



**Position Summary: 3D Design/Engineering Instructor**  
**Part-time for 15-20 hours/week**

The Buffalo Center for Arts and Technology Youth Arts Program (YAP) provides support to Buffalo Public and Charter High School students: creating strong pathways to postsecondary education and careers through a connection with arts and technology instruction; developing and maintaining positive personal agency in our youth; and supporting BCAT youths' social and emotional needs. This part-time position as a 3DArts/Engineering Instructor reports to the Youth Arts Program Director. The position requires some flexibility with the work schedule; but normally requires teaching on-site at BCAT (or designated facility) between 3:00pm-6:30pm on a minimum of two and maximum of four days Monday through Friday throughout the school year (most often reflective of the Buffalo Public School schedule). A few evenings and weekends may be required over the course of the year.

*3D Printing*

*3D printing uses computer-aided design (CAD) to create three-dimensional objects through a layering method. Sometimes referred to as additive manufacturing, 3D printing involves layering materials, like plastics, composites or bio-materials to create objects that range in shape, size, rigidity and color. Today, 3D printers can be seen building everything from homes to cars and even viable personal protective equipment (PPE), which are used by healthcare workers all over the world in the fight against COVID-19. BCAT will have 3D printers onsite for hands on experiences.*

**SHARED VALUES AND EXPECTATIONS**

The successful candidate will:

- Serve as an ambassador of BCAT, demonstrating our mission and values in a positive and professional manner and acting as a role model for our high school students
- Show a strong commitment to building a community whose values are to “respect, listen, embrace, shape, learn, and influence.”
- Be committed to meeting curriculum standards and delivering high-quality, professional instruction
- Demonstrate professionalism and accountability
- Take initiative to analyze and solve problems
- Respond to students, family member and colleague needs in a timely and respectful manner
- Maintain a high standard of ethics, integrity and confidentiality

**Job Responsibilities:**

- Assist in developing a curriculum focus with long-term (30 week) lesson plans that include definition of purpose (why are we teaching this), measurable goals (what will we accomplish), objectives/actions (how will we get there) and mechanisms for measuring progress (what data will we collect to ensure we are meeting goals)
- Support external communications
- Provide on time and on target classroom instruction as required
- Respond to emails and other communications in an agreed upon timeframe
- Collaborate with colleagues on the YAP team and across the organization
- Be respectful and welcoming to all BCAT youth and their families
- Fully participate in teaching responsibilities at all times
- Adhere to BCAT policies and procedures; ensure youth adhere to policies and procedures
- Refer youth to receive additional counseling support as needed

- Maintain high expectations for youth

#### **Youth Arts Program Duties:**

- Submit curriculum, lesson plans, course objectives and outcome/progress data as required and on time
- Collaborate with other YAP teaching and team members to identify ways to leverage collaboration and joint exercises to benefit youth development
- Maintain student attendance and progress data
- Develop and sustain productive relationships with BCAT high school youth participating in the 3D class
- Participate in YAP program development, evaluation and enhancement
- Participate in shared organizational responsibilities as needed, including field trips, gallery events, community events, etc.
- Demonstrate the following:
  - Classroom organization skills for efficient use of class time
  - Ability to articulate and relate to high school students
  - Competence at creating high levels of student engagement through activities, community building, and student-centered learning including the use of live classroom tools
  - Sensitivity to and an understanding of the diverse academic, socioeconomic, cultural, disability and ethnic backgrounds of community
  - High levels of accountability and proactive
  - Ability to work under time-constraints
  - Excellent organizational, verbal and written communication skills
  - Knowledge of Buffalo Public and Public Charter School Systems
  - Proficiency in Microsoft Office
- Other duties as assigned

#### **Education and Experience Requirements**

- Minimum Associate's degree in STEM field (physics, engineering technology, CAD, or related field). Bachelor's or Master's degrees welcome
- 1 to 3 years of experience in Digital Design
- Minimum one year of teaching experience preferred (Minimum of 3 years' experience in the field of study)
- Knowledge of 3D printers and their parts; Ender 3 experience preferred
- Ability to design and model in objects in CAD software
- Experience working directly with and maintaining 3D printers
- Experience developing curriculum, lesson plans, and assessments
- Self-motivated, flexible, and able to work in a team environment with minimal supervision
- Strong interpersonal skills to interact with students, families, leadership, and peers.
- Ability to organize a classroom for efficient use of class time
- Demonstrated ability to articulate and relate to high school students
- Ability to create high levels of student engagement through activities, community building, and student-centered learning including the use of live classroom tools
- Sensitivity to and an understanding of the diverse academic, socioeconomic, cultural, disability and ethnic backgrounds of community
- High levels of accountability and takes initiative to succeed
- Able to work under time-constraints
- Excellent organizational, verbal and written communication skills
- Knowledge of Buffalo Public and Public Charter School Systems
- Proficiency in Microsoft Office
- Proficiency with using Apple hardware and software

- Ability to pass a background check

**How to apply:**

Interested candidates should submit a resume, cover letter and the names of three references to [eisenhauer@bufcat.org](mailto:eisenhauer@bufcat.org). Applications will be accepted until position is filled. Incomplete applications will not be considered.

**About Buffalo Center for Arts and Technology**

BCAT's mission is to provide opportunities for careers through the arts and workforce development. Our vision is improved high school graduation rates with transition plans into college or careers; access to safe environments to learn and prosper; the development of family-sustainable wage earners; and significant contributions to economic and social growth in Buffalo. BCAT is based on MacArthur Fellow Bill Strickland's Manchester Bidwell Corporation and is a results-driven organization.