Online Technologies Consultant

Department: Distance and Continuing Education  Effective Date: August, 2007
Grade: USG 8-10  Reports to: Associate Director, Systems
Position No: 00005426

General Accountability

Reporting to the Associate Director, Systems and working in conjunction with each unit in DCE as necessary, the consultant will be accountable for:

- general needs assessment, investigation, implementation, documentation and ongoing maintenance of educational technologies and business-process technologies. The ongoing pursuit of these general technology-related activities is essential for the growth and stability of Distance and Continuing Education courses and processes.
- research, advising, and participating in the implementation, testing, support of interactive web course elements such as Learning/Content management systems, online collaboration tools, customized self-testing and review elements when required.
- providing clear, complete and accessible documentation to facilitate the use and maintenance of and training in DCE technologies.

The DCE office helps to facilitate the evolution of teaching and learning as it applies primarily to distance education and is doing so through a range of consulting and advocacy with distance education instructors and through ongoing communications with Instructional Technology and Media Services in IST as well as the Centre for Teaching Excellence. DCE is also accepting directional guidance from both the Distance Education Advisory Committee and the Continuing Education Advisory Committee.

Nature and Scope

Technical Expertise:

- Software and systems design, including database design and administration, development and documentation
- New software assessment and implementation
- Software, data and application maintenance, including scheduling, updates and revisions
- Support of existing office technologies such as the assignment upload system, student assignment fax system, DE and CE websites, CRM and registration systems

Problem Solving:

- Work in conjunction with all DCE units and ITMS staff to troubleshoot technical issues related to online course delivery.
- Consult with SISP support staff and interact with Student Information Systems as needed
- Consult with faculty and DCE staff in the use of technologies to overcome instructional bottlenecks where and when required
- Provide 3rd tier support in diagnosing and resolving problems related to the use of these technologies
- Provide support for non-instructional technologies within the office
- Work in conjunction with the DCE IST liaison to coordinate, track and resolve problem reports initiated by DCE staff

Training and Communication:

- Assess the training requirements of faculty and DCE staff in the use of technologies used in DCE courses and related Learning/Content Management Systems (LCMS), as well as general office technologies
- Develop documentation and collaborate on in-house training programs to meet the assessed needs
- Provide effective communications to the DCE office in regard to technological best practices, IST communications and events, software/vendor notices
- Attend and participate in IST and CTE activities and liaise with each unit

Organizational Skills

- Adhere to industry best practices for documentation management
- Perform ongoing analysis of existing technology processes for potential efficiencies
- Practice good time management when dealing with multiple projects and activities

<table>
<thead>
<tr>
<th>Statistical Data</th>
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<tbody>
<tr>
<td>Number of annual registrations in DE courses</td>
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<tr>
<td>Number of CE contacts/registrants</td>
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<tr>
<td>Number of students taking DE courses</td>
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<tr>
<td>Number of DCE courses</td>
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<tr>
<td>Number of office computers supported</td>
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<td>Number of office staff supported</td>
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<tr>
<td>Number of DCE web/data servers</td>
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Specific Accountabilities

Working with other members of the DCE team, the consultant will:

- develop, maintain, assess, document educational and business-process software as required
• provide technical assistance, documentation, and support for DCE staff, instructors, and their teaching teams to facilitate the use of educational web technologies such as: LCMS tools and conventions, collaboration tools, various hardware formats, multimedia, etc…
• implement, support and assist in training DCE staff in using workflow support technologies for the office as required
• provide technical advice for course design and course technologies where appropriate
• contribute to the planning for and provision of support in web-based DE and CE courses
• from a technology perspective, investigate, assess, document and communicate findings with respect to new or potential teaching and learning technologies as related to the delivery and maintenance of web-based courses.
• work with DCE staff and instructors on matters related to the technical administration of web-based courses when needed
• keep up to date with office hardware and software needs and inventory
• undertaking other duties, as assigned by the Associate Director

Working Conditions

Much of the time is spent sitting in a comfortable position with frequent opportunity to move about. Located in a comfortable indoor area. There is a frequent need to give close attention to various stimuli such as written material and information given verbally to co-workers. The work is varied. There are deadline pressures, while at the same time there is a demand for thoroughness and accuracy. As we work in a production environment that thousands of users depend on hourly, occasional “crisis” events which require immediate attention and action are not unheard of.

Qualifications, Knowledge and Abilities

The consultant must have a bachelor degree in a quantitative discipline. Knowledge of software design principles and systems design, especially for web applications such as .NET, JavaScript, PHP, Flash, etc… is required. The consultant must have and maintain a solid working knowledge of networking and Internet technologies including: web application and database servers, email, and application security. Knowledge of databases and how they interact with web application technologies to provide dynamic web content is essential.

The consultant should have and maintain experience with the instructional uses of computers and in general, instructional technologies. The consultant should be conversant with new and emerging educational technologies including learning/content management systems, online collaboration software, various hardware formats and multimedia technologies in general.

Excellent communication skills are required to provide technical support to faculty and teaching assistants, students, courseware development team, and DCE staff in general. This includes the ability to explain technical concepts to less experienced computer users.

The consultant must be able to work effectively with others in a team environment.

