



Robotics 2 Syllabus

Mr. Gaber

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Course Goals:

- Deepen understanding of engineering as you participate in robot builds
- Compete in the current Vex IQ Robotics challenge.
- Expand your coding/programming skills to master automation with both command prompts, coding, and the use of sensors
- Collaborate with peers about solving problems and troubleshooting using VEX IQ Robotics

Robotics 2 Topics:

The topics being covered this year are of design, improvement, and effectiveness of machine systems in robots

Machine Systems:

- Chain and Sprockets
- Tanks Tread Drives
- Vertical Sliders
- "Wheel-Box" and Gearbox
- H-Drives (Omni-Directional Wheelbase)
- Intakes
- Advanced Linkages, Arms, and Friction Grabbers

Students will be required to maintain an engineering notebook (for robotics only), which will contain notes, user manuals, and classroom assignments. Your student should carry their robotics notebook to school each day they have robotics. Your student's notebook is a good resource for building, troubleshooting, planning, and collaborating during the course

Grades:

All CURRENT grades are in Canvas. Cumulative letter grades will be updated in Aeries at the 6-week, 12-week, and semester grading periods. Each of the following categories plays an important role in student learning and will make up the indicated percentage of the final grade.

- Projects, weekly activities & competition objectives 70%
- Engineering notebook, organization, code of conduct 30%

Competitions:

All robotics students will take part in district-wide intramural competitions based on VEX IQ game and objectives. This will be a great opportunity for students to challenge themselves and assess their learning while building community within our robotics program and beyond. Additional intramural event info will be communicated soon.

Behavior:

- Join class on-time, prepared, and ready to learn.
- Be respectful of yourself and others.
- Participate, follow directions, and ask questions as needed.
- Take responsibility for your own actions, assignments, and grades.
- Achieve to your very highest ability and be prepared to learn from mistakes.

It is my goal to ensure that each one of my students has an excellent year of academic and personal growth during their time in my class. Please don't hesitate to contact me if your student is experiencing any personal or home concerns that may impact their school performance or behavior.

Thank you,

Mr. Gaber
