

Robotics I

Local Course #: 82651

State Course ID: 13037000

Course Description:

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.

Link to TEKS:

[https://texas-sos.appianportalsgov.com/rules-and-meetings?\\$locale=en_US&interface=VIEW_TAC_SUMMARY&queryAsDate=08%2F07%2F2025&recordId=225555](https://texas-sos.appianportalsgov.com/rules-and-meetings?$locale=en_US&interface=VIEW_TAC_SUMMARY&queryAsDate=08%2F07%2F2025&recordId=225555)

First 9 Weeks Major Topics:

Python, Vex VR, Sensor Mazes

Second 9 Weeks Major Topics:

Programming Movement, Chassis Design, Competition Format, Intro CAD Assembly

Third 9 Weeks Major Topics:

Robotic Manipulation, Piece Interaction, Robot Control, Documenting Design w/ CAD

Fourth 9 Weeks Major Topics:

Game Theory, Full Robot-, Strategic-, and Iterative-Design, Planning Design w/ CAD