



Irvington Public Schools

Office of the Superintendent

Dr. April Vauss,
Superintendent



Rita Owens STEAM Academy is a satellite campus of Irvington High School located at 36 Mount Vernon Avenue, Irvington, New Jersey. The Rita Owens STEAM Academy is named for the beloved former Irvington art teacher, Rita Owens. Ms. Owens taught in the Irvington School District for many years and was more than a teacher to the scholars she encountered. She was a mother, counselor, social worker, and friend to the countless number of scholars and community members who had the opportunity to come across her path.

In its inaugural year it will have approximately 100 scholars that show an interest and acumen for science, technology, engineering, arts, and/or mathematics. Every ensuing year approximately 100 students will be added to the Academy.

The Mission of the Rita Owens STEAM Academy is to inspire and instruct all students to think critically, creatively, and responsibly, to embrace diversity, and to pursue their dreams with purpose. Our mission is enhanced through a multifaceted approach and a solid commitment to student growth and development by all District stakeholders, including, but not limited to, students, parents, administrators, teachers, custodians, secretaries, security, support staff, and the community-at-large.

The primary purpose of the Rita Owens STEAM Academy is to improve student academic achievement by (a) implementing the District's aligned Standards curricula; (b) providing staff development that promotes student engagement and academic rigor; (c) conducting data analysis to inform instruction; and (d) monitoring teaching and learning to ensure the alignment of curriculum, instruction and assessment.

The Rita Owens STEAM Academy is dedicated to academic success through a rigorous and relevant curriculum that empowers students to become productive, responsible, and self-directed learners and citizens. The curriculum is designed to meet the individual needs of all students through authentic assessment, research-based instruction, and responsive differentiation that encourages students to think critically and to connect all learning to life beyond the classroom. Further, the curriculum is designed to explore big ideas, essential questions, and promote enduring understandings. Technology is also integrated throughout the curriculum to promote 21st Century thinking and learning. The curriculum is grounded in critical thinking skills to help students solve real-life complex problems, and will deliver high quality team-based learning experience for every scholar.

A. EXTENDED SCHOOL DAY MODEL

1. Students attending from 7:45am – 2:30pm;
2. Teachers, from 7:30am – 3:30pm
3. Professional Development Weekly release- Students will be dismissed at 12:30 twice a month on the 1st and 3rd Tuesdays.

B. ADMISSION CRITERIA

- Diagnostic Test (Not applicable for 2022-2023 school year)
- Interview process



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- 6th/7th/8th NJSLA score of Level 3
- Middle School transcripts/Report card
- Attendance Records
- Discipline Records
- Quarterly Benchmarks
- Teacher Recommendations

*Provisional admission can be granted pending the receipt of test scores and other records

C. APPLICATION DEADLINE

- February 28th of every school year (except for the 2022/2023 school year)

D. ON CAMPUS & EXTENDED EXPERIENCES -The best club combines the interest of the teacher with something that attracts the students.

CLUB/PROGRAM	Days	Times
Math Club Robotics Club Website Design Cybersecurity Language Club	Tuesday	3 - 4 pm
Photography Game Development Student Council	Wednesday	3 - 4 pm
Volleyball Drone Club Mock Trial	Thursday	3 - 4 pm
Basketball	Friday	3 - 4 pm
Office Hours	Monday - Friday	3 - 4 pm

