

Academy of Information Technology & Robotics

Spruce Creek High School

- No class periods.
- Academy Learning Areas: Science Lab, English Lab, Social Science Lab, Math Lab, Simulation Workshop and Technology Labs. All labs located in the same area of the school, adjacent to each other or across the hallway.
- All students will have laptops to be used throughout the day and at home.
- Each AITR team teacher is assigned 25 students. The teacher has the same students all four years of high school.
- The AITR teacher team is comprised of teachers from each subject area.
- The school year is divided into six 6-week sessions.

Academy Structure

- Students will complete an interdisciplinary team project every five weeks and will present their work during week six.
- Students will also complete individual assignments in the six-week focus area during the independent study time and at home. These assignments are related to the current project, will be computer based and will be uploaded to the appropriate teachers for grading.
- The project presentations will be made to the AITR teachers, AITR Advisory Board members and community business partners. Students will be expected to wear business professional dress for the presentations and will receive immediate feedback on their work.
- Projects will be graded by the AITR team teachers using rubrics based on Florida Sunshine State Standards for each subject area represented in the project. Grades are also distributed by subject area in the project.
- Students can arrange to meet in labs, common areas or outside of school to work as teams on the interdisciplinary projects.

Project-Based Learning

- Teachers will hold workshops and seminars in their subject areas relating to the current assigned projects. Students will sign up for the time slots for seminars. There will be a requirement for the number and types of seminars/workshops students must attend.
- Teachers will act as mentors and facilitators for the projects, monitoring student progress and holding progress meetings with the student teams.
- Students will work with all the Academy teachers on each project.

Teachers As Facilitators

- All students will take common assessments twice a year to assess learning – FCAT or SAT style general knowledge exams. There will be remediation available to students who require it.
- Student attendance will be done with a required daily discussion question posted on an online teacher-run discussion forum. Questions will be posted and tracked by the student's primary teacher. Questions will come from collaborative efforts of the teacher team and will reflect standards of the current focus area.

Assessment of Learning

Year-Long Project

Juniors & Seniors

Students may apply to be part of an elite project group during their Junior & Senior years. They can choose between Robotics & IT:

Robotics:

FIRST Robotics Competition
Team

Team 2152

The Nest – providing services to the school in:

Digital Design
Web Design
Programming
Computer Repair
Software Help Desk
Game Design

Sample Project

Space: The Final Frontier

Student Team Project

Your team will develop a Lander and rover to travel to the planet or star of your choice (not the Moon or Mars). Your team must:

Design the prototype of the Lander.

- Research surface, atmosphere and gravity.

- Decide how it will land

- Determine how long it will take to get there

- Determine how it will get there

Design the prototype of the rover.

- How will it track the surface?

- How will it move?

- How fast and how far will it go?

- How will it be powered?

Must obtain private funding.

- How much will it cost? How will the investor benefit?

- Convince an investor by presenting facts and info including:

 - History of space travel

 - Other rover/Lander experiences

 - Explain why your idea would work

Deliverables: Prototypes, Research Notebook, Specs, Business Plan, Marketing Presentation.

Sample

AITR Daily Schedule – Project Work – 5 Weeks

Monday, August 23, 2010	Tuesday, August 24, 2010	Wednesday, August 25, 2010	Thursday, August 26, 2010	Friday, August 27, 2010
7:30 AM - 8:30 AM Independent Study Time	7:30 AM - 8:30 AM Independent Study Time	7:30 AM - 8:30 AM Independent Study Time	7:30 AM - 8:30 AM Independent Study Time	7:30 AM - 8:30 AM Independent Study Time
8:30 AM - 11:00 AM Project Work	8:30 AM - 11:00 AM Workshops/Seminars	8:30 AM - 11:00 AM Project Work	8:30 AM - 11:00 AM Workshop/Seminars	8:30 AM - 11:00 AM Project Work
11:00 AM - 12:00 PM Lunch	11:00 AM - 12:00 PM Lunch	11:00 AM - 12:00 PM Lunch	11:00 AM - 12:00 PM Lunch	11:00 AM - 12:00 PM Lunch
12:00 PM - 1:45 PM Workshops/Seminars	12:00 PM - 1:45 PM Project Work	12:00 PM - 1:45 PM Workshops/Seminars	12:00 PM - 1:45 PM Project Work	12:00 PM - 1:45 PM Workshops/Seminars
1:45 PM - 2:45 PM Independent Study Time	1:45 PM - 2:45 PM Independent Study Time	1:45 PM - 2:45 PM Independent Study Time	1:45 PM - 2:45 PM Independent Study Time	1:45 PM - 2:45 PM Independent Study Time

AITR Daily Schedule – Project Presentation Week

Monday, October 04, 2010	Tuesday, October 05, 2010	Wednesday, October 06, 2010	Thursday, October 07, 2010	Friday, October 08, 2010
7:30 AM - 8:30 AM Independent Study Time	7:30 AM - 8:30 AM Independent Study Time	7:30 AM - 8:30 AM Independent Study Time	7:30 AM - 8:30 AM Independent Study Time	7:30 AM - 8:30 AM Independent Study Time
8:30 AM - 11:00 AM Project Presentations	8:30 AM - 11:00 AM Project Presentations	8:30 AM - 11:00 AM Project Presentations	8:30 AM - 11:00 AM Project Presentations	8:30 AM - 11:00 AM Meetings with Teachers
11:00 AM - 12:00 PM Lunch	11:00 AM - 12:00 PM Lunch	11:00 AM - 12:00 PM Lunch	11:00 AM - 12:00 PM Lunch	11:00 AM - 12:00 PM Lunch
12:00 PM - 1:45 PM Project Presentations	12:00 PM - 1:45 PM Project Presentations	12:00 PM - 1:45 PM Project Presentations	12:00 PM - 1:45 PM Project Presentations	12:00 PM - 1:45 PM Meetings with Teachers
1:45 PM - 2:45 PM Independent Study Time	1:45 PM - 2:45 PM Independent Study Time	1:45 PM - 2:45 PM Independent Study Time	1:45 PM - 2:45 PM Independent Study Time	1:45 PM - 2:45 PM Independent Study Time