

Software Development (C++ Programming) Syllabus

James Clemens High School



Teacher:

Kayla Grantham

11306 County Line Road
Madison, AL 35756

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Phone: 256-216-5313 ext. 95222

- I. Course Description:** This course will involve the review of basic programming constructs such as loops, functions, and arrays and study of the object-oriented programming language, C++.
- II. Course Objectives:** The student will master advanced programming concepts such as two-dimensional arrays and use of multiple functions as well as the fundamentals of object-oriented programming with classes.
- III. Remote Learning Expectations:**
1. Be responsible for your own learning
 2. Be on time, Be in a quiet place, and Be prepared
 3. Check schoology daily as assignments may change
 4. Appropriate presentation, Mute yourself when necessary, Be ready to participate, Chat responsibly, and Communicate clearly and appropriately
 5. Seek additional help immediately if a topic seems difficult or requires alternative approaches to assist in your understanding

Accommodations:

Requests for accommodations for this course or any school event are welcomed from students and parents.

Concerning laptop utilization:

1. Student laptops should not be hard wired to the network or have print capabilities.
2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers.
3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops.
4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

- IV. Grading Policy:** Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The Final Exam counts for 1/5 of final grade.

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V. Make-up Test Policy:

If you miss a class, test, or assignment, it is your responsibility to see what you have missed (weekly assignments will be posted on schoology). All work missed on the day(s) of the excused absence(s) must be made up within three school days after returning to school. It is your responsibility to turn this work in to me by the third day. If you do not turn in the work within 3 days then it will become a zero. If you missed a test or quiz, you must communicate this with me ahead of time. We will schedule a time together to make-up the test or quiz.

VI. Text and Other Required Reading:

For extra help: Programming Principles and Practice Using C++, Bjarne Stroustrup. Software used: Dev-C++. (Can be downloaded for free from www.bloodshed.net.)

VII. Materials and Supplies Needed:

Binder, Loose Leaf Paper, Pencil, & Optional Calculator

18 – WEEK PLAN*	
Week 1	Unit 1 Basic C++ Syntax, Variables, Data Types, cin/cout, etc
Week 2	Unit 1 Basic C++ Syntax, Variables, Data Types, cin/cout, etc
Week 3	Unit 2 Compound, Comparison, & Special Assignment Operators, Boolean, If/Else, Switch, Loops (While, For, Do-While)
Week 4	Unit 2 Continued & Unit 3 Nested Loops
Week 5	Unit 3 Nested Loops
Week 6	Unit 4 Functions (Void, Return Value, & Recursive Functions)
Week 7	Unit 4 Functions (Overloaded Functions), Pass by Reference vs. Pass by Value
Week 8	Unit 5 Arrays (1D Arrays)
Week 9	Unit 5 Arrays (2D Arrays)
Week 10	Unit 5 Continued & Unit 6 OOP, Strings, Classes
Week 11	Unit 6 OOP, Strings, Classes
Week 12	Unit 7 Vectors
Week 13	Unit 7 Vectors & Unit 8 Inheritance
Week 14	Unit 8 Inheritance
Week 15	Unit 8 Inheritance
Week 16	Unit 9 Links, Stacks, Queues, & Overloaded Operators
Week 17	Unit 9 Links, Stacks, Queues, & Overloaded Operators
Week 18	Overall Semester Review

* The syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions, or substitutions. Adequate notice will be provided to students of any necessary changes.

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LAPTOP ASSIGNMENTS

- Each student will be assigned to a laptop on the first day of in person class. You may **NOT** change laptops without permission from me and you may **NOT** let another student access your laptop. Even if your laptop is not working correctly, you must inform me and you will be reassigned until the problem is fixed.
- If any inappropriate activity or vandalism occurs at your assigned laptop during that class period, it will be presumed that **YOU** are responsible.
- If, at the beginning of class, you discover a problem with your laptop, you must immediately let me know. Otherwise, **YOU** will be held responsible.

ACCESS TO FILES AND FOLDERS

- Students are allowed to access only the files under PROGRAMS on the laptops and in their personal folders on the file server. Any student who accesses any other files without permission from me will lose all laptop privileges for an indefinite period of time and possibly be issued a discipline referral.
- Students are required to save their program and other files for this class in their folder on the file server. You may **NOT** save to the hard drive unless there are extenuating circumstances such as network failure. If a problem occurs with your laptop and you have been saving to the hard drive, you will probably lose all of your work since your laptop will have to be recloned.

RULES FOR USE OF LAPTOPS

- Any laptop vandalism (software and/or hardware) will result in a loss of laptop privileges for an indefinite period of time and a discipline referral will be issued.
- When you are allowed to access the Internet, any viewing, printing, or downloading "inappropriate" material from the Internet will result in a loss of laptop privileges for an indefinite period of time and a discipline referral will be issued. You are allowed to access the Internet **ONLY** after all your work is completed. If this is not the case, you will be given a warning or detention.
- You may **NOT** download or install any files or programs.
- Games are **NOT** allowed to be downloaded, copied onto the hard drive or network drive(s), into your folder, or played from any media device. These activities will result in a loss of laptop privileges for an indefinite period of time and a discipline referral will be issued.
- You may **NOT** use electronic media of any form in the school laptops.
- In the past, certain offenses that have been deemed by the administration and/or technical staff as harmful to the system network or as a potential security risk have resulted in removal of the responsible student(s) from the class and from ever accessing a laptop at James Clemens again.
- If you are not sure about what is considered appropriate or inappropriate, check with me **BEFORE** you act!
- **NO** student will use the Gateway Destination laptop without permission from me.
- **ALL RULES AND POLICIES STATED IN THE JCHS STUDENT HANDBOOK REGARDING LAPTOP USE WILL BE STRICTLY ENFORCED.**

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Dear Parent/Guardian,

I look forward to having a great year! I feel fortunate to have your son/daughter in my class this semester and hope that you will contact me should you have any concerns about the progress of your son/daughter or any aspect of the instruction. With your son/daughter, please read the attached policies, then sign and date this signature page and have your son/daughter return this form. Please provide a current email address and phone number at which I can contact you should the need arise. Please contact me at school with any concerns.

Thank you,

Ms. Grantham
Klgrantham@madisoncity.k12.al.us

My child and I have read and discussed the classroom syllabus.

Student Name (Print) _____ Date _____

Student Signature _____ Date _____

Parent/Guardian Name (Print) _____ Date _____

Parent/Guardian Signature _____ Date _____

Parent Email address _____ (w) _____ (h)

Parent Phone number _____ (w) _____ (h) _____ (c)