

Courses in Biomedical Science, Information Technology and Engineering

Engineering Course Opportunities			
Middle School	Level 1	Level 2	Level 3
Recommended	Pre-req. for Level 2	Level 1 is Prereq.	Level 2 is Preq. (Qty: 1)
8 th Grade STEM / Engineering Course	Introduction to Engineering and Industrial Design (Level 1, yr, conv)	Engineering and Industrial Design (yr, conv) AND/OR Product Design and Modeling (sem, conv) AND/OR Architectural Engineering (sem, conv) AND/OR	Engineering Capstone (yr, weighted)
		Engineering Academy (yr, 3 periods, weighted)	



Recommended for Information Technology and Engineering Academy

- Four years of math and science courses
- Engineering Principles (8th grade)
- Intro. To Engineering and Industrial Design (Level 1)
- Principles of Business
- Financial Planning
- Accounting 1
- Intro. To Computer Programming
- Computer Science

*Note: The Information Technology Academy does not have any pre-requisites.

Biomedical Research Academy

Pre-requisite: Biology, Chemistry

Recommended: Four years of math and science courses



College and Career Academies

Academies:

- **Open enrollment** – student from any school can enroll pending application and pre-requisites
- **Programs are for 2 to 3 periods of the day, depending on academy**
- **AP and dual enrollment college credits available, depending on academy and passing criteria**

Engineering Academy: Focuses on developing good engineering practices from initial brainstorming through design, building and testing. Through an emphasized focus on hands-on learning, students learn university and industry standard software packages in 3D design, programming and circuitry. Courses include Fundamentals of Engineering, Electronics and Controls Systems and Capstone Project. Upon completion, students can take Fresh. Eng. (ENG 1181 and ENG 1182) the following year on the OSU Campus. Located at Coffman High School.

Biomedical Research Academy: Underlying practices include technical writing, 3D art, and biological research protocol. Biological problems and solutions are investigated through authentic case students, inquiry-based queries and open experimentation. In addition, students will get a chance to explore medical professions in a variety of specialties through regular classroom visits from industry professionals and field trips. Courses include AP Biology, Medical Interventions, Anatomy and Physiology, Advanced Research Topics and 3D Art. Located at Scioto High School.

Information Technology (IT) Academy: This new program allows juniors and seniors to take college-level information technology and computer science courses. First year courses include Programming, Information Technology, Programming, and Systems Analyst. Second year courses include Web Design, 21st Century skills, capstone project. Upon successful completion, students will have 14 transcript credit hours with Columbus State, work experience and will be eligible to take testing for national certificates tests such as HTML, Java, .NET and SQL. Located at Scioto HS.

Other Academy Opportunities:

Young Professionals Academy: Students learn time and stress management, decision-making, career testing, teamwork, business writing, resume development, interview skills, networking, collaboration, social media, portfolio development and more. Semester-long academy located at Scioto High School although students learn through work experience for most the academy.

Business Academy: Students will contribute and study all aspects of running a real world business. Students will gain 21st century skills during this exciting, experiential learning opportunity where they operate Dublin Designs, an existing full service screen-printing and design company. Located at Jerome High School.

Teachers Academy: Students will be given an opportunity to get a head start on the path to a successful career in education. Located at Scioto, although students placed at schools throughout the district for experience.

Visit the STEM Website: [Dublin City Schools ->Parent Resources->STEM](#)