

# University of Limerick's MA in Technical Communication and E-Learning

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**Abstract.** This article describes the mission, history, development, structure, and curriculum of the MA in Technical Communication and E-Learning, which is offered by the University of Limerick. The program started as a Graduate Diploma/ MA in Technical Communication but merged with the MA in E-Learning Design and Development in 2010. While the curriculum has evolved over the years, the overriding skill set of graduates remains constant; graduates are able to write clear, concise content for a range of media. In addition to discussing the curricular changes and structure, this article describes the typical roles filled by graduates, the faculty involved in the program, and the challenges they face administering the program.

**Keywords.** Technical communication, e-learning, curriculum development, industry links, assessments, online collaboration, teaching challenges

**T**he University of Limerick (UL), situated in the mid-west of Ireland, was founded as a National Institute of Higher Education in 1972 but received university status in 1989. At present, approximately 12,500 students are enrolled at undergraduate and postgraduate levels, with the majority of programs offered full-time on-campus. However, in recent years, the University has started offering more programs on a flexible basis, with part-time and distance programs becoming more popular. Technical Communication and Instructional Design (TCID), housed within the School of Culture and Communication, offers two such programs: a Master of Arts in Technical Communication and E-Learning (full- and part-time on-campus) and a Graduate Certificate in Technical Writing (distance learning). The Technical Communication Section also offers courses<sup>1</sup> on undergraduate programs, such as the Bachelor of Arts in New Media and English and

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<sup>1</sup> Known as modules at the University of Limerick.

the Bachelor of Arts (Joint Honors). This article, however, focuses primarily on the Master of Arts (MA) in Technical Communication and E-Learning program.

While courses on technical communication and writing are offered in a handful of other Irish university programs, UL is the only Irish university offering a full MA program in technical communication. UL is also unique in that the MA program focuses also on the related field of e-learning. Although standalone programs on e-learning, technology-enhanced learning, and digital media are offered in other Irish universities, no other Irish program has a dual emphasis on technical communication and e-learning. This dual emphasis means that graduates can apply for a range of positions—including technical writing, instructional design, and interactive courseware development—upon completion of the program. Because the program is unique, many Irish and multinational employers see UL as a “one-stop-shop” when looking to hire graduates from these fields. In fact, many multinational companies (including IBM and SAP) have content development and localization teams based in Ireland because Ireland (and UL more specifically) can provide graduates skilled in these areas.

## **Program Mission**

The MA in Technical Communication and E-Learning emphasizes strengths developed over more than a decade at UL. Contact with alumni has shown overwhelming support for the program's dual emphasis on technical communication and e-learning. The need for this type of expertise is expanding rapidly as more and more companies and institutions use information and communication technologies (ICTs) and need employees who can write clearly and/or teach effectively using these technologies. The part-time version of this program facilitates those who may not be able to undertake the full-time version due to work and/or family commitments. We aim to make its delivery as flexible as possible to facilitate students who are working or do not live close to the campus. For example, most tutorial work is managed online through synchronous chats and asynchronous conferences. In addition, we provide learning objects and lab sheets to support student technology use, and we offer podcasts of many of our lectures. The next phase of development for this program will be to offer a fully online MA, which will eventually replace the on-campus program; this is a necessary move as students will soon be faced with higher tuition fees and may need to remain in full-time employment while undertaking the program.

## **Mission Statement**

The mission of the MA in Technical Communication and E-Learning is to equip graduates with the skills needed to design and develop usable content and technology-enhanced learning resources.

The 2013 National Skills Bulletin (Forfás, 2013) notes a persistent skills shortage in many IT sectors in Ireland and describes the increasing importance of communication in conjunction with ICT skills and the need for innovative learning, including e-learning. Our MA aims to address these shortages by providing graduates with advanced online development and collaboration expertise. Graduates are unique in Ireland, qualified to work as both instructional designers and technical writers, and in a variety of related roles such as editing, web design and technology journalism (see also "Students and Graduates" later in this article for an overview of typical roles held by UL graduates). Based on our mission to equip graduates with these skills, upon successful completion of the program graduates should be able to:

- Communicate effectively in online and face-to-face environments.
- Write clear, correct, precise content.
- Conduct workplace and academic research.
- Manage complex writing and design projects.
- Deploy and use Web 2.0 technologies to collaborate with peers and to create engaging collaborative environments.
- Use multimedia applications to design and develop content.
- Evaluate software applications, tools and programs.
- Design and deliver instructional materials.

