

# Justice Myron E. Leavitt Middle School

THE BEST  
MIDDLE  
SCHOOL IN  
THE  
COUNTRY!

## Follow the PATRIOT WAY FIVE CORE VALUES

**LEADERSHIP:** LEAD inside and outside of the classroom through a POSITIVE example.

**COURAGE:** Take RISKS in their learning and thinking: have courage to share ideas.

**INVINCIBLE GRIT:** PERSEVERE even when tasks get tough.

**CREATIVITY:** INNOVATE: Use your creativity to solve problems at school and in the community. THINK outside the box.

**GLORIOUS KINDNESS:** TREAT each person the way you wish to be treated.



## Course Expectations Ms. Neiry Automation & Robotics 7<sup>th</sup> /8<sup>th</sup> Grade



Student's Name:

Student ID Number:

### Student:

- I have read and understand the school rules listed above.
- I have read and understand the progressive discipline steps for inappropriate behavior and tardies.
- I have read and understand the course expectations provided for this course.

\_\_\_\_\_  
Signature of Student

\_\_\_\_\_  
Date

### Parent/Guardian:

- I have read and understand the school rules pertaining to my child.
- I have read and understand the progressive discipline steps for inappropriate behavior and tardies.
- I have read and understand what is expected of my child in this course.

\_\_\_\_\_  
Signature of Parent/Guardian

\_\_\_\_\_  
Date

### Dear Parents/Guardians,

1. To confirm you have read the Course Expectations take a screen shot of the first page.
2. Sign the Parent signature and have your child sign the student signature using annotations/mark up on your phone/ipad.
3. Have your child upload the image to Canvas. (they know how)

Text Book: Engineering Notebook provided by the school and kept in the classroom

Price to replace textbook: \$0.00

Course Description:

## I. Course Goals

- a. Automation is the use of technology to ease human labor or to extend the mental or physical capabilities of humans.
- b. Robotics is the specialized field of engineering and computer science that deals with the design, construction, and application of robots.
- c. The use of automation and robotics affects humans in various ways, both positively and negatively, including their safety, comfort, choices, and attitudes about a technology's development and use.
- d. Automation and robotics have had an influence on society in the past and present and will influence society in the future.
- e. Engineers, designers, and engineering technologists are in high demand for the development of future technology to meet societal needs and wants.
- f. Energy is the capacity to do work; the use of mechanisms is necessary to transfer energy.
- g. Engineers and technologists design mechanisms to change energy by transferring direction, speed, type of movement, and force or torque.
- h. Mechanisms can be used individually, in pairs, or in systems.
- i. Automated systems require minimal human intervention.
- j. An open-loop system has no feedback path and requires human intervention, while a closed-loop system uses feedback.
- k. Troubleshooting is a problem-solving method used to identify the cause of a malfunction in a technological system.
- l. Comments do not change the way a robot behaves, but they do allow the programmer to remember the function that the code performs.
- m. Invention is a process of turning ideas and imagination into devices and systems.
- n. Some technological problems are best solved through experimentation.
- o. Fluid power systems are categorized as either pneumatic, which uses gas, or hydraulic, which uses liquids.
- p. Automated systems can be powered by alternative energy sources like solar and fuel cells.

## II. Course content and time schedule (sequential)

- a. First Quarter
  - i. What is Automation and Robotics
  - ii. Impacts of automation and robotics on Society
  - iii. Terms of safety and economics
  - iv. STEM careers in our society
- b. Second Quarter
  - i. Observing Mechanisms
  - ii. Mechanical Gears
  - iii. Designing for production: Prototype, Model, Mock up
- c. Third Quarter
  - i. Programmer and machines

- ii. Technological systems
- iii. Sketching and dimensioning
- d. Fourth Quarter
  - i. Robot behaviors and writing Pseudocode
  - ii. Programming in RobotC/Ctt
  - iii. Automation through Programming

### III. Course activities

- a. Investigations / Activities
- b. Readings / Discussions / Notes
- c. Project / Presentations

### IV. Curricular programs: PLTW Automation and Robotics <https://www.pltw.org>

### V. Evaluation

- a. Criteria for arriving at students grades
  - a. Class Assignments and Homework 50%
  - b. Participation (Journals, Materials Checks) 15%
  - c. Assessments 35%
    - \*Semester exams will not be administered early and make up 20% of the final semester grade. Students who are absent may make-up their exams on the district approved make-up day.
- b. Explanation of Student Grades
  - A 100 – 90%
  - B 89 – 80%
  - C 79 – 70%
  - D 69 – 60%
  - F 59 and below
- c. How and When Students will be Advised of Their Grades
  - a. Grades are posted as quickly as possible.
  - b. Parents and students are urged to check the Infinite Campus Portal on our website regularly.
  - c. Progress reports will be issued at mid-quarter
- d. Citizenship/Behavior Expectations - **Citizenship is not linked to academic achievement.**
  - a. The “O” grade is held in very high esteem by students and parents alike; thus, it should be neither awarded nor withheld lightly. The “O” carries with it possible nominations for all students to the Junior Honor Society and for various school awards and/or privileges.
  - b. *Leadership* is a definite factor in the awarding of an “O.” Leadership can be overt, by accepting active leadership roles in class or school organizations, or it may be covert, by leading by example or dedication. Excellent citizens may also be enthusiastic followers.
  - c. To establish as much uniformity as possible in the awarding of citizenship grades, the following criteria should be applied: Movement in the class is appropriate for the activity at hand; Student will act respectfully toward the teacher and other students; Student will obey class and school rules.
  - d. A few lapses in the behavior may result in a student receiving a grade of “S.”
  - e. Occasional lapses in the behavior may result in a student receiving a grade of “N.”

