



2024-2025

Liberty Middle School

281 Dock Murphy Drive, Madison, Alabama 35758

Mrs. Joy Hearrington

Project Lead The Way - Green Architecture (PLTW GA)

Technology Student Association (TSA) Advisor

<p>Teacher Contact Information</p>	<p>Email: jhearrington@madisoncity.k12.al.us Classroom Phone: 256-430-0001 ext. 83112</p> <p>This syllabus is subject to change. Please initial each page, sign the last page, and return asap. The digital syllabus in Schoology and on my teacher webpage is for your future reference.</p>
<p>Course Digital Platforms</p>	<p>Webpage Link: https://www.madisoncity.k12.al.us/Domain/2099 Schoology Link: https://madisoncity.schoology.com/home Distribution List: PowerSchool will be used for parent contact, including class updates and announcements. Please ensure with the LMS Front Office that your preferred email address and/or phone number is in PowerSchool correctly.</p>
<p>Textbook Information, Required Texts, and Other Instructional Materials</p>	<p>There is a digital textbook for this course which is accessed via CLEVER from PLTW. We use Schoology as our lessons and activities organizer and PLTW as our curriculum resource. Please ensure your student brings their MCS Chromebook charged and ready for class each day. We have class headphones for them to borrow as needed.</p> <p><i>Parents and guardians can access other supplementary materials through the Schoology platform via their student's login.</i></p>
<p>Course Description</p>	<p>Today's students have grown up in an age of "green" choices. In this course, students learn how to apply this concept to the fields of architecture and construction by exploring dimensioning, measuring, and architectural sustainability as they design sustainable off the grid housing using CAD architectural design software. All assignments will also be listed in Schoology should a student be absent for any reason.</p>
<p>Course Prerequisites</p>	<p>None</p>
<p>Course Objectives</p>	<p>K1 – Identify the systems required in a residential home, including electrical, plumbing, heating, ventilation, and air conditioning. U7 K2 – Describe the three areas of a house and the rooms that belong to them. U7 K3 – Identify common roof styles. U7 K4 – Describe the working triangle and its purpose. U7 K5 – Identify and use appropriate symbols in a basic floor plan for a residential home. G1 – Demonstrate an ability to identify, formulate, and solve engineering problems. G2 – Demonstrate an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. G3 – Demonstrate an ability to design and conduct experiments, as well as to analyze and interpret data. G4 – Demonstrate an ability to apply knowledge of mathematics, science, and engineering. G5 – Demonstrate an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. G6 – Pursue the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.</p>