## **Programmatic Vision**

This program combines a mix of theory and practice. Our pedagogical approaches reflect the importance we place upon practice informed by theory. Although we teach software tools on the MA, and software skills are important to students seeking employment because employers tend to value them highly, we agree with Carliner (2010, p. 47) that "the purpose of an academic degree is to serve the student for decades after graduation by providing durable skills and knowledge. Technology skills and knowledge are perishable, often outdated within five years." Even where courses and assignments are explicitly practical, such as a website design assignment, we require students to reflect on their design decisions and to explain how they have put theory into practice. In fields such as technical communication and e-learning, which are strongly affected by changing

technologies, these "durable" skills enable graduates to adapt to new work environments and technologies. In fact, some employers hire UL's graduates because they possess the ability to use a range of tools, rather than because they know specific tools.

A second important theoretical perspective of the program is its emphasis on usability, and user- and learner-centered design. Technical communication and e-learning are humanistic disciplines with service to users of technology at their core. Regardless of the environments graduates find themselves working in, they will have to consider the audience for their work. We aim to approach all courses on the program from an audience-centric perspective. Students also learn that their audience may not speak English as their first language, and they must work to accommodate culture difference and design for international audiences.

## **Program History**

In 1994, the University of Limerick offered its first technical communication courses in an undergraduate program, the BA in Languages with Computing. The instructor hired to deliver these courses, Anne Keane, began developing a Graduate Diploma/MA in Technical Communication in collaboration with industry and academic partners, including John Kirkman, who also served as the first External Examiner. The Graduate Diploma/MA program was first offered in the Fall semester of 1995, and attracted 15 students in that first year, and subsequently cohorts of up to 30 students per year for the following 15 years.

In the Graduate Diploma/MA program structure, students undertook eight courses taught traditionally in the classroom during the first year, after which they could graduate with a Graduate Diploma award. Of those eight courses, four were core technical communication, covering content such as writing style, information design, theory, interviewing, desktop publishing, documentation management, and economics of text production. Students also took core courses in information systems development and human computer interaction. In addition, students chose one elective each semester, selecting from options such as computer programming, marketing, or software localization (a buoyant sector within the Irish software industry at the time).

If students achieved a 2.1 award<sup>2</sup> or higher, they were offered the option to write a dissertation to be examined for the award of MA. In prac-

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<sup>2</sup> The equivalent of a GPA of between 3.3 and 3.7, according to the British Department for Education Overseas Grade Comparison: < <https://www.gov.uk/government/publications/grade-comparison-of-overseas-qualifications> >.

tice, most students graduated with the Graduate Diploma award and we straight into industry, with most of them gaining employment in the Irish software industry.

The field of technical communication was expanding as Ireland's economy went through a boom period, which later became known as the "Celtic Tiger." The boom was partly fuelled by the strong software sector. Many practicing technical writers lacked technical communication qualifications, leading to a need for an online course to enable them to certify and upgrade their skills while continuing to work. In 2001, a pilot version of the Graduate Certificate in Technical Writing by distance learning ran for the first time, with just 4 students. The pilot was a success and, 13 years later, this program continues to be offered, and attracts approximately 20 students per year. The program structure, which remains the same today, offers the four core technical communication courses from the Graduate Diploma/MA. Students can undertake the Graduate Certificate over one or two years.

