COURSE SYLLABUS
COSC 1436 75426
Programming Fundamentals I
SUMMER 2013
LEARNING CENTER
Business/Information Technology Center
(972) 273-3450/ Room T135
M-R 8:00am-8:30pm, F 8:00 -4:30pm

This course syllabus is intended as a set of guidelines for (COSC 1415). Both North Lake College and your instructor reserve the right to make modifications in content, schedule, and requirements as necessary to promote the best education possible within prevailing conditions affecting this course.

Instructor Information:
Professor: Prabhat Sharma
Email: psharma@dccc.edu
Office Phone: 972-762-1524 <> To leave message
Office: T135
Office Hours: By appointment only.

Course Information
Course title: Introduction to Computer Science and Programming
Course number: COSC 1436
Section number: 75426
Credit hours: 4
Class meeting time: On-Line

Course description: This course provides students with the knowledge and skills required to develop C++ applications for any platform

Required or Recommended Textbooks and Materials

C++ Primer Plus By Stephen Prata
Sixth Edition
Publisher: Addison-Wesley Professional; 6 edition (October 28, 2011)
Language: English
**Semester Specifics:**

**Your instructor is:** Prabhat Sharma

**Instructor’s email address:** psharma@dcccd.edu

**Telephone number:** 972-762-1524 <> To leave message

*Best time to contact instructor is: During office hours, otherwise please leave a message.*

**Last day to withdraw from this class is:** 07/17/2013

**Last day of class is:** 07/31/2013
Course Objectives

The course focuses on C++ program structure, language syntax, and implementation details

Specific Course Learning Outcomes

- Analyze the basic structure of a C++ application
- Document, debug, compile, and run a simple C++ application
- Create, name, and assign values to variables
- Use common statements to implement flow control, looping, and exception handling
- Create methods (functions and subroutines) that can return values and take parameters
- Create, initialize, and use arrays, pointers, strings
- Explain the basic concepts and terminology of object-oriented programming, classes
- Use objects and reference types
- Create, initialize, and destroy objects in a C++ application
- Build new C++ classes from existing classes, inheritance, polymorphism, and virtual functions
- Define operators, use exceptions handling, and add event specifications
- Implement data structures and stream input/output
- Use C Legacy code and ANSI/ISO C++
- Understand and contrast between Object oriented and structured programming

Course Outline

Reading/Lecture Class Schedule:

<table>
<thead>
<tr>
<th>WEEK</th>
<th>ASSIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chapter 1: Getting Started with C++; Chapter 2: Setting Out to C++, Chapter 3 – Dealing with Data</td>
</tr>
<tr>
<td>2</td>
<td>Chapter 4 – Compound Types, Chapter 5 – Loops and Relational Expressions</td>
</tr>
<tr>
<td>3</td>
<td>Chapter 6: Branching Statements and Logical Operators, Chapter 7 and 8 – Functions</td>
</tr>
<tr>
<td>4</td>
<td>Chapter 9 – Memory Models and Namespaces, Chapter 10 and 11 – Objects and Classes and Working with Classes</td>
</tr>
<tr>
<td>5</td>
<td>Chapter 12 – Classes and Dynamic Memory Allocations, Chapter 13: Class Inheritance:</td>
</tr>
<tr>
<td>6</td>
<td>Chapter 14 – Reusing Code in C++, Chapter 15 – Friends, Exceptions, and More</td>
</tr>
<tr>
<td>7</td>
<td>Chapter 16 – String Class and STL</td>
</tr>
<tr>
<td>8</td>
<td>Chapter 17 – Input Output and Files</td>
</tr>
</tbody>
</table>

Assignments:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Marks</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab 1</td>
<td>20</td>
<td>06/16/2013</td>
</tr>
<tr>
<td>Lab 2</td>
<td>20</td>
<td>06/23/2013</td>
</tr>
<tr>
<td>Lab 3</td>
<td>20</td>
<td>06/30/2013</td>
</tr>
</tbody>
</table>
Late Submissions: If the labs and the projects are submitted after the due dates, 20% will be deducted for the late submission if submitted within 7 days from the due dates. After 7 days, 10% additional marks will be deducted for every 7 days.

Means of Assessment of Course Learning Outcomes
Labs, projects will be assigned as well as on-line discussions, forums and lab presentations.

