Assessing the Effectiveness and Appropriateness of the Technical Communication Certificates at IUPUI: Final Report

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Summary of overall project accomplishments as related to the intended outcomes

This project was designed to assess IUPUI's graduate and undergraduate technical communication certificates, (See Appendix A for links to the descriptions of the programs) specifically in the areas of whether the abilities students need for workplace settings are being taught and whether the current interdisciplinary nature of the certificates is an effective approach. This assessment involved interviewing various stakeholders in order to gain multiple perspectives and completing a self-study questionnaire in order to establish a baseline for future work. We will use the results to update the programs' curricula.

In this study, I especially examined the following issues:

- Because technical communication is an applied, professional field, I raised questions as to whether the knowledge and abilities that students gained in their courses of study adequately prepared them for diverse workplace challenges. In general, the interviewees seemed to think the coursework was appropriate to develop the needed skills. They offered a few suggestions for changes, as listed below, but most of these were small.

- A second area of inquiry for this study was to discern whether the current interdisciplinary approach of the two certificates is beneficial. The interviewees, especially the certificates' recipients, generally thought the interdisciplinary approach was an asset of the programs.

Data collection methods and analysis of the results

I used two major data collection methods for this project:

1. With the approval of IUPUI's Institutional Review Board, I interviewed 5 graduates, 2 employers, and 7 practicing technical communicators who are members of the Indiana chapter of the Society for Technical Communication about their experiences with technical communication and their perceptions of the certificate programs. I focused specifically on their perceptions of the necessary skills and on whether the interdisciplinary approach is useful. (See interview questions in Appendix B.) As part of the interview, I asked participants to complete a questionnaire based on Kenneth Rainey's 2001 taxonomy of abilities technical communicators need. (See Appendix C for this survey.) I collated the qualitative results of the interviews in order to discern trends. In addition, I analyzed the results of the survey quantitatively; graphs of these results appear in Appendix D. In analysis of the responses to the Rainey-based questionnaire, I noted that some areas were important to this population while others were less so. However, none of the areas was considered unimportant by most of the interviewees, indicating that the abilities that we are teaching our students, as long as they are consistent with the Rainey taxonomy, are appropriate for them to learn.

2. With the collaboration of relevant colleagues, I completed the self-study questions that the national Council on Programs in Technical and Scientific Communication (CPTSC) has developed for programs that wish to undergo a review. (See http://www.cptsc.org/review/selfstudy.pdf for a copy of the questions. These questions were modified to fit the programs' unique interdisciplinary situations.) Although we are not conducting a formal review of the program at the time, answering these questions helped up develop a baseline

for the current certificates in order to assist in setting directions for the future. (Responses to the CPTSC questions appear in Appendix E.)

Obstacles/challenges encountered and changes made to address them

I had originally planned to interview 10 people in each of the three categories mentioned above, but was unable to find that many volunteers. However, I was able to get interesting results from those that I did interview. Clearly, if I wished to gain perspectives from a broader population, I would need to conduct more research in the future. Another challenge was finding time to analyze the qualitative responses. I plan to do more analysis of these results in the near future, but I was able to discern a few trends in my informal analysis of interviewee responses.

Overview of Initial Results

In trying to ascertain what skills are needed and should be taught in technical communication, we face several challenges:

- The field is diverse.
- The field evolves
- The abilities are complex

As educators, we want to provide useful skills, but also want more to do more than "training" for our students. Hence, I undertook this study in order to discern if the abilities that we are teaching our students are relevant and effective.

Several thinkers have tackled the problem of what abilities to teach technical communication students.

- Coon and Scanlon (1997) surveyed recent graduates of one institution. In 44 responses (out of 140 surveys sent,) they found the following areas in which students would have liked more skill development: computer applications, writing, practical skills, public speaking, and business.
- Wilson and Ford (2003) interviewed 10 Masters in Technical Communication graduates to see what skills they needed. They found especially three skills lacking in that master's program: understanding general business concepts, marketing oneself, and researching challenging information.
- Aimee Whiteside (2003) analyzed 24 (of 146) surveys from technical communication graduates. She also surveyed and interviewed 37 managers. The two groups agreed on some of the areas in which students needed more preparation, but they disagreed in other areas. The graduates felt deficient in business operations and software tools/computer languages. The managers saw strengths in written and oral communication and software tools but saw deficiencies in project management, problem-solving skills, and business operations knowledge in the technical communicators who worked under them.
- In their survey of 67 technical communicators' managers, Rainey, Turner, & Dayton (2005) generated a list of abilities divided into three levels. The primary skills needed were collaborating, writing for audience and purpose, assessing and learning to use technologies, and initiating and evaluating. The secondary skills included creating in various media as well as writing, editing, and testing documents. Tertiary skills included testing for usability, using single sourcing/content management, instructional design, budgeting, oral presentations, researching, creating for multi-media, and showing cultural awareness. These 15 abilities don't include everything a technical communicator might need to do. However, the list is more complete than those found in the previous studies.

However, because the field is evolving, I wanted to ascertain what abilities our current students may need to develop.

Generally, the interviewees thought our coursework was on a good track. Suggestions for changes were minor. In preliminary analysis of the comments from the interviews of employers, practicing technical communicators, and graduates or our programs, I gained the following insights:

1. We may want to offer a course in technical marketing communication
2. W may want to encourage a course in general business principles in order to enable students to see how their work fits into the corporate structure so that they can make effective arguments for their work.

3. We may wish to continue the interdisciplinary nature of the programs given that there was good support for it, especially from the graduates.
4. Our emphasis on communication rather than tools is appropriate. However, we may need to introduce students to content management systems software.
5. We may need to offer more experience working with new media in the undergraduate program.
6. Technical communicators currently work more independently than they used to, so the curricula need to teach relevant skills.
7. Several of our graduates are working in fields related to technical communication such as usability, project management, or administration. However, they reported that the communication abilities and processes that they learned in the certificate program served them well in these related careers.
8. We may want to branch more into medical technical communication.
9. We may want to pursue the creation of a minor or a 4-year major.
10. Graduates will still need to learn on the job, but the certificate programs gave them a good foundation.
11. We may want to help students to learn about and analyze new software tools as they come along. We might do so in mini-courses.
12. We may need to market our certificates to relevant audiences.

Although the sample size was small (14), many of these insights bear scrutiny. More detailed analysis of the qualitative results will need to be conducted before we decide on curricular changes.

In looking at the quantitative rankings from the survey based on the Rainey taxonomy (see Appendix C for the survey), I gave each item a numerical weight, tallied those, and averaged them among the 14 respondents to gain a score ranging from 1-4, with 4 being "very important." Charts in Appendix D illustrate the results. Admittedly, this sample was small, but some abilities listed in the survey stood out as more important than others did, as discussed below

- Most items in Professional abilities category averaged at or above 3. The Media and Execution categories were low. Advocacy and Research were high. "Tools" also was not highly ranked, contrary to what one may see in some job advertisements for Technical Communicators that request the ability to employ specific software applications.

- In the Analytical category, Logic is quite low. I think this is appropriate because the logic that one uses for persuasion is probably not present in descriptive or procedural discourse. One manager even said that this category was "not applicable" for a technical communicator. Editorial memory and Synthesis were highly ranked. One participant noted that she would have rated Synthesis higher if she could have.