In 2002, an additional MA program was offered, the MA in E-learning Design and Development, designed to prepare graduates to work in the e-learning industry. This program also proved popular, and ran until 2010, when it and the Graduate Diploma/MA in Technical Communication were collapsed into a single MA in Technical Communication and E-Learning, our current on-campus MA, and the focus of this article (the structure of this program is outlined in "Curriculum" later in this article). This MA and its sister program, the Graduate Certificate in Technical Writing by distance learning, are the only technical communication programs available to university students in the Republic of Ireland.

## **Description**

As outlined in the previous section, the MA in Technical Communication and E-Learning program has been running since 2010, although a good deal of the curriculum builds on content taught in other programs since the mid-1990s. The program is offered and coordinated by Technical Communication and Instructional Design (TCID), which is housed within the School of Culture and Communication, within the Faculty of Arts, Humanities and Social Sciences, one of four Faculties at the university.

There are currently 19 students enrolled on the program, with 12 taking the program full-time over one year. The remaining students are taking the program part-time over two years. The program also qualifies under the Higher Education Authority's (HEA) Graduate Skills Conversion Program, which means that full-time students qualify for significantly

reduced fees. In 2014-15, full-time students will pay Euro 3,000 (approx. USD \$4,100) rather than Euro 4,888 (approx. USD \$6,720). The part-time program is not subsidized by the government so students pay Euro 2,800 for each of the two years.

## **Impetus**

Software development was one of the primary drivers of the Irish economic success story, which became known as the "Celtic Tiger" economy. Multi-national companies such as Microsoft and Symantec began to off-shore several development functions, including technical communication and localization, to Ireland in the mid-1990s, because Ireland was a relatively low-cost economy. Other reasons that Ireland became an IT hub were its strong links to Europe as a member of the EU, and its native English-speaking and educated workforce.

John Kirkman (1996) described the development of the original Graduate Diploma/MA in Technical Communication in an article for the *Journal of Technical Writing and Communication*, in which he emphasized the importance of the program's links with industry.

The technical communication offerings at Limerick have changed in the intervening 19 years since Kirkman was involved in establishing the original MA. For example, undergraduate students in New Media degrees study technical communication courses, a distance learning Graduate Certificate in Technical Writing has run since 2001, and most recently the MA in Technical Communication and E-Learning has replaced the original Graduate Diploma/ MA in Technical Communication. The links with industry, however, remain strong, with companies such as IBM and SAP hiring many of UL's graduates on an almost annual basis.

## **Changes Over Time**

The program is administered through a course board whose members meet each semester, to discuss curriculum development and any student issues that may have been raised during the semester. The course board constitutes all current TCID faculty. While industry practitioners do not sit on the Course Board, the curriculum is heavily influenced by industry practices. Industry professionals are regularly invited on-campus to speak to faculty and students and this situation provides us with an informal way of soliciting industry feedback. Many of these industry professionals are also former graduates of our programs, so graduates can have some input into the curriculum. Also, TCID faculty regularly receive job specifications from prospective employers by email, so these documents are monitored closely to ensure students are graduating with the necessary skill-set.

Course or program modifications are first discussed at course boards and then the Program Director presents the modification at school level. Once the modification is approved at school level, she presents it to faculty board and finally to the Accreditation Program Review Committee (APRC). In addition, the Program Director reviews applications from prospective students each spring.

In 2010, the course board merged the Graduate Diploma/ MA in Technical Communication with the MA in E-Learning Design and Development. Many graduates from both programs were seeking jobs in similar areas; therefore streamlining the offerings into a single program gave graduates a more expansive skillset, and enabled them to pitch their skills in both markets. Consolidating the programs also made the single offering more attractive and competitive.

When we developed the new MA, we also merged two practical workshop courses into one, to facilitate a new course called Learning and Collaboration Technologies. We had been teaching RoboHelp and Authorware in one workshop course but found that these tools were rarely required by industry, so we replaced that course with a new, more current one, which focused on Web 2.0 technologies and the like. In "Curriculum" later in this article, we will provide an overview of that course (as well as the other courses on the program).

We also introduced a new course called Research Methodologies in Languages and Cultural Studies because we found that students had little or no background in research methods, research ethics, or relevant research tools. In some cases, this lack of knowledge was impacting the quality of their final projects and dissertations, so we decided to address it formally in the curriculum.

