UW CHEMICAL ENGINEERING
TECHNICAL SUPPORT TEAM
GRAD ORIENTATION
JANUARY - 2018

WATERLOO ENGINEERING
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).
   

2. Complete Safety Training (5 year validity)
3. Plan Your Research and Create Lab Hazard Analysis.
5. Always Work Safe, and Coach Others to Do The Same!!
UW - CHE TECHNICAL SUPPORT TEAM – PILLARS

E6 – DWE – QNC
Faculty Teaching / Lab Research

“PILLARS of SUPPORT”
- Ralph
- Dennis
- John
- Ralph
- Ron
- Rick
- Co-op
- Ravindra
- Bert
- Rick
- Jen M.
- Cheryl
- Jen C.
- Neil
- Rick
- Faculty
- Rick
- Ahmad

“Safety First”
IS / IT - Computers, Electronics
Mechanical Works
Undergraduate Labs
Analytical Lab Svcs
Glass Blowing, LN2
Shipping and Receiving
Chemical Waste Disposal
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
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
3. Only require Form Submission if request will take longer than 15 minutes to resolve
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](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
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

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.
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.
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 researchers
- 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
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.

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.
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???