CSCE 4430 PROGRAMMING LANGUAGES SYLLABUS  
FALL 2015  
http://www.cse.unt.edu/~4430s001/

Instructor: David Adamo Jr. (DavidAdamo@my.unt.edu)

Classroom: NTDP D201

Time: 1:00pm - 2:20pm Monday and Wednesday

Office: NTDP F201

Grader: TBD

Office Hours: 10:00am - 12:00noon Monday and Wednesday


Course outcomes:
1. Understand key concepts of programming languages, with emphasis on programming paradigms and language processors.
2. Have a practical understanding of commonalities and differences between major programming paradigms.
3. Understand the key object-oriented, logic and functional programming concepts.
4. Understand the key concepts of event driven and concurrent programming.
5. Understand the use and implementation of modern programming language concepts like recursion, inheritance, reflection, unification, backtracking, type inference, infinite data objects and threads.
6. Have some familiarity with domain-specific languages with emphasis on Internet programming languages.

<table>
<thead>
<tr>
<th>Time Table:</th>
<th>Topic</th>
<th>Chapter</th>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Introduction</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Syntax</td>
<td>2</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Lexical and Syntactic Analysis</td>
<td>3</td>
<td>4-5</td>
</tr>
<tr>
<td></td>
<td>Object-Oriented Programming</td>
<td>13</td>
<td>6-8</td>
</tr>
<tr>
<td></td>
<td>Exam #1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Functional Programming</td>
<td>14</td>
<td>10-12</td>
</tr>
<tr>
<td></td>
<td>Logic Programming</td>
<td>15</td>
<td>13-15</td>
</tr>
<tr>
<td></td>
<td>Event-Driven Programming</td>
<td>16</td>
<td>16-17</td>
</tr>
<tr>
<td></td>
<td>Exam #2</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Concurrent Programming</td>
<td>17</td>
<td>19-20</td>
</tr>
<tr>
<td></td>
<td>Names</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Types</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Type Systems</td>
<td>6</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Semantics</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Functions</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Function Implementation</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Memory Management</td>
<td>11</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Imperative Programming</td>
<td>12</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Domain Specific Languages</td>
<td></td>
<td>29</td>
</tr>
</tbody>
</table>
Grading:  
Exam #1  25%  
Exam #2  25%  
Exam #3  25%  
Exercises  25%  

Grading Policy:  There will be three (3) 80-minute examinations, the first exam on **Wednesday, September 23**, the second exam on **Monday, October 26** and the third exam on **Saturday, December 5 at 10:30am**. The schedule of these exams is fixed and cannot be changed to accommodate individual circumstances except for a major illness or family emergency. In such cases, arrangements must be made before the time of the exam to take the exam at a different time. Makeup exams will not be given without such prior approval and only for the emergency cases indicated. There will be several written and programming exercises, which will emphasize the theory covered by the lectures. Assignments will be accepted at most one class meeting late, at a cost of 25% of the assignment credit. Otherwise, all assignments are due by 11:59pm local time on the date indicated.  

Prerequisites:  **CSCE 2110 Computing Foundations II** with a grade of C or better.  

Academic Integrity: You are encouraged to become familiar with the University's Policy of Academic dishonesty found in the **Student Handbook**. The content of the Handbook applies to this course. Additionally, the following specific requirements will be expected in this class: The exercises are to be done independently. Any single incident of copying or duplication of work will result in the division of credit among collaborators. A subsequent occurrence of academic dishonesty will result in the grade of F for the course. If you are in doubt regarding the requirements, please consult with me before you complete any requirements of the course.  

ADA Statement:  The University of North Texas is on record as being committed to both the spirit and letter of the federal equal opportunity legislation; reference Public Law 92-112 - The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests on informing the faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Please contact the Office of Disability Accommodation in the University Union (suite 167, Sage Hall, tel. (940) 565 4323) if you have any questions.