- In interpersonal skills, both areas were rated highly. This rating is consistent with the literature in that interpersonal abilities were deemed of great value. One participant said, "I'd give interpersonal communication 3 'very importants" if I could."

- The rankings for Self Management, all above 3, also seem consistent with the literature. One participant noted that priority setting sometimes depended on others within the organization. Of the entire category, one interviewee noted "These are all workplace behaviors. If we provide good services, we need to be good workers."

- The category of Development/Management had some of the lowest scores of the survey. Both employers said that "Managing Process" was only "important." This low rating surprised me, but one participant pointed out that the importance depends on the size of the organization and the culture of the organization. Some technical communicators are not involved in managing the process. These low rankings disagree a bit with the literature mentioned above.

- The Career category also had low scores in several areas. One reason may be that if organizations don't reward technical communicators for professional development activity, they may tend not to pursue it. One interviewee noted that the ranking depended on one's ambition. Interviewees gave

items in this category the only rankings of "un-important" in the survey. Leadership was especially lowly ranked

After the categorical analysis, I looked for items that scored 3.25 or above to see what were the strongest skills in the perceptions of these participants. These highly-ranked abilities included Detail, Synthesis, Editorial, Advocacy, Research, and Priority Setting. I also analyzed items that scored below 3. These included Execution, Media, Project Management, Goal Setting, Keeping up with Trends, Process Management, Logic, and Leadership. Although these areas still earned respectable scores – no one said that any of the items on the survey items were "very unimportant," and there were only a few that earned the ranking of "unimportant" – it is clear that some of these categories have lower rankings overall than other items. Some of these rankings, both high and low, are consistent with the literature, while some are not.

Although drawn from a small sample, these varied responses indicate the complexity and the changing nature of the field of technical communication, issues that we will need to consider as we seek to revise our curricular offerings in both certificate programs.

In answering the CPTSC questions (see Appendix E), I learned more about the programs, but I also discerned areas in which we may need work. I also learned that the questions were designed for self-contained programs, not interdisciplinary ones like ours, so some of the questions were not relevant. Nevertheless, the process of answering these questions helped me to make concrete some perspectives that had previously been vaguely understood.

This project will continue. I plan to look more deeply at our answers to the questions from the CPTSC list to see the areas in which we may improve. I also plan more extensive analysis of the qualitative results from the interviews. I have already shared preliminary results of the study in an April 2008 presentation to the Indiana Chapter of the Society for Technical Communication. Furthermore, I plan to shape these results into an article to share with other administrators of technical communication programs. And, most importantly, I plan to use these results as we work to improve our course offerings and publicize our programs.

Resources

- Coon, Anne and Patrick Scanlon. "Does the Curriculum Fit the Career? Some Conclusions from a Survey of Graduates of a Degree Program in Professional and Technical Communication." **Journal of Technical Writing and Communication** 27:4. 1997.
- Rainey, Kenneth. "Core Competencies for Technical Communicators: Preliminary Findings." **TC-Forum** March 2001.
- Rainey, Kenneth, Roy Turner, and David Dayton. "Do Curricula Correspond to Managerial Expectations? Core Competencies for Technical Communicators." **Technical Communication** 52:3. 2005.
- Whiteside, Aimee "The Skills that Technical Communicators Need: An Investigation of Technical Communication Graduates, Managers, and Curricula." **Journal of Technical Writing and Communication** 33:4. 2003

Appendix A: Descriptions of the IUPUI Technical Communication Certificates

For more information on the undergraduate Technical Communication Certificate, see: http://www.engr.iupui.edu/tcm/fcertificate.shtml.

For information about the Technical Editing track in the graduate Technical and Professional Editing Certificate, see: http://www.liberalarts.iupui.edu/iat/Pages/AcademicPrograms/ProfessionalEditing.htm

Appendix B: Interview Questions

For employers/supervisors of technical communicators

What is your current position?
How did you prepare for this position?
About how many technical communicators have you employed/supervised over the years?
What abilities do you look for in a new technical communicator?
What are the most important communication abilities?
What are the most important technical abilities?
What are the most important general abilities?
Which of these should IUPUI teach future technical communicators?
Comments on our curricula? (At this point, I showed interviewees copies of our certificates' requirements.)
Other comments?

For practicing technical communicators

What is your current position? How many years have you been in that position?
What other relevant positions have you held?
How did you prepare for your current career?
What are the most important communication abilities for technical communicators?
What are the most important technical abilities?
What are the most important general abilities?
Which of these abilities should IUPUI teach future technical communicators?
Comments on our curricula? (At this point, I showed interviewees copies of our certificates' requirements.)
Other comments?

For certificate recipients

In what year did you receive the certificate?
What job(s) have you held since graduation?
What abilities were needed in these positions? (Communication, Technical, General)
To what extent did you cultivate these abilities in the Technical Communication Certificate program? What was learned on the job?
What abilities would you like to see the program teach future students?
How useful was the option for taking courses in multiple disciplines for the certificate?
Other topics?

Appendix C: Survey based on Kenneth Rainey's 2001 taxonomy

Professional Core Competencies				
	Very Important	**Important**	**Unimportant**	**Very unimportant**
Advocacy Ability and willingness to be an advocate for the user.				
Design Knowledge of information design, presentation of data, language conventions, communication principles and theory.				
Execution Ability and willingness to apply information design, language, and communication models, theories, rules, and standards.				
Innovation Ability and willingness to be open to new ideas without sacrificing usability or accuracy.				
Use of Media Ability and willingness to understand the requirements and uses of different media and to apply them appropriately.				
Research Skills Ability and willingness to gather relevant and accurate information and analyze it for appropriateness.				
Use of Support Tools Ability and willingness to use appropriate support tools, including computer application software.				
Usability Understanding of usability, skill in user and task analysis, and the ability and willingness to provide value to the user of the information				

Analytical and Conceptual Competencies (A)

	Very Important	Important	Unimportant	Very unimportant
Analysis Ability to recognize patterns and relationships.				
Logic Ability to identify logical fallacies.				
Editorial Memory Ability to remember the use of words and visual symbols and their meanings and to identify inconsistencies in their use.				
Relevance Ability to ascertain relevance and usefulness.				
Synthesis Ability to integrate relevant discrete pieces of data to form concepts and extract procedures and rules.				

Interpersonal Competencies (I)				
	Very Important	Important	Unimportant	Very unimportant
Inter-personal Communication Ability and willingness to establish collaborative relationships with people of different backgrounds, status, education, and expectations.				
Team Skill in working with groups and willingness to be a contributing member of a team.				

Self Management Competencies (S)				
	Very Important	Important	Unimportant	Very unimportant
Detail Orientation Appreciation of the importance of attending to details that affect quality, timeliness, and goal achievement.				
Organizational Ability Ability and willingness to be efficient and not waste time or resources				
Priority Setting Ability and willingness to set priorities that are more likely to meet goals.				
Reliability Ability and willingness to produce consistently.				
Time Management Ability and willingness to focus attention on tasks that are more likely to meet goals.				

Information Product Development and Management Competencies (M)				
	Very Important	Important	Unimportant	Very unimportant
Project Management Ability to coordinate and schedule activities, control resources, and manage and mitigate risk.				
Process Management Ability to define or design the processes required to manage and measure the life cycle of an information product.				

