

**UW CHEMICAL ENGINEERING  
TECHNICAL SUPPORT TEAM  
GRAD ORIENTATION  
JANUARY - 2018**

**WATERLOO  
ENGINEERING**

[engineering.uwaterloo.ca](http://engineering.uwaterloo.ca)



***WELCOME .....***

***to all our New Grad Students***

*and we wish you “All the Best”  
going forward with your Grad  
Studies.*

*We are here to HELP YOU...*

**Tom Dean**

**E6 4020**

**Ext. 31166**

***Director – Technical Operations and Dept H&S Chair***

- Overall responsibility -“smooth” department operations
- Overseeing the Health and Safety programs and improvements.

## **Technical Support Team of 11 Personnel:**

**Mandate is to provide support that is:**

- Capable
- Accessible
- Accountable
- Timely Action and Completion
- Quality Results



## Chem Eng – Safety Program:

- **“SAFETY FIRST”** culture and mindset – work safe, go home safe.
- **ChE Safety Committee – 6 members**
- **ChE Safety Manual - on-line (ChE Website)**
- **ChE Safety Audits – every Lab each Term,**
- **Engineering Safety Planning Committee – all Eng depts**
- **JHSC – member**
- **QNC Safety Committee – 2 members**



## Chem Eng – New Grad Safety Requirements:

1. Read **ChE Safety Manual** – Online (ChE Website).

<https://uwaterloo.ca/chemical-engineering/safety-first/chemical-engineering-safety-manual>

2. Complete **Safety Training** (5 year validity)
3. Plan Your Research and Create **Lab Hazard Analysis**.
4. Create and Submit **Research Safety Report** and **Declaration Page**.
5. Always **Work Safe**, and **Coach Others** to **Do The Same!!**



# UW - CHE TECHNICAL SUPPORT TEAM – PILLARS

E6 – DWE – QNC  
Faculty Teaching / Lab Research

“Safety First”

IS / IT- Computers, Electronics

Mechanical Works

Undergraduate Labs

Analytical Lab Svcs

Glass Blowing, LN2

Shipping and Receiving

Chemical Waste Disposal

## “PILLARS of SUPPORT”

- Ralph
- Co-op
- Tom
- Faculty

- Dennis
- Ravindra

- Bert
- Rick

- John
- Jen M.
- Cheryl
- Jen C.
- Neil
- Ahmad

- Ralph
- Co-op

- Ron

- Rick

- Rick

**WATERLOO**  
**ENGINEERING**

## Chem Eng – New Grad Safety Training Plan:

1. Safety Training Modules – mandatory 4 online courses:
  - SO1001 - Employee Safety Orientation
  - SO1081 - Workplace Violence Awareness
  - SO2017 - WHMIS 2015
  - SO1010 - General Lab Safety (only if performing Lab Research)
2. Research Safety Report, Hazard Analysis and Declaration Page
  - Required before starting Lab Research.
3. Lab Safety Fundamentals Review – 1 hr classroom training, ~ Feb.
4. Praxair / Swagelok Safe Compressed Gas Review – 1 hr classroom, ~Feb





# UW – CHE TECHNICAL SUPPORT TEAM

**Dennis Herman** E6 2002 dherman@uwaterloo.ca Ext. 32196

## Chem Eng Information Services

Dennis Herman - Manager of Information Services

Ravindra Singh - Information Technology Specialist

- Provide services for all Chem Eng departmental
  - Information Systems
  - Computer Systems
  - Data Network systems



## How to Submit “Service Requests” to the Information Services Group

1. Visit <http://chemeng.uwaterloo.ca>  
then Resources | Services, then RT (Request Tracker) Service Request(Web Form)
2. Send email to [request@che.uwaterloo.ca](mailto:request@che.uwaterloo.ca)
3. Only require Form Submission if request will take longer than 15 minutes to resolve

# UW – CHE TECHNICAL SUPPORT TEAM

## Chem Eng Information Services (cont'd):

### Account IDs

- One account for access to all campus services
  - Wireless, Quest, Learn, workstations, printers, etc.
  - Nexus – Microsoft Windows Active Directory account