	<p>G10 – Gain knowledge of contemporary issues.</p> <p>G11 – Recognize the need for, and develop an ability to engage in life-long learning.</p>
Course Goals	<p>Students will:</p> <ol style="list-style-type: none"> 1. Explore the variety of careers related to engineering... 2. Communicate effectively for specific purposes and settings. 3. Collaborate effectively on a diverse and multidisciplinary team. 4. Demonstrate personal responsibility and initiative and an understanding of professional and ethical responsibility. 5. Persistently apply an iterative process to solve a problem or create an opportunity that can be justified. 6. Generate ideas or build upon other ideas to innovate. 7. Incorporate safety in all designs, products, and solutions.
Instructional Delivery Plan, Course Outline & Culminating Project	<p>Unit 1: Architectural Basics Measuring Practice, Architectural Measurement, Architectural Dimensioning, Measuring Your Classroom, CAD Creating Your Classroom Tutorial, Estimating Floor Materials, Bedroom Floor Plan, Fundamentals of Construction, Room Sizes & Relationships, Reading a Floor Plan. End Project: Design a Bedroom Using CAD</p> <p>Unit 2: Introduction to Sustainable Architecture Rebuilding Greensburg, KS, Building Green End Project: TSA Off the Grid Project with opportunity to compete with the final project at the April 15-16 Technology Student Association (TSA) Leadership Conference in Montgomery, AL (We go in partnership with James Clemens HS.)</p> <p>Unit 3: Architectural Challenge</p> <p>Culminating Project: Off the Grid Project Presentation</p>
Credentialing	None
CTSO Integration (LMS Career & Technical Student Organization is TSA.)	<p>Technology Student Association, TSA, is a career technical student organization and a fundamental part of this course. It is a national career and technical student organization of students engaged in science, technology, engineering, and mathematics (STEM). TSA is integrated into the program which includes competitions and leadership opportunities. TSA provides students with activities during their class time and before/after school with our local TSA Chapter. <i>TSA Based Activities relevant to Green Architecture include but are not limited to: Lab Safety Posters, Career Prep, Essays on Technology, Challenging Tech Issues, CAD Foundations, Problem-Solving, Structural Engineering, Off the Grid, and Construction Challenge.</i> OFF THE GRID is the TSA Project that will be incorporated into this course.</p>
Embedded Numeracy Anchor Assignment (Sustainable Home TSA Off the Grid Project)	<p>PLTW Standards and Units</p> <p>S1 – Demonstrate the proper use of a standard ruler and an architectural scale. U1, U2, U3, U4, U5</p> <p>S2 – Use proper notation in regards to dimensioning an architectural drawing. U1, U2, U3, U4, U5</p> <p>S3 – Calculate area and perimeter of a floor plan given dimensions. U6</p> <p>S4 – Measure a room and draw it to scale using common symbols. U2, U3, U4, U5, U6, U7</p> <p>S5 – Read and interpret a blueprint of a floor plan. U7, U8</p>

<p>Embedded Literacy Anchor Assignment (Lesson Concluding Questions & Activities)</p>	<p>Students will use precise language and domain-specific vocabulary to inform about or explain the topic (L1.1 - L3.2, L3.4). Students will document work, including processes, research and solutions (L1.1-L3.2, L3.4). Students will produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (L1.2-L2.7). Students will draw evidence from literary or informational texts to support analysis, reflection, and research (L1.2-L2.7).</p>
<p>Embedded Science Anchor Assignment (Sustainable Home TSA Off the Grid Project)</p>	<p>Project addresses Next Gen Science Standard MS-ETS 1-2 Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.</p>
<p>Classroom Expectations</p>	<p>1. Be Respectful. 2. Lean into Struggles & Own Your Education. 3. Be a Learner, Not a Finisher 4. Feed Your Passion 5. Cheerful Collaboration</p> <p>1. Be in your seat when the tardy bell rings starting on bell work immediately. Don't wait to be told. <i>Detention for tardies will be assigned per LMS policy.</i></p> <p>2. Come prepared for class. Bring a writing utensil and charged Chromebook, including a positive mindset for learning.</p> <p>3. Treat others as you want to be treated. Show respect for yourself and others at all times.</p> <p>4. Cell Phones should be off & put away unless instructed by the teacher otherwise.*</p> <p>5. If it's not yours, don't touch it. Keep your hands, feet, and objects to yourself.</p> <p>6. Be responsible for ALL technology and supplies.</p> <p>7. The teacher dismisses the class, not the bell.</p> <p>8. Behave in a manner conducive to learning for all.</p> <p>9. Do not visit gaming, video, non-Green Architecture curriculum websites during class.</p> <p>10. Follow all Lab Safety rules in class and all rules listed in your LMS Handbook, District Technology Policy & MCS Code of Conduct. All students must follow the Madison City Schools Code of Conduct.</p>
<p>Progressive Discipline (LMS Policy) and Think Sheet (Mrs. H. policy)</p>	<p>Liberty Middle School Classroom Management Plan:</p> <p>Step 1: Verbal warning</p> <p>Step 2: Student/teacher conference and Think Sheet with parent notification</p> <p>Step 3: Parent contact/conference</p> <p>Step 4: Detention</p> <p>Step 5: Referral to administration for repeat Class I violations and initial Class II and Class III offenses (Madison City Schools Code of Conduct)</p>
<p>Grading Policy & Scale (MCS Policy)</p>	<p>60% = Assessments (Tests, Mini-Assessment, Projects)</p> <p>40% = Daily Grades (Quizzes, Progress Checks, Classwork, Daily Activities & Participation)</p> <p>Grade Scale: 90-100 = A; 80-89 = B; 70-79 = C; 65-69 = D; <64 = F</p>
<p>Late Work Policy</p>	<p>The Student handbook policy for late work will be followed. If students have an unexcused absence a 0 will be assigned for missed assignments. If students have an excused absence, they will have a minimum of 3 days and a maximum of 1 week to complete missed assignments. Time extensions may be determined on a case by case basis for the level of difficulty of the assignment.</p>
<p>Make-up Work/Test Policy</p>	<p>Students with excused absences will be allowed to make-up all work within three days of returning to school. It is the student's responsibility to ask for make-up work. Students can get with a classmate or ask the teacher for help. Work that is not made up will become a zero (including quizzes/tests). Many times, missed quizzes and tests can be made up during school.</p>
<p>Technology & Cell Phone Procedures</p>	<p>Students should bring their MCS chromebooks and chargers to class each day. Teachers monitor student activity and participation; however, students are responsible for their activity on school-issued devices and using their MCS accounts.</p>