The program continues to evolve, and each year we update course content to remain abreast of technological, industry and pedagogical changes. While the majority of curricula changes have been reactions to industry requirements (e.g., dropping RoboHelp or offering workshops on DITA), we have been proactive in terms of incorporating innovative technologies and techniques into the curriculum, particularly when compared with other Irish educational institutions (for example, we have been using asynchronous discussion forums with on-campus students for several years, to facilitate constructive discussions and deeper learning). We were also proactive when we introduced wiki writing, blogging, and podcasting into the curriculum. While employers were not specifically requesting these skills, we knew that it would only be a matter of time before graduates would need to be proficient in using Web 2.0 technologies. Recent

initiatives at the University of Limerick have focused on the development of six graduate attributes—knowledgeable, proactive, creative, responsible, collaborative, and articulate—but our curriculum has always focused on the development of transferable skills that can be used in a variety of workplace settings.

## **Students and Graduates**

The MA in Technical Communication and E-learning is a conversion program, which means that students can have any disciplinary background—this program “converts” their existing skills to enable them to work in technical writing, instructional design, and related roles. Students, therefore, typically come from a range of backgrounds, most notably the arts and business, but also from education, science, and engineering. Students from this year’s cohort have backgrounds in humanities, IT and multimedia, and education, for example.

In terms of entry requirements:

- Applicants must have a primary degree in any discipline (2.2 honors<sup>3</sup> award or higher, at level 8<sup>4</sup>). Applicants who do not have a primary degree can apply to be considered through a Recognition of Prior Learning (RPL<sup>5</sup>) process.
- Applicants must have a high standard of written English and they are asked to submit a personal statement outlining their reasons for applying, as part of the application process.
- Applicants are expected to be proficient in using standard office applications (e.g., Microsoft WORD, POWERPOINT, and EXCEL). They must also be proficient in searching the Internet and familiar with using electronic communication tools (including email, chat rooms, and discussion forums).
- Applicants may be required to attend/ participate in interviews to determine their suitability for the program.

Since its inception, several hundred graduates of the University of Limerick have completed undergraduate courses, or full programs at Graduate Certificate, Diploma and MA levels in technical communication. Many of these graduates now have ten to fifteen years of industry experience. The

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<sup>3</sup> The equivalent of a GPA of between 3.0 and 3.3, according to the British Department for Education Overseas Grade Comparison: <<https://www.gov.uk/government/publications/grade-comparison-of-overseas-qualifications>>.

<sup>4</sup> Honors bachelor degree level, as per the Irish Framework of Qualifications: <[http://www.nfq.ie/nfq/en/FanDiagram/nqai\\_nfq\\_08.html](http://www.nfq.ie/nfq/en/FanDiagram/nqai_nfq_08.html)>.

<sup>5</sup> For an explanation of RPL, see: <<http://www.fetac.ie/fetac/aboutfetac/policies/rpl.htm>>.



great majority of these graduates find work in Ireland. Although we do not have precise figures, our contact with alumni suggests that the following workplace scenarios are most typical:

- Information developers in large technical writing teams for multinational companies like IBM and SAP.
- Technical writers in software and IT companies (working as lone technical writers or in small teams).
- Instructional designers in e-learning companies in Ireland.
- Instructional technologists in Irish second- and third-level educational institutions.
- Hybrid roles that encompass instructional design, technical communication and information design, in multinational companies.

In addition to these typical scenarios, additional job titles of UL's graduates reflect a range of complementary roles, and the increasing digitization of the industry. These titles include "content specialist," "digital editor," "web content strategist," "online marketing specialist," and "digital project specialist."

Some comments from recent graduates indicate how beneficial they have found their studies in technical communication:

"I really enjoyed the challenge of the MA program. It was well thought out and structured. Further, the modules covered are very relevant to current industry needs and have been instrumental in helping me and classmates secure employment."

