

## USW Casual Employment Job Description

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**Max. Hours of Work Per Week: 36.25**

**Hourly rate: \$32.00**

**Hours of Work:** Monday through Friday, 8:45am – 5:00pm. You will be provided with a schedule of hours. Please note that for some days, work hours may be varies to accommodate night classes and departmental events.

**Duration:** 6 months (with potential for extension)

### Purpose

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Performs core duties and responsibilities by:

Ensures that undergraduate engineering teaching laboratories are adequately equipped, prepared and maintained for undergraduate teaching. Assists laboratory supervisors by performing related duties in the laboratory as requested. This includes preparation of undergraduate laboratories for classes as required by academic timetables, including locker preparation, chemical and equipment preparation and maintenance, solution preparation and standardization, maintaining appropriate supplies of chemicals, and such housekeeping as is required to keep the laboratories in operating condition. This also includes maintenance of chemical, solvent and equipment storage and waste disposal operations relevant to the teaching labs. Providing training to teaching assistants and students of lab equipment and instrumentation. Coordinating routine maintenance of lab equipment. Providing safety training and ensuring compliance to lab safety procedures and standards. Ordering supplies within established limits. Serving as a technical resource on laboratory protocols, and experimental procedures and equipment.

### Qualifications & Skills

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**Education & Certification:** Bachelor's Degree.

**Movement:** The job requires a very high level of muscular coordination and/or manual dexterity and ability to deal with instruments, chemical unit operations and chemicals, to set up equipment, chemical units and apparatus, and to use tools when necessary for modifications, fixing and testing in laboratories. Some moving of laboratory equipment, chemical units and large volumes of solutions (lift 20 kg, move 50 kg) is required.

**Skills:** Good communication and organization skills are important. Excellent tact, sound judgement and discretion. Pleasant demeanor is required for dealing with students

## Responsibilities & Duties

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### **Provides laboratory support/services by:**

- Ensuring that the labs are clean and free from any hazards.
- Ensuring that the chemical engineering teaching labs in the Wallberg building and Lash Miller building are prepared, setup, and organized.
- Ensuring that the material needs of laboratory exercises and/or courses are available
- Preparing/supervising the preparation of the solutions, chemicals and reagents for the labs.
- Calibrating lab equipment.
- Maintaining an up-to-date inventory to identify the chemical demands and to optimize the cost and use of the chemicals in the department.
- Ordering chemicals and supplies for the labs.
- Providing detailed explanations and demonstrating procedures to students and/or employees on lab techniques, experimental procedures, and protocols
- Help other Laboratory Technicians with set-up and clean-up after all other laboratories, as required
- Be present during the lab period to assist the instructor and TA for students' safety practices, lab suppliers, and proper chemical dispensing

### **Provides general laboratory maintenance by:**

- Preparing, assembling and setting-up material, equipment and supplies used in teaching and/or research labs
- Maintaining, testing, and troubleshooting equipment, unit operations, and/or workstations.
- Coordinating routine maintenance of lab equipment
- Following rules and procedural instructions when removing and disposing waste from work area
- Maintaining lab preparation rooms

### **Provides administrative support for lab activities by:**

- Preparing instruction sheets for equipment use
- Preparing attendance sheets

### **Prevents injury and harm to others by:**

- Providing safety training and ensuring compliance to lab safety procedures and standards
- Paying close attention to occupational safety precautions

**Outcomes/Consequence of Error:**

- Ineffective preparation of laboratories may lead to disruption and delay in the undergraduate teaching program.
- Mishandling of hazardous chemicals or equipment that does not meet safety standards could result in physical injury.

**Challenges & difficulties**

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**Choice of Action:**

- The Undergraduate Teaching Laboratory Technician is expected to make decisions affecting minor and moderate elements of experiments independently (e.g. day-to-day decision), while major decisions are made in consultation with the supervising teaching stream professor.
- Independent action to select vendors for supplies of chemicals and other laboratory supplies.

**Challenges and Difficulties:**

- Implementation of new and/or maintaining existing laboratory methods to ensure accuracy, dealing with students and other researchers or partners.
- Meeting schedules laboratory deadlines.
- Breakdowns of equipment during laboratory sessions.
- Use of correct techniques and appropriate care and provision in preparation of reagents.
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**Working Conditions**

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**Working Environment/ Work Hazards:**

- Frequent routine interruptions with some distractions in chemical laboratory.
- Frequent exposure to elements while running chemical experiments.

**Interruptions and Distractions:** Frequent routine interruptions, some distractions.