Career Management Competencies (C)				
	Very Important	Important	Unimportant	Very unimportant
Staying Current Willingness to stay up to date with tools, media, subject areas, content; willingness to invest in continuous learning.				
Goal Setting Willingness to set career goals and manage personal risk.				
Investment Willingness to invest time and other resources in one's career.				
Technical Knowledge Ability and willingness to understand the technical content and user's context for applying the content.				
Leadership Willingness to provide leadership about professional issues and promote the profession; having the skill to be politically astute.				
Professional Involvement Willingness to stay involved in professional issues and contribute to the promotion and development of the profession.				
Keeping up with Trends Willingness to stay aware of industry, social, and global trends				

(Survey categories come from the work of Kenneth Rainey "ET10: Core Competencies for Technical Communicators" in **TC-Forum** October 6, 2001. http://www.tc-forum.org)

Appendix D: Quantitative Results Based on the Survey

Figure D1: Numbers of interviewee responses about the importance of the technical communicator's areas of competency in Rainey's taxonomy

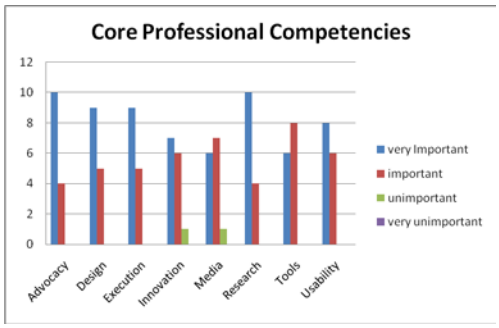


Figure D2: Numbers of interviewee responses about the importance of analytical competencies from Rainey's taxonomy

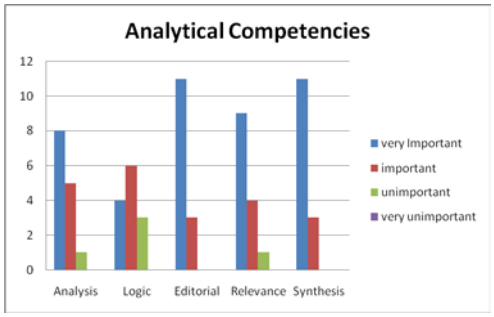


Figure D3: Numbers of interviewee responses about the importance of interpersonal competencies from Rainey's taxonomy

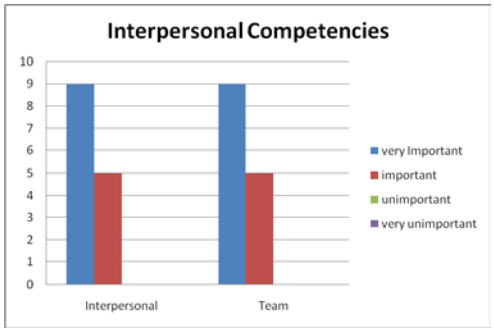


Figure D4: Numbers of interviewee responses about the importance of self-management competencies from Rainey's taxonomy

Figure D5: Numbers of interviewee responses about the importance of development/management competencies from Rainey's taxonomy

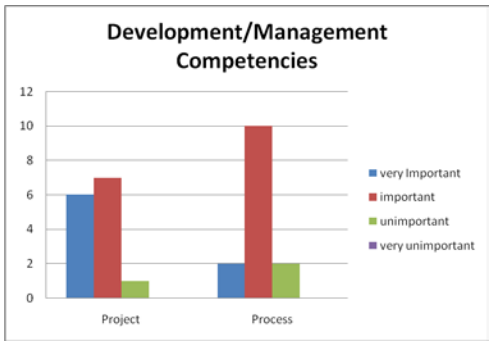


Figure D6: Numbers of interviewee responses about the importance of development/management competencies from Rainey's taxonomy

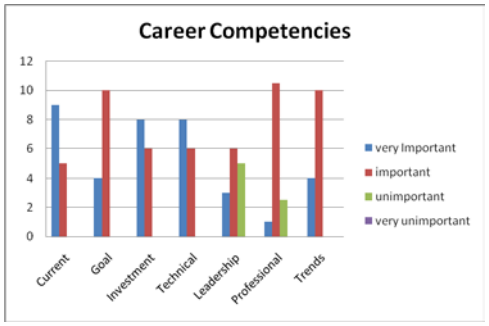


Figure D7: Average rankings of interviewees' perceptions of the importance of the core professional abilities (on a scale from 1-4 with 1 being "very unimportant" and 4 being "very important.")

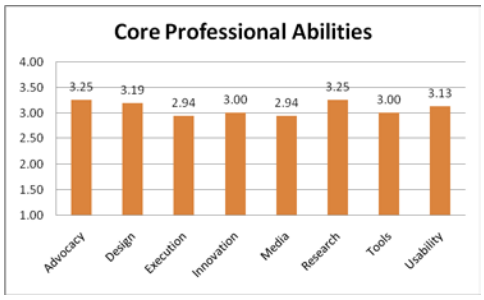


Figure D8: Average rankings of interviewees' perceptions of the importance of the analytical abilities (on a scale from 1-4 with 1 being "very unimportant" and 4 being "very important.")

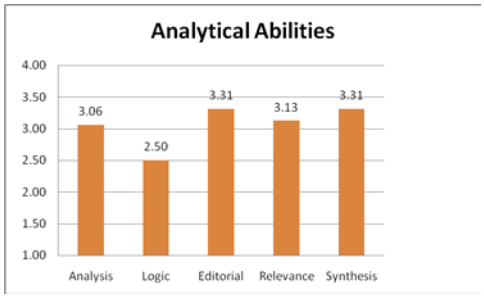


Figure D9: Average rankings of interviewees' perceptions of the importance of interpersonal abilities (on a scale from 1-4 with 1 being "very unimportant" and 4 being "very important.")

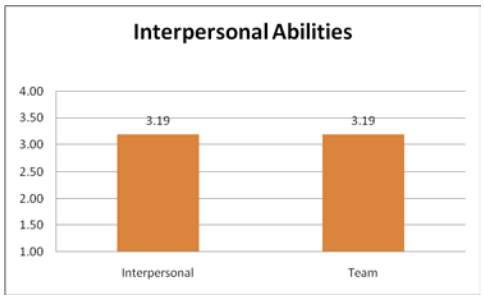


Figure D10: Average rankings of interviewees' perceptions of the importance of the self-managment abilities (on a scale from 1-4 with 1 being "very unimportant" and 4 being "very important.")

Figure D11: Average rankings of interviewees' perceptions of the importance of development/management abilities (on a scale from 1-4 with 1 being "very unimportant" and 4 being "very important.")

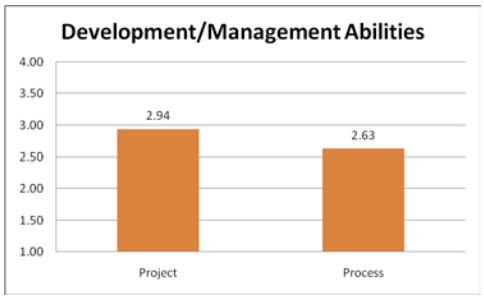


Figure D 12: Average rankings of interviewees' perceptions of the importance of career abilities (on a scale from 1-4 with 1 being "very unimportant" and 4 being "very important.")

