

Job Description

Job Title:	Information Technology Specialist
Department:	Mechanical & Mechatronics Engineering
Reports To:	IT Manager
Jobs Reporting:	None
Salary Grade:	USG 8-11
Effective Date:	September 2017

Primary Purpose

The Information Technology Specialist (IT Specialist) is responsible for the provision and support of all information technology, video conferencing systems and related computing systems in the Mechanical and Mechatronics Engineering Department. These responsibilities include management of computing environments and supporting infrastructure, as well as enabling and improving outcomes for administrative, teaching, and research computing in the department.

Key Accountabilities

List the major responsibilities of the job, divided into 3 to 5 broad categories. These should reflect 80 - 90% of "what" the job does not the "how". Insert a category heading and in bullet form below, state specific responsibilities.

Client Service

- Provide excellent client service to the Mechanical and Mechatronics Engineering Department and associated faculty, staff, individuals and groups in their use of computing and related technology.
- Work with clients to understand and resolve their computing and related technology issues.
- Provide guidance and technical advice to clients.
- Document client requests.
- Provide timely responses to initial requests for information or assistance through the Request Tracking ticketing system, prioritizing response among multiple requests.
- Resolve problems in a timely fashion where the incumbent has the required skills and resources. Forward problems to those who are best suited to solve them based on expertise and resource availability.
- Keep clients informed of the progress toward resolution of their issues.
- Develop the skills (appropriate to the incumbent's USG level) to resolve client issues directly.
- Communicate with clients and peers effectively, clearly, and with empathy.
- Provide documentation for both technical and non-technical audiences.
- Stays up to date on developments in the information technology marketplace to assess and identify potential solutions to serve the department's needs

Systems Management

- Support, manage, and improve the department's computing infrastructure and related processes.
- Specify, purchase/acquire, and test computer hardware and software.
- Manage the hardware lifecycle, from provisioning and deployment through decommissioning.
- Specify, test and deploy Windows 10, Ubuntu, MAC IOS, Windows Server and Linux Server operating system on various hardware platforms
- Test and deploy application software such as antivirus, malware, MatLab, Ansys SolidWorks.
- Manage Active Directory for the department's organizational unit

Job Description



- Manage large and complex computing environments such as high performance server cluster farms and the department's GPU environment
- Manage and maintain critical network services like DNS, DHCP and department network switches.
- Document systems, processes, and procedures on the department's SharePoint system.
- Diagnose, resolve and monitor system and application problems such as loss of network connectivity, virus issues and security operating systems patches
- Support, manage, and maintain the department's video conferencing online teaching environment
- Work with clients to configure, test, and broadcast online courses; train clients to use system

Application Development

- Provides online software solutions through development or procurement to maximize the efficiency of administrative systems and integrate software solutions to satisfy diverse computing needs for day-to-day operations
- Provides support of a customized data management system for department using python, php, C++, java scripting, etc.
- Provides support for requirements definition, functional design, configuration, implementation, testing, training and documentation to deliver online data solutions;
- Assesses client needs, recommends solutions and creates customized system for tracking and utilizing department, business data;
- Ensures compatibility and interoperability of database (MySQL, MS SQL) with other University databases and computing systems;
- Consults with users on current or proposed procedures, problems, and requirements in order to define systems needs and streamline administrative work flow;
- Facilitates effective database solutions that meet regulatory requirements and departmental obligations;
- Ensures a high level of availability, security, data integrity for custom-built applications;
- Maintains software to create reliable technology solutions that increase staff productivity;
- Troubleshoots problems and errors in software and improve data processing efficiency, effectiveness and user satisfaction

Services Development

- Design and development of new technical services and procedures in support of the department's mission.
- Identify, propose, and acquire or develop applications and technological solutions to support the School's academic and research missions.
- Manage technical projects using best practices to achieve successful outcomes.
- Recommend enhancements and improvements to systems and processes; provide guidance on technological evolution

Required Qualifications

If hiring today, what would be the required education, experience, knowledge, skills and abilities?

Education

- A university degree in a computing discipline together with relevant experience, or an equivalent combination of education and experience

Experience

- A background in hardware break fix, operating system configuration, active directory, network administration
- Experience with various programming languages along with database development and administration preferred

Job Description



- Strong client service skills and demonstrated ability to work as part of a team.

Knowledge/Skills/Abilities

- Ability to learn quickly and adapt to change.
- Ability to apply abstract thinking to solve complex problems.
- Able to work with minimal supervision.
- Good organizational, time management, and communication skills.

Nature and Scope

- **Contacts:** Must be able to use verbal and written communication effectively with audiences of a wide range of levels of technical knowledge and understanding. Capable of dealing with people experiencing high levels of stress. Significant relationships include other members of MME; IT staff across the University in individual and group contexts; staff, faculty, students, and visitors associated with the department; technology specialists at other institutions and organizations; and technology vendors.
- **Level of Responsibility:** Level of responsibility increases with skill and experience. Responsible for front-line technical support. The position requires balancing competing demands of short and long term projects, periodic interruptions when engaged in focused work, and the awareness that any errors may damage large numbers of computing systems and/or affect the ability of clients and peers throughout the School and in some cases the entire University to accomplish their jobs.
- **Decision-Making Authority:** Make recommendations to management on the entire lifecycle (development, purchase, repair, and replacement and decommissioning) of hardware and software. May decide when and how to affect the working environments of clients.
- **Physical and Sensory Demands:** Depending on specific responsibilities and Department needs, there may be a need to lift and manipulate computing equipment, typically workstation class equipment up to 20 kg but occasionally servers and large printers. Occasional exposure to hardware located in machine rooms.
- **Working Environment:** Most work takes place in private offices in front of a computer workstation. Travel to staff and faculty offices and computing labs on campus regularly required. Hours of work are similar to standard office hours, with some flexibility in scheduling and the occasional requirement for work to be done outside of office hours due to special events, emergency situations, or to minimize disruption to clients. The position requires balancing competing demands of short and long term projects, periodic interruptions when engaged in focused work, and the awareness that any errors may damage large numbers of computing systems and/or affect the ability of clients and peers throughout the School and in some cases the entire University to accomplish their jobs.