

Robotics Course Syllabus 2019-2020 School Year



Instructor: Jimmie Green SR

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Conference: 10:00 to 10:45am

After school availability: TBD

Tutoring time: By appointment before/after school

Welcome to Robotics!

Students enrolled in this course will demonstrate knowledge and skills necessary for the robotic and automation industry. Through implementation of the design process, students will transfer advanced academic skills to component designs in a project-based environment. Students will build prototypes or use simulation software to test their designs. Additionally, students explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

Course Assignments

Homework - may include worksheets, design ideas, sketching and general preparation form presentations, quizzes or test. Some grading periods may not have assigned homework because of the nature of instruction.

Projects - constitutes the major portion of the student's time in this class. Large and complex robotics projects will be completed in the engineering lab. It is imperative that each student participates within his/her group, as this measure will be included in project rubrics.

Test and Quizzes - will be given as needed to ensure that the student has mastered the information.

Final Exam - will be given at the end of the term. It will consist of a presentation to an industry panel.

LATE WORK

Students may be assessed a penalty of no more than 10 points per A or B day (this is not calendar days) for up to a maximum of three class periods before a zero may be given for work not turned in on time.

WEIGHTED CREDIT

Per MISD Board Policy EIC (LOCAL):

- The District uses a weighted numerical grading system. In calculating GPA, ten points (per semester) shall be added to a student's average in Advanced Placement (AP) courses, Pre-AP courses, Academic Decathlon, and courses considered to be District-approved college level dual credit courses. No courses shall receive weighted points for completion.
- No weighted credit point shall be added for grades lower than 70.
- Weighted grading shall be reflected in the student's GPA and not numerically per course on either the student's report card or transcript.

UIL ELIGIBILITY ("No Pass/No Play")

- Semester grades are computed by averaging the numerical grades recorded for each of the three six week reporting periods.
- Each six-week grading period will stand alone for eligibility purposes.
- A student who is declared academically ineligible after a six week grading period will be able to regain eligibility if all of the student's grade averages are 70% or higher at the subsequent 3 week grade reporting period.
- See MISD Board Policy FM (LOCAL) – Exempt Courses.

Robotics Course Outline

Unit 1

Professions/Professional
Safety
Total Quality Management
History of Robotics/Robot classifications
Design Process

Unit 2

Prototyping (Building)
Tooling and Dynamics
Controls

Unit 3

Programming

Unit 4

Sensors and Interfacing
Ethics/Environmental

Unit 5

Troubleshooting

Unit 6

Presentations

Text and References

There is no assigned text. All test material will be taken from daily notes and lecture. However, reference textbooks and material are available upon request. Students will be required to keep a notebook that will include notes on all lecture material and lab work. Your notebook will be worth a portion of your final grade.

Notebooks will be kept neat and in order by date to have points awarded, NO EXCEPTIONS.

Certifications

There are NO certifications available for this class.

Email and Electronic Portfolios

Students will be required to create and use a professional email account to communicate and turn in various assignments. This email will also be used to create an electronic portfolio using Google sites and Google Documents, which will be updated as the students advance thru Ben Barber Career Tech Engineering courses.

Grading Practices:

Six weeks grades shall be obtained by averaging daily work (homework, class work, or daily/pop quizzes, MISD Curriculum Based Assessments, etc.) and major grades (tests, projects, lengthy assignments, etc.).

Grading Percentages:

A	90-100
B	80-89
C	70-79
F	Below 70

SEMESTER EXAMS -

Each semester, specific exam schedules are designated for MISD high school and dual credit courses. These schedules must be followed. Neither mid-term nor final exams are given early. If a student is absent on the day of an exam he/she will take the exam at a date/time designated by the school.

Six Weeks Grade:

60% Daily work/Projects /Activities
40% Tests/Major Projects/Engineering Notebook
100% Total

Semester Grade:

80% Average 6 week grade
20% Final exam -- end of course exam **REQUIRED!**
100% Total

TEST RETAKES

- Students who fail a major test/assessment (below 70%) will be allowed to retake or correct up to a 70% grade. This does not include semester examinations.
- Students are expected to make arrangements with the teacher to retake or correct a major test/assessment.
- Students are encouraged to participate in tutoring opportunities before retaking a test.
- Each teacher will communicate routine requirements for retakes and corrections in his/her course syllabus.
- All retakes or corrections must be completed prior to the end of each six week grading period unless the student is afforded time, after the six week grading period, as a result of the district's absent/make-up guidelines.
- See UIL Eligibility ("No Pass/No Play") guidelines for additional information related to grades and UIL Eligibility.

LATE WORK

- Teacher designates due date and time for assignment (Beginning of class period, End of class period, designated time of day)
- If student fails to meet the due date and time, then the student has till the next class period (next A day or B day) to turn in assignment to be considered one day late.
- Students will be assessed a penalty of 30% points for up to one class period late.
- Score of a zero may be given for work turned in after one day late.