"I really enjoyed my year studying at UL. The modules were relevant, challenging and absorbing, and the lecturers were supportive and helpful. The MA in Technical Communication and E-Learning helped me get back on the career ladder after being home with my kids for a few years.

"I got a job as an Information Developer as soon as I completed the course."

"This MA improved my writing, design and development skills immeasurably. The 1-year, full-time course was challenging; however, the content of both the technical communication and e-learning related modules was extremely relevant and provided invaluable preparation for me for a variety of career options. I would recommend the course highly."

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"The course introduced me to the latest industry software, taught me practical writing skills and alerted me to the career options in the technical communication profession. The decision to undertake the MA has been invaluable; this qualification enabled me to execute a career change in my thirties in the midst of a recession! I would highly recommend it to anyone interested in technology and writing."

## **Faculty**

With the exception of one course (RM6011 – see "Curriculum" later in this article), all faculty teaching on the program work in TCID. The following full-time faculty teach in the program:

- Yvonne Cleary, Lecturer in Technical Communication, and MA Program Director.
- Darina Slattery, Lecturer in Technical Communication (former MA Program Director).
- Ann Marcus-Quinn, Lecturer in Technical Communication, and Graduate Certificate in Technical Writing Program Director.

The backgrounds of faculty are varied but include applied languages, business, computer science, and the arts. Where feasible, faculty teach subjects that relate to their teaching and research interests, which include:

- E-Learning design and development
- Financial content analysis
- Instructional design
- Intercultural communication
- Online collaboration and virtual teams
- Open educational resources
- Professionalization of technical writers
- Software/ web localization and internationalization
- Technical communication
- Usability

The three full-time faculty coordinate and teach eight of the nine courses on the MA program, as well as courses on our Graduate Certificate in Technical Writing program and some undergraduate programs (e.g., the BA in New Media and English). On average, we each teach two courses

per semester, but we have been required to teach up to four courses per semester, depending on faculty numbers available. Some of these courses are taught face-to-face and online simultaneously (e.g., TW5221 Theory of Technical Communication—see “Curriculum” later in this article). Teaching typically requires faculty giving one or two double lectures and one tutorial per week, per course, over a 12-week semester. For some of the courses, a Teaching Assistant (TA) facilitates weekly lab sessions; in these lab sessions, students learn how to use software applications by following pre-written instructional materials. The Teaching Assistant position is filled annually (10-month contracts), but these contracts cannot be renewed more than three times. This policy has been a major challenge for TCID, because a new TA has to be hired every three years; this level of staff turnover disrupts continuity and creates additional work because new TAs need to be not only mentored but also have time to become accustomed to courses and university procedures. Over the last 15 years, our TAs have included Emma O'Brien, Michael O'Brien, Majella O'Dea, Marie Flannery, Yvonne Diggins, and Ann Marcus-Quinn (Ann is now full-time TCID faculty).

In recent years, we have been fortunate enough to hire an Adjunct Professor, who facilitates the development of TCID both pedagogically and professionally. Our current Adjunct is Professor Philip Rubens, formerly of Rensselaer Polytechnic Institute (RPI) and also a former External Examiner for TCID. In his capacity as Adjunct, Professor Rubens typically facilitates online discussions in one course per semester, thereby offering off-campus expertise to students and easing the workload for full-time faculty. He also visits the campus once a year and gives face-to-face presentations to students and faculty, and he facilitates the professional development of faculty on an ongoing basis.

If a full-time faculty member has to go on leave, for whatever reason, a part-time Tutor is sometimes hired to cover the core teaching hours for that faculty member, but only if financial resources are available.

## **Curriculum**

The MA program is offered as a one-year, full-time course taught over three semesters, or as a two-year, part-time course taught over five semesters. Part-time students attend classes during the day with the full-time students. Each semester comprises 12 teaching weeks. Students taking the dissertation/ project course are not required to be on-campus during the summer semester but their project work is supervised by full-time faculty, either online or in face-to-face meetings.