	<p>Cell phones and earbuds/headphones will not be allowed to be used during classroom instruction time. Phones and earbuds/headphones will be put away in a location designated by the teacher and placed in silent mode. Students will have access to their phones and earbuds/headphones outside of classroom instruction time, such as between classes and during lunch, but devices should be put away when students are in the serving line and in class. Failure to follow these procedures will result in a disciplinary referral to the office.</p> <p>Student laptops should not be hard-wired to the network or have print capabilities. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. Laptops and other electronic devices will be used at the individual discretion of the teacher.</p>
Accommodations	Requests for accommodations for this course or any school event are welcomed from students and parents.
Materials & Supplies	Each student should leave their cellphone in their backpack for the entire class. It should start entirely <i>in</i> their backpack before they walk in the room and stay in their backpack until they are changing classes and out in the hall. Each student will be given a PLTW design notebook that will stay in the class . (He/she will be given their own file folder in a file cabinet). Colored pencils, regular pencils, large pink/white erasers, scissors, ruler, and a glue stick would be helpful if they have them and could keep those in their backpack as well (or in their classroom notebook file).
Homework	<i>It is not often that there is homework in Green Architecture class other than thinking about projects and designs or gathering optional materials.</i> However, if a student does not use their time wisely in Green Architecture class, work does come home.
CTE Lab Safety Guidelines	Each student in a CTE/PLTW course will be required to complete a lab safety exam and score a 100% correct before being allowed to use any tools on projects. We expect students to responsibly and safely use the CTE equipment. Examples of equipment used in CTE courses may include and are not limited to the following: scissors, hot glue guns, box cutters/craft knives, power tools, hand tools i.e. hand saw, measuring tools, electronic equipment, computers, medical supplies, robotics equipment, food items (consumable and non-consumable).
Parent & Student Acknowledgment Form Please include any concerns or notes to Mrs. Hearrington below:	<p><i>Student assignments will be posted in Schoology based on activities and readings assigned in my.PLTW.org; however, all grades will be posted in PowerSchool. Thank you for your support and I encourage you to contact me with any questions or concerns . A digital copy of this syllabus is available on the teacher webpage which you can print out if desired.</i></p> <p><i>This paper copy, please sign below that you have received and read the syllabus and will abide by all policies. It will need to be the paper copy that is signed. Thank You! Mrs. Joy Hearrington</i></p> <hr/> <p>STUDENT FULL NAME (Please Print) BLOCK DATE</p> <hr/> <p>STUDENT SIGNATURE</p> <hr/> <p>PARENT SIGNATURE PARENT PHONE NUMBER(S)</p> <p>PARENT EMAIL(S)</p>