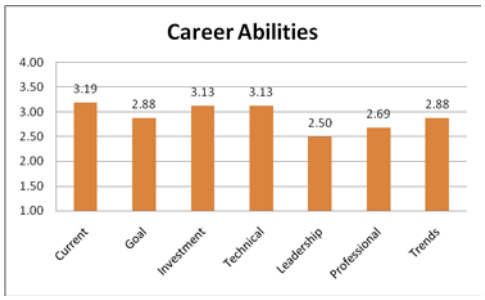


Figure D 13: Items from the survey that averaged below a score of 3.00

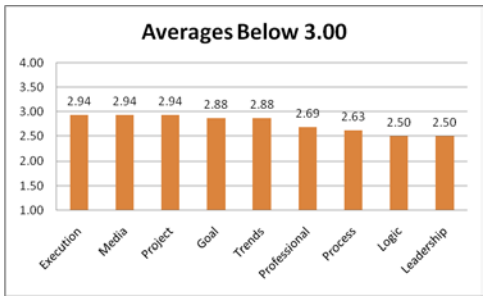
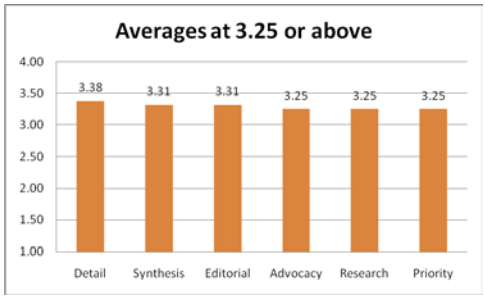


Figure D 14: Items from the survey that were ranked at 3.25 or above.



Appendix E Responses to the CPTSC Questions for the Graduate Track and the Undergraduate Program

COUNCIL FOR PROGRAMS IN TECHNICAL AND SCIENTIFIC COMMUNICATION (CPTSC) – GUIDELINES FOR SELF-STUDY – IUPUI's Graduate Technical Editing Certificate

I. Focus of the Evaluation

What are the program's current concerns?
We are concerned in the Technical Editing Certificate about low enrollment numbers. We want to look at how to encourage more students to enlist in the track and enroll in the courses. We are also concerned with clarity of purpose of the Technical Editing concentration within the context of the other Professional Editing certificates.

What changes (if any) is the program planning to implement?
Those will depend on the outcomes of this assessment.

II. Curriculum

A. Courses and Goals

1. What Scientific and Technical Communication courses are currently taught in your department? How are they related? Indicate which courses are required, and which ones require prerequisites.

Requirements for the Graduate Certificate in Technical Editing include:

Core Courses for the Technical Editing Concentration (12 cr.)

- **W531 Designing and Editing Visual Communication (4 cr.)**
- **W532 Managing Document Quality (4 cr.)**
- **W609 Directed Writing Project (4 cr.)**

Open elective course: one course, 3-4 credit hours.

Students may select one or two courses (depending on the number of hours required to meet the 15-hour certificate minimum after completing the core courses). Any of the core options listed in the Professional Editing website, http://www.liberalarts.iupui.edu/iat/Pages/AcademicPrograms/ProfessionalEditing.htm outside of the student's chosen field concentration may be counted as an open elective. Any of the following courses can count as well:

- **W525 Research Approaches for Technical and Professional Communication (4 cr.)**
- **N501 Principles of Multimedia Technology (3 cr.)**

- **I501 Introduction to Informatics (3 cr.)**
- **I502 Information Management (3 cr.)**
- **J560 Topics Colloquium: Writing, Editing and Designing for the World Wide Web; Digital Photography; Informational Graphics (3 cr.)**
- **J563 Computerized Publication Design I (3 cr.)**
- **J565 Computerized Publication Design II (3 cr.)**
- **L505 Organization and Representation of Knowledge and Information [SLIS] (3 cr.)**
- **L590 Internship in English [English] (4 cr.)**

2. What courses supporting Scientific and Technical Communication do areas outside your department offer? Indicate which courses are required and which ones have prerequisites.
Several courses, usually in the elective categories, in the list above are offered by other departments and schools.

3. What are the goals of the program?
The main goal of the graduate certificate is to prepare students for entry level or slightly more advanced positions in technical communication, especially in editing. The certificate can be a "stand-alone" credential or it can supplement a master's degree being earned in a relevant field. In this track, we want students to gain perspectives on creating and editing technical communication, focusing especially on the contextual factors that influence the processes of creating communication materials.

4. What goals do the administration and faculty in other departments think the program should have?
We don't have a clear picture of that.

5. What are the program entrance requirements?
Students need to submit an application, three letters of recommendation, and their undergraduate transcripts. If they are currently enrolled in a Master's degree program, the process is simpler. The Director of the Professional Editing Certificate decides on admissions.

B. Syllabus

1. Does each Scientific and Technical Communication course have a standard syllabus?
Yes.

2. Is there a logical sequence of courses and of course units or assignments for each course?
Yes.

3. Are there opportunities for faculty to share and develop syllabi? What control does the Scientific and Technical Communication program administrator have over syllabi and their development?
Faculty members may not be aware of each other's syllabi. The administrator doesn't control the syllabi.

4. What opportunities exist for experimentation?
Faculty members look to improve their courses and to keep up with current trends in technology. New courses have been developed in the past few years as needed.

5. How is class time apportioned per day, per week, per term?
Graduate courses typically meet once a week for 2.5 hours per meeting for 16 weeks.

6. How much writing, and what kind of writing, must students do for each course?

- **W531 Designing and Editing the Visual Elements of Technical Documents – typically requires a project plan, a companion set of paper and electronic publications for a client, and a user manual along with various planning materials including usability testing and reporting materials.**

- **W532 Managing Document Quality – typically requires documents addressing project planning, usability testing, and a major group project for a client.**

- **W525 Research Approaches for Technical and Professional Communication – typically requires project planning documents, research design documents, and a group report over the results of research.**

- **W609 The amount of work varies with the course but it's typically equivalent to or greater than the work in the other three courses.**

7. What labs, if any, are students required to take as part of their major?
None. However, courses frequently meet and work in computer classrooms.

8. Are there courses in the program in speaking and oral presentation? Is an oral component part of any other classes required for the major?
No required courses, but students typically present oral reports along with written reports for clients in W531, W532, and W525.

9. Are there any courses in the program specifically devoted to reading skills?
No.

10. Are there any courses in the program dealing with research methodology?
Yes, Research Approaches for Technical and Professional Communication addresses non-academic research approaches for practitioners.

11. Are there any courses in the program dealing with the pedagogy of Scientific and Technical Communication?
No.

C. Instructional Methods and Materials

1. What methods are used to deal with student writing in the program's writing courses? Are these methods consistent with the program's goals?
We usually focus on process, requiring planning materials and revisions. In addition, we do not lecture a great deal, focusing instead on students' hands-on activities to help them learn. These approaches seem consistent with the track's goals to help students learn to be self-directed and to consider process as well as audience and other contextual factors.

2. What kinds of classroom activities are most common?
Group discussions, studying examples, minimal lecturing, and in-class writing time.

3. Do the writing courses use textbooks? How many and what kind (handbooks, rhetorics, anthologies, workbooks, dictionaries, etc.)? Which books are used in which courses?