The structures of the full- and part-time programs are as follows:

**Full-time Program**

| Fall semester   | Spring semester  | Summer semester                       |
|---|--|---------------------------------------|
| TW5211 Principles of Professional and Technical Communication and Information Design (9 ECTS <sup>6</sup> ) | TW5212 Workplace Issues in Technical and Professional Communication (9 ECTS) | EL6013 Dissertation/Project (30 ECTS) |
| EL6041 Instructional Design (9 ECTS)  | EL6052 E-Learning Theories and Practices (9 ECTS)                            |                                       |
| TW5221 Theory of Technical Communication (9 ECTS)   | EL6072 Interactive Courseware Workshop (9 ECTS)                              |                                       |
| RM6011 Research Methodologies in Languages and Cultural Studies (3 ECTS)                                    | EL6082 Learning and Collaboration Technologies (3 ECTS)                      |                                       |

**Part-time Program**

Year one:

| Fall semester   | Spring semester  | Summer semester |
|---|--|-----------------|
| TW5211 Principles of Professional and Technical Communication and Information Design (9 ECTS) | TW5212 Workplace Issues in Technical and Professional Communication (9 ECTS) |                 |
| EL6041 Instructional Design (9 ECTS)  | EL6072 Interactive Courseware Workshop (9 ECTS)                              |                 |

Year two:

| Fall semester  | Spring semester   | Summer semester                       |
|--|---|---------------------------------------|
| TW5221 Theory of Technical Communication (9 ECTS)                        | EL6052 E-Learning Theories and Practices (9 ECTS)       | EL6013 Dissertation/Project (30 ECTS) |
| RM6011 Research Methodologies in Languages and Cultural Studies (3 ECTS) | EL6082 Learning and Collaboration Technologies (3 ECTS) |                                       |

**Coursework**

This section will outline the courses on the program. In all courses, students undertake 100% continuous assessment; i.e., there are no summative examinations. Lectures focus largely on theory, tutorials focus on small-group work (with an emphasis on assignment deliverables), and workshops focus on teaching industry-standard tools such as Adobe DREAMWEAVER, FLASH, FRAME-MAKER, and PHOTOSHOP in a computer lab environment.

<sup>6</sup> The European Credit Transfer System (ECTS).

## **TW5211 Principles of Professional and Technical Communication and Information Design**

### **Syllabus**

This course covers the following topics: Introduction to technical communication; audience analysis; writing style for technical communication; information design; typography; color; graphics and illustrations; technical communication genres; writing technical manuals; designing and writing brochures; writing for new media.

### **Assessment Mechanisms**

Assignments typically require students to rewrite a passage of text, summarize a document, critique and redesign a brochure, and design and develop an instruction manual. Marks are awarded for writing style and document design.

## **EL6041 Instructional Design**

### **Syllabus**

This course covers the following topics: Brief history of instructional design; main approaches to instructional design (behaviorism, cognitivism, and constructivism); individual learning theorists (including Skinner, Bloom, Gagné, Jonassen, Gardner, Kolb, and Merrill); needs assessment; front-end analysis (including learner/ audience analysis, technology analysis, task analysis, objective analysis, and media analysis); course design (including project scheduling, definition of team roles, media specifications, content structure, and configuration control); delivery systems for instruction (differences between individualized instruction, small-group instruction, and large-group instruction); and the systematic design of instruction (the Dick & Carey model).

### **Assessment Mechanisms**

Typically, students are required to write two essays and to participate in online discussions. Essay topics include comparing the three approaches to instructional design (behaviorism, cognitivism, and constructivism) and discussing how Gagné's nine events of instruction could apply to an online course. Marks are awarded for a thorough discussion of the essay topic, writing style and overall presentation of the document.

## **TW5221 Theory of Technical Communication**

### **Syllabus**

This course has two principal strands: Research methods in technical communication and theory topics in technical communication. Research topics include: phases of a research project; research strategies; data analysis; ethical considerations; usability studies and heuristic evaluation. Theory

topics include: history, definition, and rationale of technical communication; minimalism; information design theory; readability; international communication.

