q&A forums: 5%
2. Labs: 10%
3. Book interactive exercises: 10%
4. Homework assignments + challenge activities from the book (5%): 15%
5. Midterm Exams: 25%
6. Final Exam: 35%

Assignments:

For all assignments the following timing scheme is valid:

1. In time: 100%
2. One week delay: 90%
3. Two weeks delay: 80%
4. Else: 70%

Policy:

1. All assignments should be submitted by their due date in order to be considered for full credit. Exceptions can be made for valid medical reason and family emergencies only. In such situation documentary evidence is necessary.
2. You could discuss your assignments with others but you have to write all assignments individually.
3. No team work allowed.

Grading:

The program will be credited in different levels:

1. Cannot compile.
2. Can run but the results are not correct.
3. Compiles, runs, produces correct results, but has not been adequately tested.
4. Compiles, runs, produces correct results and has been adequately tested.

Points will be deducted for the following reason:

1. Inadequate comments or documentation.
2. Incorrect or bad programming style.
3. Inconsistent indentation.
4. Identifiers names that are not meaningful.

Homework assignments are due on the specified date. The late assignment will be graded according to the assignments rule listed above.

Plagiarism: Plagiarism will not be tolerated and will receive a penalty of an automatic grade of F.

Resources:

- [Java SE Runtime Environment \(JDK\) 8](#)
- [Link to download jGRASP](#)

All students must abide by the NJIT honor code.

<http://www.njit.edu/academics/honorcode.php>