MAKE UP WORK: (because of absence for any class missed)

- The teacher may assign the student makeup work based on the instructional objectives for the subject or course and the needs of the individual student in mastering the essential knowledge and skills or in meeting subject or course requirements.
- A student will be responsible for obtaining and completing the makeup work in a satisfactory manner and within the time specified by the teacher. When absent, the student is afforded the number of days missed plus one additional day to turn in makeup work. [A/B Block Example: A student misses Monday and Tuesday of the week and he/she returns on Wednesday of that same week. Student work from Monday's absence is considered late after Friday, and student work from Tuesday's absent is considered late after the following Monday.]
- A student who does not make up assigned work within the time allotted by the teacher will receive a grade of zero for the assignment.
- A student is encouraged to speak with his/her teacher if the student knows of an absence ahead of time, including absences for extracurricular activities, so that the teacher and student may plan any work that can be completed before or shortly after the absence.
- A student will be permitted to make up tests and turn in projects due in any class missed because of absence. • Teachers may assign a late penalty to any long-term project in accordance with time lines approved by the principal and previously communicated to students.
- See UIL Eligibility ("No Pass/No Play") guidelines for additional information related to grades and UIL Eligibility.

CONSEQUENCES FOR ACADEMIC DISHONESTY

Daily Work

Every Offense

- Academic and Disciplinary Consequences
- Assign grade of zero
- Write a referral
- Teacher contacts parents
- Consequence from administrator would be a minimum of AC placement

Exams or Other Major Assessments

- Every Offense
 - Academic and Disciplinary Consequences
 - Assign grade of zero
 - Write a referral

- Teacher contacts parents
- Consequence from administrator would be a minimum of AC placement
- An alternative exam or major assessment can be completed for a maximum grade of 70%
- Academic Associate is notified and will schedule a meeting with student, parent and teacher

Material Recommended to be purchased

Clear Tape – 4 pack to be left in class

Scissors

Colored Pencils

Markers

Flash drive 8GB or Higher

Please label all of your property with first and last name and class period

Policies

IDs

All students will come to class wearing their school issued identification badge. Any student found without an ID will be sent to the cube to be issued a new one and charged five dollars.

Attendance

Attendance is extremely important in a computer/technology class. Each class missed is over two hours of computer time lost. School policy allows one day per absence and one day, I *may* allow more time for some make up work as some assignments may require extra time in the lab and cannot be done at home.

THE STUDENT AND PARENT MUST SIGN THE COMPUTER RULES POLICY, PROVIDED BY THE DISTRICT.

BBCTA Tardy/Absence Policy

A student is **tardy** if they are not in class at the **start** of the class. A student is **absent** if they are more than **twenty minutes** late to class.

- 1st tardy – warning
- 2nd tardy – student conference
- 3rd tardy – parent contact
- 4th tardy – office referral
- 5th tardy – office referral and detention
- 6th tardy – office referral and two detentions
- 7th tardy – office referral and ISS
- 8th tardy – office referral and two days of ISS
- 9th tardy and more – office referral and multiple days of ISS

Cell Phone/Electronic Devices

Out of respect for our learning environment, please silence your phone as you enter the class and place all electronic devices out of sight. During lecture and class discussions, this is important to maintain necessary focus. At appropriate times, electronic devices can be used in limited capacity, when agreed upon by the instructor and for specific educational purposes as a part of the curriculum.

Accountability

Our classroom is an amazing resource that must be shared, so:

Respect!!!

-The Equipment

-The People

-The Ideas

-The Environment

-The Process

-The Learning

We are on this campus to become more powerful people; to become leaders. Respect plays out in many ways, including paying attention, turning in assignments, being prepared and supporting each other. Mutual respect develops in a classroom as we demonstrate proper respect for ourselves, others students and property. When we achieve this *Respect*, we can then graciously point

out to one another that we are not acting in our own or the classes' best interest. As peers, I hope that you will help guide each Other's actions for our own development, and not act out of fear of being disliked. Giving insincere feedback is a waste of everyone's time.

Act in the intention of helping each other grow! Always be at your best and do your best.

If your actions cause harm I will ask that you take actions to repair what you have harmed, be it someone's feelings, materials or class equipment.

YOU CAN CHOOSE YOUR BEHAVIOR. YOU CANNOT CHOOSE YOUR CONSEQUENCE.

All district and campus policies will be followed and enforced in this classroom.

Possible Consequences include, but are not limited to:

Last one out of class
Stay after class
Change seat assignment
Call parents or referral to AP
Loss of computer/supply access

STUDENT & PARENT SIGNATURE PAGE
Robotics – Jimmie Green SR, IT-STEM and Robotics Instructor

Please sign and return this packet after reviewing the Course Syllabus, Classroom Policies and the Mansfield ISD Acceptable Use Policy (AUP).

My child and I understand that he/she must comply with these regulations. We realize that if he/she fails to abide by the rules, he/she will adhere to the sanctions listed and will not be able to participate in this computer-based lab or regular classroom.

District policy states that every student will **wear** an ID and have a **signed Acceptable Use Policy (AUP)** on file, every day to be able to access any MISD networked computer.

Your signatures below indicate that you have received, reviewed, and accept the course syllabus, classroom policies and the Acceptable Use Policy (AUP) of the Mansfield ISD.

Student's Name: _____

Student is Signature _____ Date: _____

Parent's/Guardian's Name: _____

Parent's/Guardian's Signature: _____ Date: _____

Grade Classification: _____