### **Assessment Mechanisms**

Students undertake a substantial research project in this course. Students are free to research any topic of relevance to technical communication or e-learning, provided they can demonstrate that they have devised a suitable hypothesis or research question(s). The majority of students undertake a usability study on some communication product (e.g., a brochure or website). For this assignment, marks are awarded for proposal development (this is facilitated online by our Adjunct Professor) and for the final research report.

## **RM6011 Research Methodologies in Languages and Cultural Studies**

### **Syllabus**

This course covers the nature of research and how to formulate a research question. Topics related to research methodologies include qualitative versus quantitative approaches, ensuring reliability and validity, survey research (sampling, questionnaire design etc.), text analysis and critical discourse analysis, content analysis, conversation and interaction analysis, interviews, classroom observation, action research, and case studies. Topics also include researching and evaluating information and communication technologies for pedagogical purposes, and ethical issues and good practices in research involving human subjects. Electronic tools include databases and search tools, as well as electronic reference managers. Academic writing topics include structure, work-plan, presentation, literature reviews, referencing, and planning and writing a research proposal. The overall structure of the course focuses on progressing from research question to thesis.

### **Assessment Mechanisms**

By the end of the semester, students write a proposal for their dissertation or the development project that they propose to develop during the summer semester.

## **TW5212 Workplace Issues in Professional and Technical Communication**

### **Syllabus**

This course covers the following topics: Ethical issues in professional communication; writing and information design ethics; codes of practice; cyber ethics; legal issues, including consumer protection, patent, copyright,

trademarks, trade secrets, and contracts. XML and structured authoring. Communication theory includes models; problems; work teams; virtual teams; non-verbal communication; interviewing skills; presentation and listening skills. Trends in writing and communication: technology trends; employment trends; language trends; design trends.

### **Assessment Mechanisms**

Students undertake two assignments in this course: an XML development project and an interview assignment with two deliverables—a report and a screencast.

## **EL6052 E-Learning Theories and Practices**

### **Syllabus**

This course covers the following topics: Trends and issues in distance education and e-learning; the depth education model; considerations and procedures for using/implementing virtual classrooms, web-based instructional systems, learning management systems, and learner support systems; e-moderating; interaction and assessment activities; evaluation of distance education and e-learning programs.

### **Assessment Mechanisms**

Students write two essays in this course. The topics typically include a discussion of the convergences and divergences in conventional and distance education and a discussion of the three key elements of a community of inquiry framework (based on the depth education model). Students are also required to participate in online discussions.

## **EL6072 Interactive Courseware Workshop**

### **Syllabus**

This course covers the following topics: Introduction to HTML; Adobe DREAMWEAVER CS5; Adobe FLASH CS5.

### **Assessment Mechanisms**

Students undertake a group website and an individual FLASH assignment. Typically, both assignments also require students to submit reports, describing how and where they applied the theories they studied in other courses.

## **EL6082 Learning and Collaboration Technologies**

### **Syllabus**

This course covers the following topics: Introduction to blogs and wikis; Adobe CAPTIVATE; Introduction to podcasting; Introduction to assistive technologies; Web-based tools for e-learning and collaboration.

## **Assessment Mechanisms**

Students set-up and maintain a reflective learning blog throughout the semester. They also develop a podcast on a topic of interest to them and present it to their classmates at the end of the semester. Some years, students also participate in virtual team projects with students in the U.S. as part of this course.

## **EL6013: MA Project/Dissertation**

Students submit a proposal in January, and in the summer semester, they either complete a development project and evaluation or a dissertation describing a research project in an area relevant to technical communication or e-learning. This part of the program is self-directed, but each student is assigned a supervisor who offers guidance throughout the process.

