Object Oriented Programming

Terry Yoast

2018-2019 Course Syllabus

STA Main Line: 816-986-3410
FAX: 816-986-3435
E-mail: terry.yoast@lsr7.net
Office Hours: 7:10 – 7:40 a.m. or 2:00 – 2:50 p.m.

COURSE DESCRIPTION: This course emphasizes programming methodology and problem solving. Algorithm design and development, data abstraction, good programming style, testing and debugging will be presented. An appropriate block-structured high-level programming language will be studied and used to implement algorithms.

INSTRUCTIONAL PHILOSOPHY: This course is based on a series of projects typical of the software engineering programming field. You will also be applying academic skills in mathematics, science, and language arts. Several of the projects require you to work in teams. As you complete projects and other assignments, you will develop a portfolio of work. A high level of work is expected of all students, so you may be asked to re-do work until it is of a level of quality accepted in the professional field. You will be expected to act as a young professional at all times.

ESSENTIAL STANDARDS:

1. Each student should be able to:
   - Solve problems using a disciplined approach to algorithm development.
   - Use a block-structured high-level programming language.
   - Create, test and debug programs using an integrated programming language development system.
   - Describe and use well-known algorithms and data structures.
   - Code and document using commonly accepted programming standards.
   - Identify the major hardware and software components of a computer system, their relationship to one another, and the roles of these components within the system.
   - Demonstrate an understanding of procedural and data abstraction.
2. Solve problems using critical thinking skills (analyze, synthesize, and evaluate) independently and in teams. Solve problems using creativity and innovation.
3. Implement agile practices while working in teams.

MAJOR ASSIGNMENTS/PROJECTS:

1. Complete small projects to demonstrate comprehension of each concept.
2. Watch video lectures at home.
3. Work with individual/small groups of students/ entire class.
4. Participate in an outside teacher related activity such as an Open House event.
5. Keep a portfolio.
6. A final culminating class project.

ASSESSMENT PLAN:

1. Projects both individual and group.
2. Small quiz for each group of concepts.
3. Midterm and final exams.

DUAL CREDIT OPPORTUNITIES: Offered to eligible students according to Coordinating Board of Higher Education. Credit will granted from Longview Community College. **Textbooks**: C++ Programming From Problem Analysis to Program Design. D.S. Malik. Copyright 2015.

GRADING POLICY: Grades will be figured using the Summit Technology Academy approved grading scale. Grades are cumulative throughout the semester. The grade will be based on the following total

points: written work, projects and assessments. A comprehensive written final will comprise 10% of the semester grade.

The following standardized grading scale is used for STA:

A = 95 -100	C = 73 - 76
A- = 90 - 94	C- = 70 - 72
B+ = 87 - 89	D+ = 67 - 69
B = 83 - 86	D = 63 - 66
B- = 80 - 82	D- = 60 - 62
C+ = 77 - 79	F = 59 & below (No Credit)

Colleges use a four-point system of grading (A= 4, B=3, C=2, D=1, F=0) without a minus and plus option.

TUTORING/EXTRA HELP PLAN: STA utilizes a pyramid of interventions in order to ensure students successfully meet the course requirements. Tutoring or extra help can be obtained by contacting the STA teacher through e-mail, phone or a student management system (such as Blackboard or Canvas). The teacher will provide either immediate help, set up a time to meet, or utilize an online video conference method.

ATTENDANCE POLICY: Regular attendance reflects dependability. The experience gained by students in the laboratory cannot be duplicated in the event of absence. **Summit Technology Academy's policy may differ from that of the home school and will be in effect for the period of attendance at STA.**

A student shall be allowed no more than nine (9) absences, excused or unexcused, per semester in any one class. When a student reaches 9 absences, the school will send an informational letter to the parents, regardless of prior contact by phone or conference. The letter serves as notification of the number and type of absences by the student in each class. On the tenth (10) absence, in any one class, the student will not earn credit for that class. Students will have the opportunity to work with their administrator or teacher to make up missed time prior to the end of the semester. If a student still has 10 or more absences at the conclusion of the semester the student will be required to complete an attendance waiver appeal. A waiver to maintain full credit must be submitted by the end of the semester. This waiver should include documentation of illness, funeral, or family emergency from a medical doctor, dentist, minister, or other official source. The waiver should be turned into the attendance office.

ELECTRONIC GRADEBOOK/PARENT CONNECT WEBSITE: G*rades are updated on a weekly basis in Power School.* The link is on the district website and instructions are here: http://www.lsr7.org/parents/power-school/.

ACADEMIC LETTERING: *Any student who has maintained a 4.0 GPA for both semesters of the STA course will receive an academic letter*.

ADDENDUM TO COURSE SYLLABUS

TARDY POLICY: Tardies will be issued according to the student handbook. Students are on time if they are seated in the classroom at 7:55 or 11:50 and have begun working on the bell work. Please take care of water-drinking and restroom needs BEFORE the class begins.

DRIVING PRIVILEGES: Driving to STA is a privilege and can be revoked at any time. Students are allowed to drive to STA as long as their sending school allows them to drive and a permit is on file. Driving permits may be revoked if a student is frequently tardy or late to school.

ELECTRONICS POLICY: No electronics or headphones are allowed in the classroom unless being used in the educational process as directed by the instructor. Electronics should be placed in backpacks or purses and out of sight. Students are encouraged to interact and help one another when appropriate.

MATERIALS NEEDED: Students will be expected to keep all work throughout the semester. Students are expected to bring a backup flash drive and student planner to class.

ASSIGNMENT FORMAT: All assignments will be MLA format with the heading and name on the left side of the paper. Assignments need to be typed in Word, converted to Word (see Technology handout), or in native language on the wiki.

TECHNOLOGY: Students are required to utilize technology for various assignments. It is understood that not all students will have access to personal computers. Computers are available at your home high schools, public library, and at the student computer lab at UCM Summit Center (See Technology Handout page for times).

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