Evaluation Procedures

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Percent of Total Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Projects1-5</td>
<td>30%</td>
</tr>
<tr>
<td>Labs</td>
<td>20%</td>
</tr>
<tr>
<td>Examinations</td>
<td>50%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

Grading Scale

<table>
<thead>
<tr>
<th>Grading Scale</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90%-100%</td>
<td>A</td>
</tr>
<tr>
<td>80%-89%</td>
<td>B</td>
</tr>
<tr>
<td>70%-79%</td>
<td>C</td>
</tr>
<tr>
<td>60%-69%</td>
<td>D</td>
</tr>
<tr>
<td>&lt;60</td>
<td>F</td>
</tr>
</tbody>
</table>

Discipline/ Course/ Department/Policies:
If the labs and the projects are submitted after the due dates, 20% will be deducted for the late submission if submitted within 7 days from the due dates. After 7 days, 10% additional marks will be deducted for every 7 days.
ARTS, BUSINESS, SPORTS SCIENCE, AND TECHNOLOGY DIVISION
BUSINESS and TECHNOLOGY LABORATORIES
Office Hours: 8:00 a.m. - 8:30 p.m. Mon-Thu,
8:00 a.m. - 4:30 p.m. Fri
Location: T135, Telephone: 972-273-3450

INSTITUTIONAL POLICIES

DCCCD EMERGENCY OPERATING PROCEDURES
http://video.dcccd.edu/rtv/DO/emergency_dcccd.wmv

ACADEMIC DISHONESTY
The Student Code of Conduct prohibits academic dishonesty and prescribes penalties for violations. According to this code, which is printed in the college catalog, "academic dishonesty", includes (but is not limited to) cheating, fabrication, facilitating academic dishonesty, plagiarism, and collusion".

1) The Vice-President of Academic & Student Affairs may initiate disciplinary proceedings against a student accused of academic dishonesty.

2) Academic dishonesty includes, but is not limited to, cheating on a test, plagiarism and collusion.

3) Cheating on a test includes:
   a) Copying from another student’s test paper;
   b) Using, during a test, materials not authorized by the person giving the test;
   c) Collaborating with another student during a test without permission to do so;
   d) Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of an un-administered test.
   e) Substituting for another student, or permitting another student to substitute for you to take a test; and
   f) Bribing another person to obtain an unadministered test or information about an unadministered test.

4) “Plagiarism” means the appropriation of another’s work (ideas and/or words) and the unacknowledged incorporation of that work in one’s written work offered for credit. Quotes not identified as quotes constitute a form of plagiarism even if the borrowed ideas are documented.

5) “Collusion” means an unauthorized collaboration with another person in preparing written work offered for credit.

Academic dishonesty may result in the following sanctions, including, but not limited to:
1. A grade of zero or a lowered grade on the assignment or course.
2. A reprimand.
3. Suspension from the college.

NOTIFICATION OF ABSENCE DUE TO RELIGIOUS HOLY DAY(S)
Students who will be absent from class for the observance of a religious holiday must notify the instructor in advance. Please refer to the Student Obligations section of the college catalog for more explanation. You are required to complete any assignments or take any examinations missed as a result of the absence within the time frame specified by your instructor.

REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (A430)
North Lake College provides academic accommodations to students with disabilities, as defined under ADA law. It is the student's choice and responsibility to initiate any request for accommodations. If you are a student with a disability who requires such ADA accommodations, please contact North Lake College’s Disability Services Office in person (A430) or by phone at 972-273-3165.
http://www.northlakecollege.edu/resources/disability.html

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974 (FERPA)
In compliance with the Family Educational Rights and Privacy Act of 1974 (FERPA), the College may release information classified as “directory information” to the general public without the written consent of the student. Directory information includes: (1) student name, (2) student address, (3) telephone numbers, (4) date and place of birth, (5) weight and height of members of athletic teams, (6) participation in officially recognized activities and sports, (7) dates of attendance, (8) educational institution most recently attended, and (9) other similar information, including major field of student and degrees and awards received. Students may protect their directory information at any time during the academic year. If no request is filed, directory information is released upon written inquiry. No telephone inquiries are acknowledged. No transcript or academic record is released without written consent from the student, except as specified by law.

ADMINISTRATIVE WITHDRAWAL
Students with valid extenuating circumstances may be eligible for an administrative withdrawal by the Dean of the Division in which the course or courses are taught. An administrative withdrawal will not be awarded to students who simply fail to withdraw prior to the last day to receive a “W.” The request for an administrative withdrawal must be made in writing to the Dean of the Division with any supporting documentation attached. This must occur before the last official day of the semester.