## **Experiences**

Overall, the curriculum is defined by a balance of theory and practice, the merging of cutting-edge and durable content, and an emphasis on real-world assignments and industry links. The MA program provides students with a range of valuable experiences, including opportunities for the following activities:

- Individual and group work, both in face-to-face settings and in virtual teams. The virtual team projects, in particular, are a defining feature of the program, as they give students opportunities to collaborate with teammates in another country to produce a common deliverable. The challenges, issues, and outcomes of the virtual team projects have been well-documented in various articles, including Flammia, et al. (2010).
- Service learning and civic engagement. In the past, students have undertaken assignments that required them to develop online resources for community groups and policy makers. These kinds of projects have enriched the student experience and broadened their skill-sets.
- Industry presentations and workshops, which provide students with opportunities to see how the theory is applied in a real-world setting. Each year, industry experts present to the students on a range of topics including the typical duties of a Technical Writer/Content Developer, the workflow process, and the tools used. Companies such as IBM and SAP present to the students almost every year.



- Learning and practicing a number of transferable skills, including oral presentations, document design, content development, blogging, podcasting, and multimedia development.
- Researching, designing, and developing a substantial project that is a) of interest to the individual student and b) of relevance to potential future employers.

Students preparing to apply for employment value the opportunities to engage in real-world assignments, develop their portfolios, and network with employers. Alumni consistently comment on how the program prepared them for the workplace.

## **Challenges and Lessons Learned**

As with all academic programs, the MA in Technical Communication and E-learning has faced some challenges. In this section, we discuss these challenges, as well as lessons learned regarding curriculum development and administration of the program.

### **Challenges**

The following are persistent challenges:

- Ensuring that students have the skill-set required by industry. Both technical communication and e-learning are constantly-evolving fields and the curriculum needs to be flexible. For example, faculty recently incorporated XML and DITA training into the curriculum, as some employers requested this skill-set. However, it is not always feasible to add new content without sacrificing existing content, so sometimes it is not possible to devote adequate time to topics.
- Updating software, which not only has severe financial implications, but also requires a steep learning curve for faculty.
- Getting the right balance right between individual and group work. While relevant pedagogical models such as the five-stage model of teaching and learning online (Salmon, 2004) advocate group work to facilitate knowledge construction, some students welcome individual assignments as there are fewer issues to contend with; issues relating to non-participating team members are common concerns. Moreover, because students graduate with an individual award, many of them prefer assignments for which they have sole control and responsibility.
- Providing detailed constructive feedback, ideally during the semester. For every assignment, students receive feedback not only

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on the task at hand (e.g., design and develop a website), but also on their writing style, document design, and technical skills. Despite best efforts, it is not always feasible to provide this level of feedback before another assignment is due, but faculty endeavor to do so whenever possible.

- Moving online. The latest challenge we have set for ourselves is to make the program more flexible by offering it entirely online. In an institution where most programs are run on-campus, we may encounter some bureaucratic and logistical issues as we undertake this endeavor.

## **Lessons Learned**

Over the years, faculty have made the following observations:

- Students benefit from continuous assessments, which facilitate learning outcomes better than summative examinations. Overall, grades tend to be higher when students are required to practice their skills on a regular basis, and they receive constructive feedback on that practice.
- Students need feedback on their writing and document design at an early stage, as these skills will be needed throughout the program in every assignment. Indeed, they are the key skills that students use after graduation.
- Students learn adaptability. Although it is not feasible to teach all the ICT tools that might be used in industry (some companies use proprietary tools), nonetheless, by the end of the program, students possess the ability and flexibility to learn any application they are likely to need in the workplace.
- Students value interactions with industry experts. From a faculty perspective, experts often confirm what is taught in-class, thereby reinforcing the curriculum.
- Students need instruction on basic document formatting, Web searching, and referencing, as these skills are rarely taught in undergraduate programs. In the early years, students had to learn these skills themselves but more recently, faculty have integrated instruction on these skills into existing courses.

## **Concluding Remarks**

While the program structure has changed significantly from the original Graduate Diploma/MA in Technical Communication, the overall skill-sets of graduates have remained consistent. Graduates of the MA in Techni-

cal Communication and E-Learning are good writers, capable of conveying complex content in a clear and concise way. They are also aware of the challenges of writing for international audiences and writing for new media.

As the program continues to evolve, we look forward to welcoming new students and to keeping pace with pedagogical and disciplinary developments into the future.

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## **Author information**

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