- f. A grade of “U” may be given if identified student misbehavior continues, but only if parent contact, specifically regarding the behavior, and/or a dean’s referral has been made. The “U” grade is cumulative and is not to be awarded for a single spectacular outburst.
- g. Citizenship is taken very seriously here at Leavitt Middle School. Teachers expect the very best from their students every day. Students are responsible for following all District, School-Wide Rules, and Leavitt’s Five “T’s,” and Acceptable Use Policy computer network rules. Additionally, students are expected to bring supplies to class, pay attention, stay on task, talk when appropriate, be respectful to all teachers and students, avoid nuisance items (such as cell phones, IPod, etc), and not chew gum. Students who cannot work within these expectations will have points deducted from their citizenship grades. Other actions which disrupt the learning environment of the classroom or other students will also be documented and points will be lost.
- h. Late Work policy – **If a student does not complete any assignment (for reasons other than an absence), they will be assigned a make-up work detention the following school day from 3:30 to 4:25 EVEN if they turn the assignment in the next school day.**
- i. Test retake policy – **A student may only retake a test if 1) all assignments have been turned in 2) the student has asked for help, clarification, or exhibited evidence of further studying and a further mastery of the subject matter.**

#### I. School-Wide Rules

- a. Follow directions quickly.
- b. Raise your hand for permission to speak.
- c. Raise your hand for permission to leave your seat
- d. Make SMART Choices: Kindness, Leadership, Courage, Invincible Grit, Creativity
- e. Work hard to do your best for your teachers and parents at all times.
- ◆ f. Keep your eyes on the target. ◆

#### II. TARDY POLICY – Progressive Steps

- a. 1st Tardy – Warning & Parent Phone Contact
- b. 2nd Tardy – Warning & Parent Phone Contact
- c. 3rd Tardy – Non-TRS RPC
- d. 4th Tardy – After School Detention
- e. 5th Tardy – In-House Suspension (IHS)
- f. 6<sup>th</sup> Tardy – Required Parent Conference – RPC/Tardy Contract
- g. 7<sup>th</sup> Tardy – IHS/parent and student meet with the principal

#### III. BEHAVIOR- Progressive Discipline

- a. 1st Incident – Verbal warning with possible Parent contact by teacher using email listed in Infinite Campus
- b. 2nd Incident - Parent contact by teacher using email listed in Infinite Campus
- c. 3rd Incident – Written contact to parent
- d. 4th Incident – Counselor referral
- e. 5th Incident – Deans’ referral

#### IV. Supplies needed for this course

- a. **Pencils and Blue/Black Pens will be used every day. Occasionally and Unannounced, a Participation grade will be given in the way of a “Materials Check”.**
  - b. **Optional: One pair of headphones/earbuds (Large headphones are provided but are less sanitary).**
  - c. **Colored pencils, markers, scissors, glue, ruler, graph paper and other supplies will be provided in class. You are welcome to bring your own.**
  - d. **Some supplies may be needed at home for completing assignments.**
  - e. **Agenda/daily planner- you can buy this anywhere. It needs to be big enough so you can write in your homework everyday for all classes.**
- V. Utilizing technology to learn – At Leavitt, we want to encourage the daily use of technology in and out of the classroom to further enhance the educational experience. As such, Leavitt will be providing students with individual devices in all grades to utilize in class and at home. Students will also be provided with a Google email address to correspond with their teacher and classmates on projects, as well as to turn in assignments. Students may choose to utilize their own electronic tablets (iPads, Kindle Fire, Samsung, etc.) cell phones, laptops, and reading devices for educational purposes. Please be reminded that your student is responsible for the safety of their personal device and must utilize the district’s Wifi to ensure their internet safety. All use of these devices will be for educational purposes and must be approved by the individual teacher.
- VI. Explanation of fees (if applicable)
- a. \$25 to cover class materials.
- VII. Ms. Neiry is available between 8:45-9:00 AM and 3:20-3:41 PM each scheduled school day. It is best to schedule the day prior and obtain a pass. Please feel free to contact me at: Email [neiryjj@nv.ccsd.net](mailto:neiryjj@nv.ccsd.net) or leave a voice message on the School phone 702.799.4699.