- **W531, the Visuals course has used Kostelnick and Robert's Designing Visual Language but is considering switching to Kimball and Hawkins Document Design: A Guide for Technical Communicators**
- **W532, Managing Document Quality uses Barnum's Usability Testing and Research and Robinson and Etter's Writing and Designing Manuals**
- **W 525, Research Approaches, has used a variety of texts in the past, but currently the professor is creating a textbook because none seems to exist that focuses on practitioner concerns.**

4. Who makes decisions about texts? What options are available for faculty and for teaching assistants or adjunct faculty?
Faculty members choose texts.

5. Why is the program using the textbooks it is currently using?
These seemed to be the best ones available that met our needs.

6. What instructional materials and media does the program use other than textbooks?
Most courses extensively use Oncourse, the university's on-line learning environment.

7. Does the program use student writing as instructional material? Are there reproduction facilities readily available to duplicate student work for classes?
Student writing is used in two ways: 1) Students share drafts with peers who review them in small groups. 2) Examples from students from previous semesters (with identifying features removed) are shown as examples of genre conventions.

8. Do writing teachers have adequate office space for conferring with students?
Yes.

9. Do teachers in the program require use of the computer for any courses?
We use computers a great deal to complete projects, conduct research, collaborate, and create documents in all of our courses.

What computer facilities are available for faculty and to students?
We sometimes have access to computer classrooms during class, there are computer labs with open hours where students can go to work, and full-time faculty members have individual computers in their offices. In addition, some students have laptops with which they can connect to the university's wireless network when on campus.

What fee structure or other course requirements are used to control access to computing?
Students pay a lab fee and a fee for each page they print.

What kinds of computer applications are used or available?
We use Word, Excel, Publisher, Explorer, Outlook and various graphics and web-page development programs.

D. Testing

1. What tests and testing procedures does the program currently use for placement and exemption? Why are these particular tests used? Have they been validated for the population of students they are administered to at this institution?
N/A

2. How are placement decisions made and carried out? Does the program evaluate proficiency? If so, how?
N/A

3. How are the tests administered? Who administers them? Who scores them? How are those who administer and score tests compensated? What kind of and how much compensation do they get?
N/A

4. What is the program's policy on transfer students?
We have not yet dealt with this issue.

E. Grading Practices

1. What is the institution's grading system? How does the program's grading system relate to the institution's grading system?
IUPUI uses an A-F system.

2. How are grades determined in individual courses? Are there agreed-upon criteria? If so, how are these criteria enforced? If not, how does the program arrive at uniformity in grading?
Faculty members spell out on their syllabi exactly how grades will be determined, including what percentage each assignment contributes to the final grade.

F. Internships

1. Does your program have an internship option for students?
It's an option for graduate students, but not many have taken advantage of it.

2. Are internships supervised? Who is responsible for supervision?
Internships are lightly supervised. Faculty members help to set up the internship and determine a final grade.

3. Where, typically, have students been placed for internships?
One was placed in a writing position for a radio program on medical topics.

III. Program Administration

A. Institutional and Program Structure

1. What is the size and makeup of the department or administrative unit in which the Scientific and Technical Communication program is housed?
The interdisciplinary Editing Certificate is part of the School of Liberal Arts and is administered from the School's Institute for American Thought. The Coordinator of the Technical Editing concentration holds a joint appointment between the School of Liberal Arts' English Department and the School of Engineering and Technology's Technical Communication Program.

What is the governing structure of that department or unit?
Deans oversee both schools.

What percentage of full-time faculty at each rank, adjunct faculty, and graduate student teach in the program?
One Associate Professor teaches the core courses in the Technical Editing concentration.

2. How many writing courses do faculty members at each rank or status teach?
Five/year for the full-time faculty person.

3. What is the internal governing structure of the Scientific and Technical Communication Program? Is there a Scientific and Technical Communication program administrator ("director of technical communication," "scientific and technical communication committee chair," etc.?) If so, what is this person's administrative relation to other levels of administration? To whom is this person responsible?
The Administrator of the Certificate oversees the admissions and graduation and advising. The Coordinator of the Technical Editing concentration advises students within that concentration.

4. How is the Scientific and Technical Communication program related through administration and curriculum to other departments and divisions in the institution?
One faculty member has a joint appointment between the Technical Communication Program in the School of Engineering and Technology and the English Department in the School of Liberal Arts and typically teaches one course a year for the English Department. Although the English Department offers the courses for the graduate concentration, the certificate also uses courses from several schools and departments such as Journalism, Informatics, Communication Studies, and Library/Information Sciences.

5. If there are night-school or non-degree programs, what control does this administrator have over the way the Scientific and Technical Communication courses are taught in those programs? How does the administrator exercise that control? What responsibility does the administrator have for the teaching of technical communication (e.g., "Technical Writing for Engineers") in other departments or colleges within the institution?
N/A

6. Where do the funds that support the Scientific and Technical program come from? Who administers that money? What is it spent on?
Faculty members do the work as part of their academic appointments.

7. Who hires, promotes, tenures, salaries, and assigns courses to Scientific and Technical Communication staff?

Faculty members who are already in place decide on course that they would like to offer.

8. How are new teaching positions in the Scientific and Technical Communication program determined, and by whom?
New teaching positions have not been created recently.

9. Who determines class size, curriculum, and teaching load?
Curriculum is determined by the faculty members. The school determines the class size and the teaching load.

10. How are the program's internal problems solved? Who decides on syllabi, testing procedures, textbooks, curriculum, etc? What voice do full-time faculty, part-time faculty, teaching assistants, and students have in shaping scientific and technical program policies? What permanent or ad hoc committees relevant to the Scientific and Technical Communication program exist? How are these committees appointed? What do they do?
Decision making is handled on a case-by-case basis.

11. What are the procedures for negotiating complaints about grading, teaching, and administrative processes and policies?
On a case-by-case basis.

B. Scientific and Technical Communication Administrator's Job Description

IV. Faculty Development

A. Current Conditions

1. How many full-time and part-time people teach program courses?
One full-time professor teaches the graduate technical editing courses.

2. What training and experience do these teachers have? What professional organizations do they belong to? What is their record of research, publication, and conference participation?
This faculty member holds a PhD and has taught technical communication for about 15 years. She belongs to NCTE, ATTW, STC, and ASEE. This person is primarily responsible for teaching, so her research, publication, and conference records are probably lower than those of colleagues at other institutions more focused on the research enterprise.

3. How are high-quality teaching and research rewarded, especially in terms of salary increase, promotion, and tenure?
Research, teaching, and service are all considered when making salary, promotion, and tenure decisions.

4. What courses, speaker programs, workshops, awards, and support series does the program offer or support to encourage excellence in teaching scientific and technical communication? What opportunities for faculty development already exist? Who uses them? How do faculty find out about them? In what ways are faculty members encouraged to avail themselves of these opportunities?
These resources typically come from the campus in the form of workshops and seminars. The campus Center for Teaching and Learning has provided support for developing on-line courses. Support is also available from the School in the form of sabbatical funding and teaching awards. Faculty members learn about them through e-mail messages sent to everyone.

5. What kinds of work and activities occur during department or program staff meetings? How frequently are these meetings held? Who attends them?
The faculty members of the graduate certificate track do not meet regularly.