### How to get one

- WATIAM account provided to all students at time of registration
- Postdocs and visitors must be manually created (visit Dennis Herman)

### Manage account IDs via WATIAM

- Waterloo Identity Access Management <http://watiam.uwaterloo.ca>
  - Maintain identity profile
  - Set email forwarding

### Credentials always specified as :

- Userid or “nexus\userid”
- Exception is Eduroam wireless (ie: userid@uwaterloo.ca)

## Information Services (cont'd):

### Email

- Connect.uwaterloo.ca
  - Connect - MS Exchange for faculty, staff and grads
  - Visitors here for longer than 1 year.
- Visitors here for 1 year or less use cloud email servers
  - Gmail.com, yahoo.com, Hotmail.com etc.
  - Can get Connect account with request from supervisor

### Xerox scanner, copier, printer accounts

- 1 Xerox work centre 5335 available for all grads in E6 5028 (Grad Lounge)
- Account IDs for consumables available from Rose E6 3024)
  - printing and copying
  - Scanning to email does not require account ID



# UW – CHE TECHNICAL SUPPORT TEAM

## Computer Services:

- Hardware specification, purchase, installation, connectivity, management, administration, diagnose, repair, decommissioning, and replacement.
- Office PC, document processing, data acquisition and/or control, data storage, data archival, etc.

## Networking

- Centrally managed
  - Department network = Nexus
- Self managed
  - Wired or wireless connectivity, self managed
- Remote access from off campus via <http://vpn.uwaterloo.ca>
  - UW VPN server = [cn-vpn.uwaterloo.ca](http://cn-vpn.uwaterloo.ca)

## Consulting Services:

- Application software/hardware specification, and choice
- Application troubleshooting, diagnosis, and repair
- Research grant application assistance



**Ravindra Singh**

**E6 1116/DWE2526B**

**Ext. 33139**

***Information & Technology Specialist***

**Services Provided:**

- Computer network infrastructure and network security systems
- Computer workstation procurement, commissioning, software deployment, desktop management, hardware and operating system diagnosis and repair, maintenance and decommissioning
- Computer server commissioning, software deployment, administration, hardware and operating system diagnosis and repair, maintenance and decommissioning
- Specialized computer subsystems procurement, commissioning, software deployment, administration, maintenance and decommissioning
- Data acquisition/control, computer presentation systems, computer imaging systems, etc.



# UW – CHE TECHNICAL SUPPORT TEAM

## Services Provided Continued...

- User support services including: account administration, application software diagnosis and repair, system and application software consulting, etc.
- Providing support for Electronics and Electrical problems; guiding for best service options
- Advise faculty members and graduate students on the arrangement of their experiments (electrical, electronic and data acquisition systems)
- Supervise and advise graduate students working in Electronic Shop
- Make electrical safety checks on electrical equipment and electrical outlets in laboratories
- Responsible for operation and maintenance of Electronic & Computer Shops:
  - **DWE 2526 and E6 1118**
- Instruct graduate students on how to handle sophisticated electrical and electronics equipment
- Computer and network services including Microsoft active directory management, authentication, firewall, anti-malware, file, print, backup, web, SharePoint, mail, data storage, etc.



**Bert Habicher**

**E6 1120**

**Ext. 36782**

***Mechanical Systems Designer***

**Services Available:**

- **Process Design**
  - Process flow examination
  - Process validation
- **Mechanical/ Structural Design**
  - Supporting structures and frameworks
  - Safety (pressure/load-bearing)
- **Fabrication**
  - Limited machine facilities
  - Limited welding facilities
- **Assembly**
  - Plumbing
    - > Soldering (hard and soft)
    - > Threading
    - > Tube compression fitting
  - **Frameworks**
    - > Dexion
    - > Unistrut, Canstrut
    - > Cut and weld angle channel



## “Service Requests” for Mechanical Services

Use the RT (Request Tracker) system:

Visit <http://chemeng.uwaterloo.ca>

then Resources | Services, then RT (Request Tracker) Service Request (Web Form), select Mechanical Services.