DROP POLICY
If you are unable to complete this course, you must officially withdraw by:

MayMester (May 13-June 3) – Wednesday, May 29, 2013
Summer 1 (June 5-July 3) – Wednesday, June 26, 2013
Summer 1 eight-week classes (June 5-July 25) – Friday, July 12, 2013
Summer 1 and 2 ten-week classes (June 5-August 8) – Thursday, July 25, 2013

Summer 2 (July 9-August 8) – Wednesday July 31, 2013

Withdrawing is a formal procedure which you must initiate; your instructor cannot do it for you. All Dallas County Community Colleges charge a higher tuition rate to students registering the third time for a course. This rule applies to the majority of credit and Continuing Education / Workforce Training courses. Developmental Studies and some other courses are not charged a higher tuition rate. Third attempts include courses taken at any DCCCD college since the fall 2002 semester. For further information, go online to: http://www.DCCCD.edu/thirdcourseattempt.

STOP BEFORE YOU DROP

For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W”. Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: https://www1.dcccd.edu/coursedrops

FINANCIAL AID STATEMENT

Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate are also subject to this policy.

To apply for financial aid in the DCCCD, students must complete FAFSA (Free Application for Federal Student Aid) on the web at: http://www.fafsa.ed.gov

COUNSELING SERVICES (A430)

Counseling services for personal issues are provided to all students currently enrolled at North Lake College. These services are provided by licensed professionals who are bound by confidentiality (within ethical parameters) at no charge. With the assistance of a counselor, students are able to identify, understand, resolve issues and develop appropriate skills. To make an appointment call 972-273-3333 or visit A 430.

The Academic Skills Center (ASC)

The ASC is designed to provide the following assistance to students:
• An ESOL lab with computer access.
• Free tutoring for students enrolled in foreign language courses.
• The iRead Lab offers individual and small group tutoring, as well as workshops, to help current students improve their reading, study, and test taking skills.
• The Writing Center to help students clarify writing tasks, understand instructors’ requirements, develop and organize papers, explore revision options, detect grammar and punctuation errors, properly use and document sources, and improve their writing skills.
• The Online Writing Lab (OWL) allows students to submit papers to our writing tutors electronically and get feedback within 24-72 hours. The OWL can be accessed through eCampus.
  o After logging on to eCampus, click on the Community Tab at the top.
  o Type “Owl” in the search field and click “Go.”
  o Next, click on the double drop-down arrows next to “NLC-OWL2,” and then click on “Enroll.”
  o Once enrolled, students can receive services from the OWL.
• The Blazer Internet Lounge with 12 computers, additional open seating, and WiFi Internet access.

For more information or to schedule a tutoring appointment, come by A-332 or call 972-273-3089.

TESTING CENTER (A 425)
Monday-Thursday: 8:30 a.m. – 8:00 p.m.
  No tests will be issued after 7:00 p.m. Other cut-off times may be in effect for specific exams by the instructor’s direction. All exams collected at 8:00 p.m.
Friday-Saturday: 8:30 a.m.-3:30 p.m.
  No tests will be issued after 2:30 p.m. Other cut-off times may be in effect for specific exams by the instructor’s direction. All exams collected at 3:30 p.m.
Sunday – CLOSED

If you instructor requires you to complete an exam in the Testing Center, be sure to have the following information when you request your test:
  1. Instructor’s name
  2. Subject, course number, and section number (exp: Speech 1311.7011)
  3. Exam number (1st, 2nd, 3rd, etc.)
  4. Exam deadline (Get this information from your instructor. The testing staff cannot look up this information on computers).

You should also bring the following supplies:
  1. Pencil
  2. Scantron answer sheet
  3. A Test Request Form must be completed before entering the Testing Center.
  5. Government or school issued photo identification is required & enforced.

You may not bring personal items into the Testing Center. This includes bags, cell phones, and pagers.
Please show courteous and cooperative behavior while using the services provided by the Testing Center.

DO NOT bring children to the Testing Center. You must make arrangements for the care of your children prior to your exam date. The police department will be notified of any unattended children.

DO NOT take any testing materials with you when you leave the Testing Center. This includes the test, answers, charts, scratch paper. These items will be attached to your test.

Questions? Please visit the Testing Center (A 425) or call 972-273-3160.

**Specific Learning Activities**

*See Appendix A*

**Exemplary Educational Objectives (EEOs)**

1. Discuss computer and communications terminology
2. Evaluate the effects and implications of computers and communication technology on society
3. Demonstrate knowledge of the impact of technology on the individual’s privacy, security, lifestyle, work environment, standard of living, and health.
4. gather information for decision-making
5. Participate in global communities using available technology
6. Create quantitative and qualitative data presentations

**Core Curriculum Intellectual Competencies**

This course reinforces 1 through 6 of the 6 Core Curriculum Intellectual Competencies defined by the Texas Higher Education Coordinating Board. The CCIC’s identified by the DCCCD which are reinforced by Programming Fundamentals I are as follows:

*The following is a list of the six (6) CCIC’s. List only those for this course.*

1. READING: Reading at the college level means the ability to analyze and interpret a variety of printed materials -- books, articles, and documents.
2. WRITING: Competency in writing is the ability to produce clear, correct, and coherent prose adapted to purpose, occasion, and audience.
3. SPEAKING: Competence in speaking is the ability to communicate orally in clear, coherent and persuasive language appropriate to purpose, occasion and audience.
4. LISTENING: Listening at the college level means the ability to analyze and interpret various forms of spoken communication.