B. Support for Faculty Development

1. How is "faculty development" defined as a goal of the institution, the department or administrative unit, and the Scientific and Technical Communication program?
N/A

2. What financial resources are available for workshops, speakers, travel to conferences, developing research, and evaluating new Scientific and Technical Communication courses and new teaching techniques?
Assessment activities for the certificate have been funded by the campus Program Review and Assessment Committee.

3. What is the faculty attitude toward faculty development? What is the faculty attitude toward training that is designed to improve the teaching of Scientific and Technical Communication? What is the attitude of composition teachers, speech teachers, humanities teachers, and literature teachers toward Scientific and Technical Communication teachers? What is the attitude of faculty in one area of the Scientific and Technical Communication program (e.g., speech, graphics, rhetorical theory, etc.) towards the other area or areas?
The core faculty member is dedicated to improving her teaching of technical communication. However, she often feels overwhelmed with day-to-day work and so may not dedicate a great deal of time to professional development. People in related fields probably don't understand the technical communication's faculty member's emphasis on functional writing that is highly dependent on context for its value.

4. How are faculty encouraged to develop their skills in Scientific and Technical Communication research and teaching? What opportunities exist for learning about faculty development programs at other institutions?
Faculty members are encouraged to attend conferences and on-campus workshops. No opportunities exist for learning about faculty development programs at other institutions.

IV. Support Services

A support service is a facility that provides learning resources to expand and enhance classroom instruction. Examples may include such services as libraries, computer labs, a writing center, a computer center, a placement office.

A. Definition

1. What support services exist at the institution? What specific kinds of help do these services offer to students and faculty?
Campus University Information Technology Service (UITS) provides students and faculty members with training mini-courses in various computer applications. The campus Office of Professional Development helps faculty members improve their teaching and their use of technology for pedagogical purposes. The campus library and its liaison to the School of Liberal Arts provide information about new publications in the field. Also, the library provides on-line databases that students can use to conduct secondary research projects.

2. What are the goals and instructional plans of each service? Do any services offered by the Scientific and Technical Communication program and the support services overlap? Do their common services reinforce each other or conflict?
UITS provides technical training so that our courses can focus on the communication aspects of technical communication.

3. How is each support service coordinated with the Scientific and Technical Communication program? Is it through scheduling, a coordinating committee, or another way?
N/A

4. Do the entire faculty in the Scientific and Technical Communication program and elsewhere in the institution know that all these services exist? What is the faculty attitude toward these services? Do they send their students to them, or use them themselves?
All faculty members know that these exist and encourage students to use these resources.

5. Who uses each support service? How are students placed in or referred to each support service? What is the profile of students who use each service? Of faculty who do so?
Unknown

6. How is information about each service conveyed to students and faculty?
Fliers, e-mail, word of mouth.

7. What evidence is there that each service meets the goals it sets for itself or that the institution has set for it?
N/A

COUNCIL FOR PROGRAMS IN TECHNICAL AND SCIENTIFIC COMMUNICATION (CPTSC) -- GUIDELINES FOR SELF-STUDY
Undergraduate Technical Communication Certificate

I. Focus of the Evaluation Visit

What are the program's current concerns?
One concern is enrollment numbers. We currently have nearly 30 students who are supposedly pursuing the Certificate, but we are unable to adequately fill classes designed specifically for them. We'd like to have a larger pool of students pursuing the Certificate.

Another concern is whether the courses that we are offering are appropriate for the skills students will need in the workplace and whether the students are learning those abilities adequately.

What changes (if any) is the program planning to implement?
We'd like to re-activate our Industrial Advisory Board to give us regular guidance. We'd also like to improve our marketing of the Certificate Program. Finally, we'd like to offer a minor in conjunction with the School of Liberal Arts/English Department.

II. Curriculum

A. Courses and Goals

1. What Scientific and Technical Communication courses are currently taught in your department? How are they related? Indicate which courses are required, and which ones require prerequisites.
Requirements for the undergraduate Certificate include:

Technical Specialty

A technical or scientific major or minor or technical interest demonstrated by nine hours of courses, including CIT 106 or 112 or an equivalent introductory computer course.

Curriculum

Required Courses: 10 credits

- **TCM 220 or 320 - an introductory technical writing course (pre-requisite English W131).**

- **TCM 350 (Visual Elements of Technical Documents) (pre-requisite TCM 220 or equiv.)**
- **Eng W365 (Theories and Practices of Editing)**
- **TCM 435 (Portfolio Preparation)** ***Required for students admitted in fall 2003 or later.***

Selected Courses: 9 credits

- **Eng G205 (Introduction to the English Language)**
- **Eng W315 (Composing Computer-Delivered Text)**
- **TCM 370, Comm C401 or Comm C402 - a course in oral presentation of technical material**
- **Comm R320 (Advanced Public Communication) or Comm R321 (Persuasion)**
- **Comm C228 (Discussion and Group Methods) or Comm C380 (Organizational Communication)**
- **OLS 274 (Applied Leadership), OLS 375 (Training Methods) or OLS 474 (Conference and Meeting Leadership)**
- **Jour J463/J563 (Desktop Publishing) or Jour J390 (Corporate Publications)**
- **IET 364 (Total Quality Control)**
- **TCM 395 (Independent Study)**
- **TCM 420 (Field Experience in Technical Communication)**
- **TCM 499 (Selected Topics in Technical Communication – variable titles)**
- **A course in visual communication**

Other courses may be approved by the TCM coordinator for a student based on a student's particular interests and career objectives.

Portfolio

Near the end of their coursework, students will present a professional portfolio, suitable for job hunting, which includes three to five documents of various types that demonstrate a range of skills and competencies. Members of the Indiana Chapter of the Society for Technical Communication will review the portfolio and provide responses.

2. What courses supporting Scientific and Technical Communication do areas outside your department offer? Indicate which courses are required and which ones have prerequisites.
Several courses, usually in the elective categories, in the list in #1 are offered by other departments.

3. What are the goals of the program?
The main goal of the undergraduate certificate is preparing students for entry level positions in technical communication. This preparation is intended to supplement a bachelor's degree in a relevant field, either one that the student earns concurrently with the certificate or has earned previously. In this preparation, we want students to have a general acquaintance with technology and the fundamentals of verbal and visual technical communication combined with a specialization that suits their career interests.

4. What goals do the administration and faculty in other departments think the program should have?
As far as we can tell, in the service courses, they would like to see us teach how to do lab reports, possibly collaborate on senior design courses, and teach more of the standard mechanics of writing. But we are not sure what they expect of the TCM Certificate program.

5. What are the program entrance requirements?
For the undergraduate certificate, students can be currently pursuing a bachelor's degree or have already earned one. Other than that, there are no entrance requirements.

B. Syllabus

1. Does each Scientific and Technical Communication course have a standard syllabus?
Most of them do, but some don't.

2. Is there a logical sequence of courses and of course units or assignments for each course?
Yes.

3. Are there opportunities for faculty to share and develop syllabi? What control does the Scientific and Technical Communication program administrator have over syllabi and their development?
For some of the multi-section courses, there has been common development of syllabi. For courses offered less often, there has been informal sharing. The administrator doesn't control the syllabi.

4. What opportunities exist for experimentation?
In the single section courses, there is more room for experimentation. Faculty members look to improve their courses and to keep up with current trends in technology.

