

Benefits of STEAM Academy

*Provides an edge for students interested in pursuing STEAM fields in college or workplace.

*Future job outlook is trending toward STEAM fields and average starting compensation in STEAM fields outpaces careers in other fields.

*Opportunities to hear from professionals working in STEAM fields

*Opportunities to participate in STEAM enrichment activities and courses

*Meet people with similar interests

*Priority enrollment in pipeline courses

*Flexibility in all pipelines allows for opportunities to enroll in multiple non-STEAM electives

Requirements

*Maintain a C or better average in each STEAM course in addition to meeting all graduation requirements.

*Completion of all required courses within pipeline

*Completion of a capstone or internship by the end of May of senior year

STEAM ELECTIVES

SCIENCE

Anatomy and Physiology, Astronomy
Dynamics of Healthcare, Environmental Science
Forensics, Marine Science
AP Science (Biology, Chemistry, Physics, Environmental)

TECHNOLOGY & ENGINEERING

Architectural Design, Pre-Engineering
Engineering Graphics & Computer Modeling
Game Design, Virtual Production
Classical and Quantum Computing

MATH

Pre-Calculus
Calculus, AP Calculus
Computer Science I & II
AP Computer Science
AP Computer Science Principles
The Art of Problem Solving I & II

ART

Foundations of Art, Advanced Art
Art Portfolio, AP Studio Art
Ceramics I & II
Digital Media and Animation
Intro to Graphic Arts, Interior Design
Photography II, III, & IV

MUSIC

Music Theory, AP Music Theory
Music Appreciation, Band
Musical Stagecraft, Musical Theater Performance
Chorus, Orchestra, Guitar Techniques

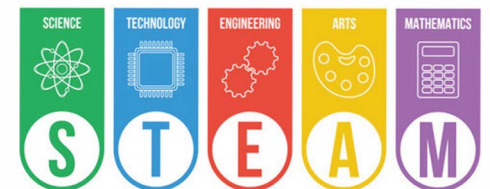
OTHER

Accounting,
AP Human Geography
Business Management
Intro. to Business
Intro. to Economics, AP Economics
Intro to Psychology, AP Psychology
Marketing Ed
Sociology/ Minorities
Sports & Entertainment Marketing Business Finance
AP Seminar, AP Research

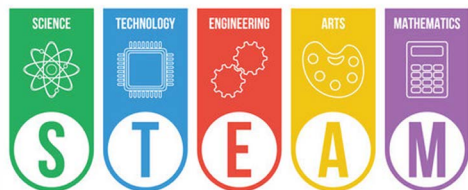


MONMOUTH REGIONAL
HIGH SCHOOL

STEAM
ACADEMY



Monmouth Regional High School
1 Norman J Field Way
Tinton Falls, NJ 07704
phone: 732-542-1170
fax: 732-542-5815



Mission Statement

The Monmouth Regional STEAM Academy is open to all students who wish to develop into curious and academically skilled young people who aspire to be principled and compassionate leaders.

The STEAM Academy will provide students with the experiences, skills, and values that will prepare them for the 21st century workforce in these fields. Students can choose one of ten personalized pipelines with concentrated work in Science, Technology, Engineering, Computer Science, Art, or Mathematics. Participants will complete a capstone project or internship within their desired concentration. Our programs strive to produce students who are self-motivated, competent, life-long learners who will be comfortable with research, presentation, and investigating questions they will face throughout their careers.

STEAM ACADEMY MAJORS

Students interested in the STEAM Academy must take all courses needed to satisfy graduation requirements, four years of math & science, and the selected courses in each discipline area.

COMPUTER SCIENCE REQUIRED COURSES

Computer Science I & II
 AP Computer Science
 AP Computer Science Principles
 3 STEAM Electives of choice

SCIENCE REQUIRED CLASSES

Biology, Chemistry, Physics
 AP Science of choice
 3 additional science classes
 *For Healthcare Focus must include
 Dynamics of Healthcare
 Anatomy & Physiology
 3 STEAM Electives of choice

MATH REQUIRED COURSES

AP Calculus AB or BC
 Art of Problem Solving I & II
 Probability and Statistics
 3 STEAM Electives of choice

ENGINEERING REQUIRED COURSES

Engineering Graphics & Computer Modeling
 Electronics
 Any 2 of the following:
 Pre-Engineering, Game Design, Virtual Production,
 Robotics, Classical and Quantum Computing
 3 STEAM Electives of choice

ARCHITECTURE REQUIRED COURSES

Engineering Graphics & Computer Modeling
 Architectural Design
 Physics
 3 of the following STEAM Electives
 Pre-Engineering, Foundations of Art, Digital Media,
 Interior Design, Psychology (Intro or AP),
 Environmental Science, AP Physics, Game Design
 1 STEAM Elective of Choice

3D GAME DESIGN REQUIRED COURSES

Engineering Graphics & Computer Modeling
 Game Design
 Computer Science I, II, or AP
 Music Theory or Music Appreciation
 3 STEAM Elective of Choice

VIRTUAL PRODUCTION REQUIRED COURSES

Engineering Graphics & Computer Modeling Virtual
 Production
 Foundations of Art or Digital Media and Animation
 Music Theory or Music Appreciation
 3 STEAM Elective of Choice

PHOTOGRAPHY REQUIRED COURSES

Intro to Graphics
 Photography II, III, & IV
 3 STEAM Electives of choice

SCULPTURE REQUIRED COURSES

Ceramics I & II
 Art Portfolio
 1 of the following STEAM Electives:
 Foundations of Art, Independent Study in Ceramics
 3 STEAM Electives of Choice

DRAWING & PAINTING REQUIRED COURSES

Foundations of Art
 Advanced Art
 Art Portfolio
 2 of the following STEAM Electives:
 Intro to Graphics, Art Portfolio, or AP Studio Art
 2 STEAM Electives of Choice