Intelitek Curriculum for Florida Applied Robotics Program

CTE Program aligned to address Florida's initiative for career readiness education



Intelitek education programs for project based learning and STEM pathways use robotics to create an immersive learning environment that engages students and enables educators. Intelitek is dedicated to delivering career readiness skills that increase employability and *Teach Today's Students for Tomorrows Workforce*.

The objective of the Florida Applied Robotics Curriculum aligns with the Intelitek philosophy and the Intelitek Robotics Curriculum offers educators an implementation ready solution to apply the state program.

Delivering robust and relevant education in a format that engages digitalnative students

About the Florida Applied Robotics Program

The program is a state designed curriculum framework to provide students with a foundation of knowledge and experiences in the principles and applications of robotics engineering.

The program enables students to gain transferable skills and learn to demonstrate science and math knowledge, technological tools, machines, instruments, material, processes and systems related to robotics.

The program is divided into four sections: Foundations of Robotics, Robotic Design Essentials, Robotic Systems, and Robotic Applications capstone.

Intelitek's Aligned Robotics Curriculum

Intelitek comprehensive learning solutions offer two programs that align with the Florida State curriculum.

Our Robotics Engineering Curriculum aligns with the required courseware and the Mechatronics with LabVIEW course delivers the Robotics capstone project.

In addition, these programs will prepare students to complete the CLAD certification which is a state approved certification. These programs combined with Intelitek's advanced learning tools enable the implementation of the Florida Applied Robotics Program

Program Benefits

- ▶ OUT-OF-THE-BOX ALIGNED CURRICULUM
- ▶ HANDS-ON, ENGAGING AND STUDENT FOCUSED PROGRAM
- ► STUDENTS OBTAIN INDUSTRY-RECOGNIZED CREDENTIALS THAT VALIDATE SKILLS
- ▶ DRIVEN BY INTELITEK COMPREHENSIVE LEARNING SOLUTIONS





REC - Robotics Engineering Curriculum

Intelitek's Robotics Engineering Curriculum (REC) is a two year program designed to provide students with a comprehensive knowledge in physics, programming, mechanical systems and electrical and electronics systems. These core concepts are delivered through targeted activities and projects that use robotics as a vehicle to convey the principles of engineering.

Based around the Intelitek LearnMate LMS, the program includes courseware, our EasyC® programming software with simulation capabilities and the VEX® EDR robotics hardware.

The REC program is aligned with the Florida Applied Robotics' sections for:

- Foundations of Robotics
- Robotic Design Essentials and
 - Robotic Systems courses.

Mechatronics with LabVIEW

Mechatronics with LabVIEW is a project-based learning program centered around LabVIEW® and the TETRIX® PRIME robotics build kit. This program focuses on system design, build and control working with LabVIEW software controls.

Throughout this hands-on, 90-hour course, students will learn gain an understanding of LabVIEW core features and functionalities while also learning about Mechatronics using the advanced robotics kit. Like the REC program, this program is delivered in a digital format blending learning with interactive online delivery, simulations and team-based activities.

The Mechatronics with LabVIEW program is aligned with the Florida Applied Robotics to fulfill the Robotics Application Capstone requirement





CLAD Certification

Upon completion of the Mechatronics with LabVIEW capstone course, students will be prepared to complete the CLAD (Certified LabVIEW Associate Developer) certification.

This National Instruments certification is the first in the three-part NI certification process. It indicates that the student has a broad working knowledge of the LabVIEW environment, a basic understanding of coding and documentation best practices, and the ability to read and interpret existing code.

Best of all, this certification is approved and accepted by the Florida Department of Education and is a well-known, industry sought certification that students can add to their resume

Coderz

Coderz is a powerful, easy to use platform for teaching in-demand real-world technologies such as object-oriented programming, robotics and physical computing.

With Coderz, you can offer a unique learning experience that engages students with STEM while promoting 21st Century skills:

- Computational thinking
- Problem-solving
- Self-learning

Coderz is a tool that enhances your robotics programs with cool simulations, upgrades coding classes with object-oriented robot programming and increases student engagement with STEM through robotics competitions, after school activities, flipped classrooms and more





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