5. CRITICAL THINKING: Critical thinking embraces methods of applying both qualitative and quantitative skills analytically and creatively to subject matter in order to evaluate arguments and to construct alternative strategies.

6. COMPUTER LITERACY: Computer literacy at the college level means the ability to use computer-based technology in communicating, solving problems, and acquiring information.

**LEARNING ACTIVITIES, OUTCOMES, AND ASSESSMENT**

Learning Activities, Outcomes, and Assessment (Form A)

<table>
<thead>
<tr>
<th>Learning Activity</th>
<th>Learning Outcomes</th>
<th>Assessment</th>
<th>EEO’s &amp; CCIC’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide a brief description of the learning activity.</td>
<td>Briefly list the specific learning outcomes/objectives for the activity.</td>
<td>How will the activity be assessed?</td>
<td>Which EEO’s and CCIC’s are addressed by the learning activity?</td>
</tr>
</tbody>
</table>

1. Short lab and terminology quiz
   - List the major elements of a C++ skeleton program
   - Lab-rubric, grading key for the quiz
   - (CICs 1-6) (EEOs 1-5)

2. Project and short lab assignments
   - Create, initialize, and use arrays, pointers, and strings
   - Project s’ rubric and labs’ rubric
   - (CICs 1-6) (EEOs 1-5)

3. Lab presentation/On-line discussion
   - Explain the basic concepts and terminology of object-oriented programming, classes
   - Rubric for a power point presentation and on-line discussion
   - (CICs 1-6) (EEOs 1-6)
### Specific Learning Activities

<table>
<thead>
<tr>
<th>Learning Activity</th>
<th>Learning Outcomes</th>
<th>Evaluation/Assessment</th>
<th>EEOs and CCICs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab and Terminology Quiz</td>
<td>List the major elements of a C++ skeleton program</td>
<td>Lab-Rubric, grading key</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Lab and on-line discussions/</td>
<td>Analyze the basic structure of a C++ application</td>
<td>Rubric for BB discussion</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>forums</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labs</td>
<td>Document, debug, compile, and run a simple C++ application</td>
<td>Lab-Rubric</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Labs and/or project</td>
<td>Create, name, and assign values to variables</td>
<td>Lab and project rubrics</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Lab and ./or projects</td>
<td>Use common statements to implement flow control, looping, and exception handling</td>
<td>Lab and project rubrics</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Labs and/or Project</td>
<td>Create methods (functions and subroutines) that can return values and take parameters</td>
<td>Lab and project rubrics</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Lab and/or Project</td>
<td>Create, initialize, and use arrays, pointers, strings</td>
<td>Lab and project rubrics</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Lab and lab presentation</td>
<td>Explain the basic concepts and terminology of object-oriented programming, classes</td>
<td>Lab-rubric and Power Point Presentation Rubric</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Labs and/or project</td>
<td>Use objects and reference types</td>
<td>Lab and project rubric</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Labs</td>
<td>Create, initialize, and destroy objects in a C++ application</td>
<td>Lab rubric</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Lab and/or Project</td>
<td>Build new C++ classes from existing classes, inheritance, polymorphism, and virtual functions</td>
<td>Lab and project rubric</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Lab and/or Project</td>
<td>Define operators, use exceptions handling, and add event specifications</td>
<td>Lab and project rubric</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Lab and/or Project</td>
<td>Implement data structures and stream input/output</td>
<td>Lab and project rubric</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>Lab and/or Project</td>
<td>Use C Legacy code and ANSI/ISO C++</td>
<td>Lab and project rubric</td>
<td>(CICs 1-6) (EEOs 1-5)</td>
</tr>
<tr>
<td>On-line discussion and</td>
<td>Compare and contrast between object oriented and procedural programming</td>
<td>Power Point Rubric and BB discussion rubric</td>
<td>(CICs 1-6) (EEOs 1-6)</td>
</tr>
<tr>
<td>presentation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Assessments Tools for Evaluating Learning Activities  
(Discussion Board, Labs, Lab Presentation and Projects)