5. How is class time apportioned per day, per week, per term?
Undergraduate classes typically meet twice a week for 1.25 hours per meeting for 16 weeks in the semester. However, several on-line courses are offered, so their meeting times vary. A few of the undergraduate courses are offered in tandem with graduate courses, so those usually meet one a week for 2.5 hours in the 16-week semester.

6. How much writing, and what kind of writing, must students do for each course?

- **TCM 220 Technical Report Writing – typically requires 5 documents per semester, focusing on instructional and report genres.**
- **TCM 320 Written Communication in Science and Industry – typically requires e-mail, abstracts, annotated bibliographies/literature reviews, proposals, employment documents, and instructions.**
- **TCM 350/W531 Visual Elements of Technical Documents – typically requires a project plan, a companion set of paper and electronic publications for a client, and a user manual along with various planning materials including usability testing and reporting materials.**
- **TCM 450/W545 Research Approaches for Technical and Professional Communication – typically requires project planning documents, research design documents, and a group report over the results of research.**
- **TCM 425/W532 Managing Document Quality – typically requires documents addressing project planning, usability testing, and a major group project for a client.**

7. What labs, if any, are students required to take as part of their major?
None.

8. Are there courses in the program in speaking and oral presentation? Is an oral component part of any other classes required for the major?
TCM 370 Oral Practicum for Technical Managers is offered as an elective for the undergraduate certificate. In addition, at least one speech is usually required in TCM 220 which some of our certificate students take.

9. Are there any courses in the program specifically devoted to reading skills?
No.

10. Are there any courses in the program dealing with research methodology?
Yes, Research Approaches for Technical and Professional Communication addresses non-academic research approaches for practitioners.

11. Are there any courses in the program dealing with the pedagogy of Scientific and Technical Communication?
No.

C. Instructional Methods and Materials

1. What methods are used to deal with student writing in the program's writing courses? Are these methods consistent with the program's goals?
We usually focus on process, requiring planning materials and revisions. In addition, we do not lecture a great deal, focusing instead on students' hands-on activities to help them learn. These approaches seem consistent with the program's goals to help students learn to be self-directed and to consider process as well as audience and other contextual factors.

2. What kinds of classroom activities are most common?
Group discussions, studying examples, some lecturing, in-class writing time.

3. Do the writing courses use textbooks? How many and what kind (handbooks, rhetorics, anthologies, workbooks, dictionaries, etc.)? Which books are used in which courses?

- **TCM 220 uses a Worley and Fitterling's Technical Writing : The Fundamentals.**
- **TCM 320 uses Paul Anderson's Technical Communication.**
- **The Visuals course uses Kimball and Hawkins Document Design: A Guide for Technical Communicators**
- **Managing Document Quality uses Barnum's Usability Testing and Research and Robinson and Etter's Writing and Designing Manuals**
- **Research Approaches has used a variety of texts in the past, but currently the professor is creating a textbook because none seems to exist that focuses on practitioner concerns.**

4. Who makes decisions about texts? What options are available for faculty and for teaching assistants or adjunct faculty?
The full-time faculty members collaboratively choose texts for multi-section courses. For other courses, individual faculty members choose texts. Part-time faculty members participate in the process for multi-section courses.

5. Why is the program using the textbooks it is currently using?
These are the best ones we can find to meet our needs.

6. What instructional materials and media does the program use other than textbooks?
Most courses extensively use Oncourse, the university's on-line learning environment.

7. Does the program use student writing as instructional material? Are there reproduction facilities readily available to duplicate student work for classes?
Student writing is used in two ways: 1) Students share drafts with peers who review them in small groups. 2) Examples from students from previous semesters (with identifying features removed) are shown as examples of genre conventions.

8. Do writing teachers have adequate office space for conferring with students?

The full-time people do. The part-time people don't.

9. Do teachers in the program require use of the computer for any courses?
We use computers a great deal to complete projects, conduct research, collaborate, and create documents in all of our courses.

What computer facilities are available for faculty and to students?
We have access to computer classrooms at least one day a week, several computer labs offer open hours where students can go to work, and full-time faculty members have individual computers in their offices. In addition, some students have laptops with which they can connect to the university's wireless network when on campus.

What fee structure or other course requirements are used to control access to computing?
Students pay a lab fee and a fee for each page they print. Only students enrolled in an Engineering and Technology course can access the E&T computers.

What kinds of computer applications are used or available?
We use Word, Excel, Publisher, Explorer, Outlook, and various graphics and web-page development programs.

D. Testing

1. What tests and testing procedures does the program currently use for placement and exemption? Why are these particular tests used? Have they been validated for the population of students they are administered to at this institution?
N/A

2. How are placement decisions made and carried out? Does the program evaluate proficiency? If so, how?
N/A

3. How are the tests administered? Who administers them? Who scores them? How are those who administer and score tests compensated? What kind of and how much compensation do they get?
N/A

4. What is the program's policy on transfer students?
Students can earn up to 50% of their courses for the undergraduate certificate at another institution.

E. Grading Practices

1. What is the institution's grading system? How does the program's grading system relate to the institution's grading system?
IUPUI uses an A-F system.

2. How are grades determined in individual courses? Are there agreed-upon criteria? If so, how are these criteria enforced? If not, how does the program arrive at uniformity in grading?
Faculty members need to spell out on their syllabi exactly how grades will be determined, including what percentage each assignment contributes to the final grade. For multi-section courses, common rubrics have been created. Enforcement has not been carried out.

F. Internships

1. Does your program have an internship option for students?
It's an option for students, but not many have taken advantage of it.

2. Are internships supervised? Who is responsible for supervision?
Internships are lightly supervised. Faculty members help to set up the internship and determine a final grade.

3. Where, typically, have students been placed for internships?
One worked in an insurance company setting creating technical documentation and training experiences/materials.

III. Program Administration

A. Institutional and Program Structure

1. What is the size and makeup of the department or administrative unit in which the Scientific and Technical Communication program is housed?
The Technical Communication Program is currently a stand-along program within the Purdue School of Engineering and Technology at Indianapolis, responsible for a quite a few service courses in technical communication for engineering and engineering technology majors. The certificate program is only a fraction of its work. (Within the School, there are approximately 80 full-time faculty members and quite a few part-time faculty members.) The Technical Communication Program itself has three full-time faculty members and uses about 12-15 part-time people each semester. (The Program will soon be integrated into a Department containing people from other fields.)

What is the governing structure of that department or unit?
The Director is appointed by the Dean of the School of Engineering and Technology. Currently, the program is houses in the Design and Communication Technology Department.

What percentage of full-time faculty at each rank, adjunct faculty, and graduate student teach in the program?
Associate Professor –1
Assistant Professor – 1
Lecturer – 1
Part-time Lecturers – 8-10 as needed.

2. How many writing courses do faculty members at each rank or status teach?
Associate Professor 5/year
Assistant Professor – 4/year
Lecturer – 8/year
Part-time Lecturers – 1-2/semester.

3. What is the internal governing structure of the Scientific and Technical Communication Program? Is there a Scientific and Technical Communication program administrator ("director of technical communication," "scientific and technical communication committee chair," etc.?) If so, what is this person's administrative relation to other levels of administration? To whom is this person responsible?
There is a Director of the Program and a Coordinator of the Undergraduate Certificate. A Lecturer coordinates assessment of the students in the service courses.