Core Competencies

The consultant is responsible for developing and maintaining:
1. Technical expertise
   - An understanding and familiarity with existing, new and emerging learning technologies and their possible application within DCE
   - Working knowledge of the software development lifecycle
   - General knowledge of computer hardware including both desktop and network servers.
   - Knowledge of standard electronic desktop applications suites (MS Office, FileMaker, Maximizer, SharePoint)
   - Office automation, including the integration and scripting of office application suites and data management tools
   - Web development including: web page creation, web development scripting, (.NET, VB, ASP, PHP, ColdFusion), multimedia development, web interfaces to databases, CSS, Flash, etc…

2. Problem Solving
   - Ability to apply knowledge of the broad range of the above technologies to achieving effective solutions
   - Ability to detect patterns of procedural inefficiency (e.g. redundant applications, duplicate data stores, manual applications that could be automated, etc…)

3. Training and Communication
   - Ability to assess when staff could benefit from technical training and co-ordinate appropriate training options to meet these requirements
   - Ability to clearly document technical procedures that can be used by non-technical or new DCE staff

4. Organizational Skills
   - Ability to participate in and take a leadership role in projects that enhance or transform information technologies
   - Ability to effectively organize support for client or application areas

5. Demonstrated ability to work effectively with others in a team environment.

Career Paths

In some cases, with the approval of the associate director, the consultant may be required to focus their technical skill development in either specialized application development or specialized application support for either Distance Education or Continuing Education such as learning systems and tools, office automation and web development. In these circumstances, skills in the focus area that exceed the requirements at a particular level may be used to compensate for skills that do not meet the requirements in the other areas.

The following descriptions make reference to levels of expertise: foundation, proficient, and expert defined as follows:

*Foundation*: familiarity with theories and concepts; basic working knowledge of primary procedures, tasks, methodologies; academic and/or some work-related experience.
**Proficient**: good understanding of theories and concepts; practical working knowledge of most procedures, tasks and methods; sufficient to provide technical advice to less-experienced staff.

**Expert**: advanced and comprehensive knowledge of theories and concepts; recognized expert in procedures, tasks, and methods; proven ability to creatively apply existing and leading-edge knowledge to new environments; demonstrated ability to deliver information on advanced topics; proven ability to creatively apply existing and leading-edge knowledge to new environments.

The career paths for consultants are cumulative, with each level building on the previous requirement. Consultants are expected to develop their skills to at least the *proficient* level. Advancement to the *expert* level will be in recognition of ability and skills that demonstrate for both depth and breadth in a range of technologies, increasing levels of experience and responsibility.

**USG 8**
Entry level position; staff participate in the full range of consulting activities while developing expertise in the core areas.

**Accountability and Impact**
1. At the *foundation level*, contributes to provision of service and have general responsibility for their own work;
2. Work independently on assigned responsibilities

**Technical Expertise**
Staff would be expected to develop and demonstrate *foundation* level knowledge and skills in the following:
- general familiarity with existing office software and data and their capabilities and limitations;
- general familiarity with DCE courses, and development and delivery process
- understanding of networking concepts and the operation of the campus network;
- knowledge of the standard electronic desktop applications

**Problem Solving**
- developing a base of known problem solving techniques and solutions
- ability to diagnose and address routine technology problems

**Training and Communication**
- ability to communicate with clarity and effectiveness when consulting, in writing and technical documentation

**USG 9**
An experienced, competent, professional; staff participates in development and support of a wider set of technologies.

**Accountability and Impact**
1. At the *proficient* level, requires only general direction
2. Provides leadership for technical support,
3. Anticipates potential issues with course/technology implementations
Technical Expertise
- *foundation* level software development skills to advise about appropriate tools, to assist and advise in debugging, and to develop simple programs and scripts;
- *proficiency* in the standard electronic desktop and server applications, maintains an awareness of trends in desktop and server tools and techniques;
- *proficiency* in a specialized application support area.

Problem Solving
- *proficiency* in problem solving with the ability to apply a broader range of knowledge to the solution of more complex, non-routine problems.

Training and Communication
- *proficiency* in communications in order to provide effective consulting assistance for a broad range of problems;
- *proficiency* in documentation for training purposes, with the ability to develop and maintain a variety of documents and procedure descriptions.
- *involved in developing and delivering training sessions*

Organizational Skills
- *proficiency* in organizational skills would be required in order to participate in, and assume more responsibility for the organization and planning of new services or initiatives.

USG 10
This senior level position has a demonstrated track record of successes and *in-depth* knowledge of a range of supported technologies. This level would only be achieved after a significant number of years of experience and with demonstrated competence in a leadership role.

Accountability and Impact
1. At the *expert* level, staff assumes responsibility for one or more technical areas and may provide direction to other staff
2. Serves on dept-wide committees
3. Work has a significant impact on DE and CE

Technical Expertise
- *proficiency* in software or database development, for example, the development of software using .NET or other scripting language, or the development of scripts or databases in the language of a supported software technology;
- *in-depth* knowledge and experience with relevant educational computing environments with the ability to track and make recommendations for improvements to supported environment;
- *in-depth* knowledge of existing business process, and awareness of the specific impacts a change in process or design will have
- *in-depth* knowledge of a specialized application area with the ability to track and take responsibility for implementing improvements in application area.

Requirements Analysis and Consultation
- maintains an *in-depth* awareness of how information technologies are used in the office;
- assesses requirements of users
- applies knowledge of trends in technology to make recommendations for the ongoing evolution of the electronic workplace.
Problem Solving
- *in-depth* problem solving skills would be required to tackle complex, non-routine problems in a wide range of supported technologies;

Training and Communication
- *in-depth* communications skills with the ability to effectively communicate with individuals and groups; is persuasive, uses compelling arguments.
- excellent writing skills, required for the development of reports and documentation with an office-wide audience.
- lead and coordinate the development and delivery of training sessions

Organizational Skills
- takes a leadership role in information technology planning and project management
- participates in projects that may significantly change the computing environment of the office;
- provides a linkage between the office and IST; identifying requirements, communicating changes