E. DUAL ENROLLMENT PARTNERSHI/COLLABORATION

1. New Jersey Institute of Technology (NJIT)*
2. Syracuse University
3. Essex County College
4. Pillar College

*In process



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F. COURSE SEQUENCE

	Grade 9	Grade 10	Grade 11	Grade 12
Humanities				
English	American Experiences*	Political Studies*	HUM 101 English Composition I** &	HUM 101 English Composition II**
History	English I + US History I	English II + US History II	World History I	
Mathematics				
	Integrated Math I* <i>or</i> Integrated Math II*	Integrated Math II* <i>or</i> Integrated Math III*	Integrated III* <i>or</i> MTH 111 (Calculus I)**	MTH 111 Calculus I** <i>or</i> MTH 112 Calculus II**
Science				
	PLTW Principles of Biomedical Science/Biology*	Chemistry*	AP Environmental Science**	PHY 121/A Physics II/Lab** <i>or</i> CHEM 125/A General Chem/Lab**
Mechanical Engineering Track				
	Introduction to Engineering and Design*	Computer Integrated Manufacturing*	Principles of Engineering*	Engineering Design and Development*
Biomedical Engineering Track				
	PLTW Principles of Biomedical Science/Biology*	Human Body Systems*	Medical Interventions*	Biomedical Innovation*
Computing Sciences Track				
	Computing Ideas*	Introduction to Computer Science (Python)*	AP Comp Science A**	PLTW Cybersecurity*
Culinary Pathway Completer				
	Introduction to Culinary Arts	Culinary Arts I	Culinary Arts II	Work-Based Youth Apprenticeship, or Capstone Project
Manufacturing Track				
	Fundamentals of Engineering	Introduction to Design Tech I	Introduction to Design Tech II	Work-Based Youth Apprenticeship or Capstone Project

* Honors Level Course

** Dual Enrollment/College Level Course and Advanced Placement Level Course



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G. ELECTIVES

- CS 113 Roadmap to Computing (3 credits)
- Econ 265 Microeconomics (3 credits)
- Econ 266 Macroeconomics (3 credits)
- FED 101 Fundamentals of Engineering Design (2 credits)
- SS 201 Economics (3 credits)
- MET 103 Engineering Graphics & Intro to CAD (2 credits)
- MET 105 Applied CAD (2 credits)
- IT 101 Introduction to Information Technology (3 credits)

Art Classes

- Graphic Art & Digital Design I
- Graphic Art & Digital Design II

World Language Classes

- Spanish
- French
- Chinese/Mandarin (2023-2024 school year)
- Arabic (2023-2024 school year)

Manufacturing Classes

- Engineering CAD I/2
- Wood Technology ½
- Residential Technology and Home Maintenance
- Electrical wiring

H. COURSE PATHWAY

Mathematics

- Integrated Mathematics I Honors (5 credits)
- Integrated Mathematics II Honors (5 credits)
- Integrated Mathematics III Honors (5 credits)
- **NJIT MATH III Calculus I: (5 credits; 4 NJIT Credits)**

Humanities

- American Experiences Honors (10 credits)
- Political Studies Honors (10 credits)
- **HUM 101 English Composition: Writing, Speaking, Thinking I (5 credits; 3 NJIT credits)**
- **HUM 102 English Composition: Writing, Speaking, Thinking I (5 credits; 3 NJIT credits)**



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Science

- **EVSC 125: Fundamentals of Environmental Science (5 credits; 3 NJIT credits)**

Biomedical Science Track Offerings

- Principles of/Introduction to Biomedical Science Honors (5 credits)
- Human Body Systems Honors (10 credits)
- Medical Interventions Honors (10 credits)
- Capstone Project & presentation

Engineering Track Offerings

- Introduction to Engineering and Design Honors (10 credits)
- Computer Integrated Manufacturing Systems Honors (10 credits)
- Principles of Engineering Honors (10 credits)
- Capstone Project & presentation

Culinary Track offerings

- Introduction to Culinary Arts
- Culinary Arts I
- Culinary Arts II
- Work-Based Learning, Youth Apprenticeship, or Capstone Project

Computing Science

- Explorations in CS: Computing Ideas (5 credits)
- Computing Science I: Introduction to Computer Science Honors (10 credits)
- AP Computer Science A (10 credits)
- **NJIT's CS 100: Roadmap to Computing (5 credits; 3 NJIT credits)**

Manufacturing Vocational offering

- Fundamentals of Engineering
- Engineering CAD I/2
- Wood Technology ½
- Introduction to Design Tech 1/11
- Residential Technology and Home Maintenance

I. Partnership with New Jersey Institute of Technology (NJIT)

Option #1: The Advanced Admissions Program provides an opportunity for qualified 9th graders to apply to NJIT prior to the start of their Sophomore year for early admission to NJIT. Students



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that apply as rising Sophomores and meet NJIT's requirements upon graduation are guaranteed admission into NJIT.

Option #2: Advanced Academic Achievement (Dual Enrollment) program provides an opportunity for qualified 11th and 12th graders to earn college-credits at their high school during the academic year. These courses will be taught by our high school teachers who have been certified by NJIT as adjunct faculty members in the related NJIT departments.