- Fill out Form completely
- Account number (for Research work)
- Completed and Approved Safety Report
- Please have a clear notion of starting materials and conditions, and the expected product and product conditions.



**Ralph Dickhout**

**E6 3102**

**Ext. 33311**

***Analytical Chemist, Manager of Analytical Services & Health and Safety***

**Services Provided:**

- Shared Departmental Laboratory maintenance and user orientation
- Chemical analysis and materials testing
- Analytical chemistry troubleshooting
- Method/protocol development
- Instrument installation, testing and maintenance
- Analytical quality control and data interpretation
- Chemical and general laboratory safety
- Analytical software installation and testing
- Equipment purchasing assistance
- General chemistry consultation



## Health & Safety Resources:

- Required to complete all safety training/documentation requirements prior to the start of work
- Online training – min. 4 online safety modules for lab res
- Safety reports outlining research and hazards.



## Safety Reports:

- **\*\*DEPARTMENTAL REQUIREMENT\*\***
- Must be written specifically to the project and completed before working in the lab; include one completed **lab risk assessment form** for each process/procedure; nano research must include the **nano risk worksheet**
- Must describe research plan and demonstrate awareness of specific dangers and a plan of action to address problems if they arise
- If any terms should change over the course of work, the safety report needs to be revised and approved: i.e., more risk assessment forms.



## Safety Inspections:

- Completed every term by lab safety groups
- Results reviewed by department safety committee
- An operation seen as unsafe can be shut down until the problem is resolved



## Analytical Lab Services (Department Instruments):

- 2 ways to utilize the lab: submit samples to be analyzed or receive training on the equipment to perform analysis oneself
- Chain of custody form (online) must be filled out when samples are submitted



**Ron Neill**

**E6 1123**

**Ext. 33221**

## ***Scientific Glass Blowing Technician***

- Repair and custom assembly services for general quartz and borosilicate (pyrex) glass

### **Services Provided:**

- Excellent turn-around times
  - Emergency jobs can often be done in one full day
  - On more complex projects we can come to your facility to discuss design and provide an estimate
  - Highly competitive rates
  - Please call for an appointment
- 
- **Also, LN2 Dispensing – Tue and Thur at 11:00am  
Ground Floor – Room 1026**



**Rick Hecktus**

**DWE 1519**

**Ext. 32291**

***Mechanical Technician for DWE and Dept Shipper / Receiver***

**Requisitioning:**

- To purchase items from outside suppliers you will have to get either a **Purchase Requisition** or a **Systems Contract** (depends on supplier) from the main office or your supervisor
- When filling out a Purchase Requisition or a Systems Contract please include your name and your phone extension and your lab room number in the "deliver to" fields
- Central Stores Compressed Gas Bottle – Order Form  
<https://uwaterloo.ca/central-stores/gas-cylinder-management/gas-cylinder-order-pick-form>

**Receiving and Deliveries:**

- All items ordered with a PO or Systems Contract will be shipped to **Central Stores** and delivered to ChE. Receiving
- Compressed gas cylinders are delivered directly to the Labs in E6 and DWE
- Packages brought to ChE Receiving will be delivered to their respective people
- Deliveries are done daily in the afternoons



# UW – CHE TECHNICAL SUPPORT TEAM

## Hazardous Waste:

- ChE. Receiving & Shipping provides the researcher a place to bring waste chemicals
- Please have your containers labelled, in full, prior to arrival
- Containers should be clean and free of contaminants on the outside surface and transported without the use of gloves
- You will be asked to classify the waste as either acid, base, flammable, oxidizer or toxic
- For the bio-waste containers, the yellow bag inside must be tied closed

**The scheduled times are every Tuesday:**

**1:00 pm to 1:20pm in DWE 1510**

**2:00pm to 2:20pm in E6 1022**

## Other Services:

- Primary mechanical support technician for DWE labs and offices
- Request services via RT (Request Track) system.



# Thank you.....



# QUESTIONS???