I. Discussion Board

1. The Instructor selects a topic, some examples are as follows:
   a. Computer ethics, privacy, viruses, cracking, security issues
   b. E-mail etiquette
   c. Different elements of operating systems
   d. Different components of computer system hardware, software etc…
2. The instructor suggests a site or outlines a method of searching
3. The student researches the topic
4. The student discusses and expresses his/her opinion
5. The student posts the discussion
6. The student reads other people’s postings and comments
7. The student generates a report

Sample Grading Rubric

<table>
<thead>
<tr>
<th>Discussion Points: 0 – 5 points awarded as follows</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Excellent:</strong></td>
</tr>
<tr>
<td>1. The participant addressed all of the issues raised in the discussion question.</td>
</tr>
<tr>
<td>2. The participant posted insightful comments and questions that prompted additional discussion.</td>
</tr>
<tr>
<td>3. The participant helped clarify other group members’ ideas. If disagreeing with another group member’s ideas, the participant stated his or her disagreement or objections clearly, yet politely.</td>
</tr>
<tr>
<td>4. Spelling, punctuation and grammar are consistent with college-level writing.</td>
</tr>
<tr>
<td>5. The participant posted initial comments early in the week and responded to at least one other student’s comments during the week. (“I agree” does not constitute an acceptable response.)</td>
</tr>
<tr>
<td>5 pts</td>
</tr>
<tr>
<td><strong>Good:</strong></td>
</tr>
<tr>
<td>1. The participant was lacking in one of two of the items listed in “Excellent” participation.</td>
</tr>
<tr>
<td>2. The participant had to be prompted or coaxed to participate.</td>
</tr>
<tr>
<td>3. The participant usually, but not always, expressed her or his ideas clearly</td>
</tr>
<tr>
<td>4 pts</td>
</tr>
<tr>
<td><strong>Fair:</strong></td>
</tr>
<tr>
<td>1. The participant was lacking in three of the items listed in “Excellent” participation.</td>
</tr>
<tr>
<td>3 pts</td>
</tr>
<tr>
<td><strong>Needs improvement:</strong></td>
</tr>
<tr>
<td>1. The participant was lacking in four of the items listed in “Excellent” participation.</td>
</tr>
<tr>
<td>2. The participant was reluctant to participate even when prompted.</td>
</tr>
<tr>
<td>3. The participant rarely expressed his or her ideas clearly.</td>
</tr>
<tr>
<td>2 pts</td>
</tr>
<tr>
<td><strong>Unacceptable:</strong></td>
</tr>
<tr>
<td>1. The participant did not post.</td>
</tr>
<tr>
<td>0 pts</td>
</tr>
</tbody>
</table>
II. Labs Assessment Tool (Sample Grading Rubric)

Points are assigned by the evaluator to each of the following as follows:

1. Programming style and standards (10%)
2. Correctness (70%)
3. Readability (5 %)
4. Modifiability (5 %)
5. Robustness (5%)
6. Documentation(5%)
III. Lab Presentation Assessment Tool (Sample Grading Rubric included)

1. Select a topic, for example “Survey, compare and contrast procedural and OO languages”
2. Research the topic
3. Discuss and express your opinion
4. Generate a power point presentation
5. Schedule and present it to the class

Sample Grading Rubric:

<table>
<thead>
<tr>
<th>Description</th>
<th>*Points</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter title of presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add student’s name as footer to slides</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply appropriate design template</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design templates applied to presentation and slide master according to criteria specified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create a minimum of seven slides each with main topic and supporting information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply spell check and grammar check</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Format the most important information so it appears prominently</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title the final slide “Research URLs” citing at least three Web Sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Format all products and book titles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add, format, align, distribute and group auto shapes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insert clip art and/or images to support presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use transitions, special effects and timings in slide show</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import Word table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insert Excel chart and graphics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Points to be determined by the evaluator
IV. Projects Assessment Tool (Sample Grading Rubric Included)

- Projects assignment use some design tools (i.e. pseudo code, UML, flowcharts, IPO) and documentation. Solutions may include but is not limited to the following:
  i. Problem specification
  ii. Problem analysis
  iii. Modular programming analysis
  iv. Data analysis and definition
  v. Algorithm design and implementation
  vi. A programming language
  vii. Classes
  viii. Associations
  ix. Interfaces
  x. Properties
  xi. Behaviors
  xii. Documentation

Sample Grading Rubric

Points are assigned by the evaluator to each of the following:

- Programming style and standards (10%)
- Correctness (70%)
- Readability (5%)
- Modifiability (5%)
- Robustness (5%)
- Documentation (5%)