Course description: STEM 2 Applications is a project-based learning experience for students who wish to explore further the dynamic range of STEM fields introduced in STEM 1: Foundation. Building on the content and critical thinking frameworks of STEM 1, this course asks students to apply the scientific inquiry and engineering design processes to a course-long project selected by the instructor with the help of student input. Instructors design a project in one of two broad pathways (traditional sciences or engineering) that reflects the interest of the class as a whole; students apply the steps of the scientific inquiry or the engineering design process throughout the course to ask questions, test hypotheses, model solutions, and communicate results. In some cases, instructors may be able to design sybrid projects that employ elements of both scientific inquiry and the engineering design process. Upon completion of this course, proficient students will have a thorough understanding of how scientists and engineers research problems and methodically apply STEM knowledge and skills; and they will be able to present and defend a scientific explanation and/or an engineering design solution to comprehensive STEM-related scenarios.

MATERIALS: Fully charged Chromebook, 3-ring binder, loose-leaf paper, pencils/pens (black or blue).

CALCULATION OF SEMESTER GRADE:

UNIT ASSESSMENT : Assessments will occur at the completion of each unit.

Projects may count as one or two grades. Unit assessments will count for approximately 60% of the semester grade. *Students are expected to prepare for assessments*.

CLASSWORK AND OTHER ASSIGNMENTS:

Lab work and reports – 20%

Classwork/participation – 20%

Since this is a problem based learning program each student must complete the lab safety assessment with **100%** in order to participate in lab explorations.

\*\*\* FCHS Policy: Late Work/Point Deductions:

1. A student who does not have an assignment completed and ready to turn in the day the assignment is due will receive a twenty-percent (20%) deduction and will be given one additional day to turn in the assignment. No late assignments will be accepted after the following day the assignment is due.
2. A student is allowed two (2) late assignments per semester. After the second late assignment the teacher will assign a grade of zero (0) for each subsequent late assignment. A student is responsible for arranging additional time with their teacher(s) if the situation warrants.

FINAL SEMESTER GRADE: The final semester grade is the average of the 1st 9 weeks grade and the 2nd nine weeks grade.

Grades will be posted each week in Skyward. Students will be issued a password to their grade account. Students are encouraged to check grades frequently.

MAKE-UP WORK: Students have five school days to make up missed assignments. Students are responsible for making arrangements for missed assignments.

If you need to miss class for a reason other than sickness, you are welcome to complete the day’s assignment and turn it in. If you are absent due to illness you are welcome to complete the assignments as soon as you feel well enough to do so.

*Students are required to retain all returned, graded assignments. In the event that a student has a question about a grade, they must provide the graded assignment in question.*

HOMEWORK: Homework is a necessary part of the learning process and must provide sufficient practice to master the subject matter of the course. You can expect to be assigned 20-30 minutes of homework each class which will include assignments, guided practice and assessment preparation. You are expected to review each day’s lesson as part of your assignment in preparation for new subject material.

CLASSROOM RULES

PLEASE:

Be polite and respectful to classmates and teacher

Be quiet and listen when teacher is talking

Go to the restroom before you come to class

Follow all school rules

If you would like to talk with me, please call Franklin County High School at 967-2821 and leave a message. I will return your call as soon as possible or contact me at carlene.guerin@fcstn.net.

**RETAIN THIS SYLLABUS IN YOUR NOTEBOOK.**

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**Student’s signature**

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**Parent’s signature**

**By signing, you indicate that you have read and understand the above information.**