



## Keystone Academy Job Description

Position: TLC-Director of KEyTEC  
Reporting to: Reports to Assistant Head of School for Teaching and Learning  
Department: Teaching and Learning  
Period of Appointment: Full-time (With leadership stipend)  
This position does not rotate

Compensation may be adjusted from current scale to account for:

- Hours expected/required outside the standard work week
- Elevated level of technical and educational experience required for this position
- Years worked in industry that is outside education but is directly applicable to the position

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### Job Description

The Director of KEyTEC will provide technical and educational leadership for Keystone's Rapidly developing Emergent Technology and Engineering programs and facilities. This position is responsible for supporting Emergent Technology and Engineering programs at all grade levels, for all extracurricular programs, and with all designated external partners. This position will also work in collaboration with the School Steering group to advance Keystone's strategic objectives with particular focus on STEM, STEM connected service, Specialized STEM programs, STEM facilities and pedagogy development.

### Duties and Responsibilities

- Co-Design, review, and implement curriculum in support of Emergent Technology and Engineering programs
- Focused support for TSET and EET programs (instruction, project design, student support)
- Design and lead fabrication for custom curricular materials
- Support curriculum integration with existing K-12 programs/classes/courses in support of Emergent Technology and Engineering programs
- Oversee and manage all school (current and future) fabrication/Engineering and emergent technology spaces with special focus on KEyTEC and primary EET labs.
- Oversee and manage technicians supporting "special spaces" such as but not limited to the cooking room and school greenhouse.
- Engineering and/or emergent technology facility design



- Coordination of facility project management (in cooperation with facilities and operations)
- Coordination of the ordering for the material/ technological outfit of spaces
- Oversight of ordering for Design and Engineering related materials (school-wide)
- Coordinating vendors
- Coordinating machine or technology service/maintenance
- Coordinating other needed software or facilities contracts in conjunction with operations and the Director of Digital Learning and Innovation
- Overall lead for all ongoing lab operations and safety
- Direct supervision of school lab technicians (Design, Engineering, specialized spaces)
- Coordination of visits and exchanges with outside educational institutions, students or government entities (In coordination with government affairs and ASSH for T&L)
- Coordination and/or support for ongoing service projects, internships, or other external opportunities related to Emergent Technology and Engineering
- Providing direct instruction as needed in classes/courses K-12 (with consideration for time constraints of other duties)
- Providing training/ seminars, advice to faculty, academic staff, facilities staff, and Keystone's community/ international partners
- Proposes, maintains and holds budget for fabrication and emergent technology spaces
- Takes the lead on recruitment for lab technicians and aids with faculty recruitment related to engineering, Design, fabrication, and emergent technology.
- Other duties as assigned by the Assistant Head of School for Teaching and Learning of the Executive Head of School.

#### **Desired Technical Qualifications**

Undergraduate degree in Engineering/Engineering Technology or equivalent engineering experience and training

Master's degree (or advanced training) in design, engineering, technology education, computer science, mechatronics, robotics or equivalent degree, training or experience

Experience with leadership or lab oversight in a K-12, university undergraduate or graduate educational setting.

Experience developing or integrating engineering curriculum



Teaching level competency with the following software and tools (or similar):

- CAD – Solid works, Onshape or similar
- CAM- Fusion, Autodesk, V-carve or similar
- CNC – router, lathe, mill (including 4-5 axis)
- 3D printers (variety of platforms and types)
- Water jet
- Laser cutter
- Welder – all types
- Small electronics
- Standard shop power tools including but not limited to: table saw, chop saw, drill press, sanders, joiners, pipe benders, air driven tools, grinders, polishers, drills, power drivers.
- Standard shop hand tools
- Finishing techniques such as painting, powder coating, staining, etc
- Ability to fabricate molds, work with laminates, create custom jigs, etc
- Ability to select appropriate materials for specific project applications
- Ability to predict (model) physical stress on systems/parts and select appropriate techniques and materials to avoid structural failure or danger
- Knowledge of/ ability to create and enforce lab safety procedures for metal work, woodwork, painting/finishing, electric systems, small electronics, CNC tools, power tools, additive fabrication systems.
- Experience with virtual reality, coding (all types), mixed reality, AI and other emergent technology highly desired but not required.

### **Desired Professional Competencies**

This position requires constant collaboration, clear mission focus, a self-driven mindset, and a love for both the education process and students. This is a leadership position that combines the need for high technical skills, project management, and a deep commitment to the design process. The position will often be instrumental in community service projects and community outreach. The Director of KEyTEC will frequently interact with students, faculty, and other adults who do not have the background normally found in professional engineering settings. Therefore, the director must guide, instruct, and help scale projects with extreme patience and understanding.



This position demands high creativity. Faculty, students, after school programs leaders, robotics leaders and many others will need continuous support to bring dreams to life.

A growth mindset is critical in this role. The Director of KEyTEC will research and introduce new technologies as they emerge. The expectation for this role is to position Keystone school to be a world leader in the exploration and wise application of emergent technologies for K-12 environments.

Strong leadership skills are required in this role. The Director of KEyTEC must have the ability to be highly directive, communicate clearly and effectively and be relentless in the pursuit of safety. At the same time, the Director of KEyTEC must be able to listen carefully to a wide variety of people and then help them develop the skills needed to succeed in their professional or student leadership roles.

Cultural competency is also critical to success in this role. The Director of KEyTEC must be able to collaborate with, design for, and teach others how to work with people from a wide variety of cultural backgrounds. It is critical for the Director of KEyTEC to deeply value cross cultural opportunities and experience.

The Director serves as the school face for tours, professional exchange and parent events. It is important for the Director to enjoy opportunities to represent the school and possess social skills to create positive impressions and form lasting relationships.

This role is one of a kind. It is critical for the Director to be self-directed, able to communicate as needed to clarify mission, and build collaborative relationships within the complex layers of potential Engineering facility users and stakeholders at the school.

Interested applicants should submit a cover letter, CV and statement of educational philosophy to [hr@keystoneacademy.cn](mailto:hr@keystoneacademy.cn). Position will be posted until filled.

Keystone