4. How is the Scientific and Technical Communication program related through administration and curriculum to other departments and divisions in the institution?
As mentioned previously, the program teaches quite a few service courses for majors in engineering and engineering technology. Some of these courses also serve the undergraduate certificate students, but a few courses have been recently developed that focus more on the specialized needs of the undergrad and graduate students pursuing the certificates. One faculty member has a joint appointment with the English Department in the School of Liberal Arts and typically teaches one course a year for that department.

Although the Technical Communication Program offers several courses for the certificates, both certificates offer courses from several schools and departments such as Journalism, Informatics, Communication Studies, and English.

5. If there are night-school or non-degree programs, what control does this administrator have over the way the Scientific and Technical Communication courses are taught in those programs? How does the administrator exercise that control? What responsibility does the administrator have for the teaching of technical communication (e.g., "Technical Writing for Engineers") in other departments or colleges within the institution?
N/A

6. Where do the funds that support the Scientific and Technical program come from? Who administers that money? What is it spent on?
Funding comes from the School of Engineering and Technology, with the Director of the Program administering the budget. The money is spent on salaries, benefits, travel, office expenses, and professional development.

7. Who hires, promotes, tenures, salaries, and assigns courses to Scientific and Technical Communication staff?
Hiring and salary are done by the program and the Dean of the School of Engineering and Technology. The tenure of one faculty member went through the School of Liberal Arts, but the tenure of the second one will go through the School of Engineering and Technology. Course assignments are made by the Director of the Technical Communication Program in consultation with faculty members.

8. How are new teaching positions in the Scientific and Technical Communication program determined, and by whom?
The Dean of the School of Engineering and Technology and the Director of the Program collaborated on the most recent full-time position. The Director is responsible for hiring part-time people.

9. Who determines class size, curriculum, and teaching load?
The class size and curriculum are determined by the TCM Program. The School of E&T determines teaching load.

10. How are the program's internal problems solved?
We usually solve problems through informal discussions.

Who decides on syllabi, testing procedures, textbooks, curriculum, etc?
See above.

What voice do full-time faculty, part-time faculty, teaching assistants, and students have in shaping scientific and technical program policies?
Full-time faculty have the strongest voice, but part-time people and to a limited extent, students, have provided input in the past. We have no teaching assistants.

What permanent or ad hoc committees relevant to the Scientific and Technical Communication program exist? How are these committees appointed? What do they do?
At this time, we have no committees. We hope, however, to reconstitute the Industrial Advisory Committee soon in order to provide guidance and community connections.

11. What are the procedures for negotiating complaints about grading, teaching, and administrative processes and policies?
These are handled informally or in accordance to School of E&T policies.

B. Scientific and Technical Communication Administrator's Job Description

IV. Faculty Development

A. Current Conditions

1. How many full-time and part-time people teach program courses?
Three full-time and 12-15 part-time/semester.

2. What training and experience do these teachers have? What professional organizations do they belong to? What is their record of research, publication, and conference participation?
Of the full-time people, two hold the PhD, and one a master's degree. The part-time people all have at least a master's degree or an equivalent of experience.

The full-time people primarily are responsible for teaching, so their research, publication, and conference records are probably lower than those of colleagues at other institutions more focused on the research enterprise.

3. How are high-quality teaching and research rewarded, especially in terms of salary increase, promotion, and tenure?
Research, teaching, and service are all considered when making salary, promotion, and tenure decisions.

4. What courses, speaker programs, workshops, awards, and support series does the program offer or support to encourage excellence in teaching scientific and technical communication? What opportunities for faculty development already exist? Who uses them? How do faculty find out about them? In what ways are faculty members encouraged to avail themselves of these opportunities?
These resources typically come from the campus in the form of workshops and seminars. The campus Center for Teaching and Learning has provided support for developing on-line courses. Support is also available from the School in the form of sabbatical funding and teaching awards. Faculty members learn about them through e-mail messages sent to everyone.

5. What kinds of work and activities occur during department or program staff meetings? How frequently are these meetings held? Who attends them?
We have held staff meetings for the full-time people about once a month, but these aren't consistent. Once a semester, we hold staff meetings for all the full and part-time people. Some of the time is used for administrative matters, but there is often a presentation or two on pedagogical matters.

B. Support for Faculty Development

1. How is "faculty development" defined as a goal of the institution, the department or administrative unit, and the Scientific and Technical Communication program?
N/A

2. What financial resources are available for workshops, speakers, travel to conferences, developing research, and evaluating new Scientific and Technical Communication courses and new teaching techniques?
Financial support for travel in the 2006-2007 academic year was nonexistent owing to budget challenges in the School of Engineering and Technology. However, up until then it had been quite sufficient. Assessment activities have been funded by the campus Program Review and Assessment Committee.

3. What is the faculty attitude toward faculty development? What is the faculty attitude toward training that is designed to improve the teaching of Scientific and Technical Communication? What is the attitude of composition teachers, speech teachers, humanities teachers, and literature teachers toward Scientific and Technical Communication teachers? What is the attitude of faculty in one area of the Scientific and Technical Communication program (e.g., speech, graphics, rhetorical theory, etc.) towards the other area or areas?
Attitudes are difficult to assess, but from what we can tell, faculty are dedicated to improving their teaching of technical communication. However, they often feel overwhelmed with day-to-day work and so may not dedicate a great deal of time to professional development.

We believe that people in related fields probably don't understand technical communication's faculty members' emphasis on functional writing that is highly dependent on context for value. However, faculty members within the Technical Communication Program seem to get along well together.

4. How are faculty encouraged to develop their skills in Scientific and Technical Communication research and teaching? What opportunities exist for learning about faculty development programs at other institutions?
Faculty members are encouraged to attend conferences and on-campus workshops. No opportunities for learning about faculty development programs at other institutions.

IV. Support Services

A support service is a facility that provides learning resources to expand and enhance classroom instruction. Examples may include such services as libraries, computer labs, a writing center, a computer center, a placement office.

A. Definition

1. What support services exist at the institution? What specific kinds of help do these services offer to students and faculty?

The Technical Writing Center offers individual tutoring to students about any of their technical writing projects.

The Computer Network Center (CNC) offers School of Engineering and Technology students the hardware and software they need to complete their course work. This Center also supports faculty computing. Campus University Information Technology (UITS) provides students and faculty members with training mini-courses in various computer applications. The campus Office of Professional Development helps faculty members improve their teaching and their use of technology for pedagogical purposes. The campus library and its liaison to the School of E&T provide information about new publications in the field.

2. What are the goals and instructional plans of each service? Do any services offered by the Scientific and Technical Communication program and the support services overlap? Do their common services reinforce each other or conflict?
The Writing Center supports the students in our courses and in other E&T courses. In addition, some of the undergrad technical certificate students have served as tutors in the Center. The Computer Network Center supports the technical side of our work, and UITS offers technical training to our students.

3. How is each support service coordinated with the Scientific and Technical Communication program? Is it through scheduling, a coordinating committee, or another way?
The Technical Communication Program coordinates and oversees the Writing Center. The Dean of E&T provides funding for the student employees. One member of the TCM faculty serves on the Computing Resources Committee, providing perspectives to guide the decisions of the Computer Network Center.

4. Do the entire faculty in the Scientific and Technical Communication program and elsewhere in the institution know that all these services exist? What is the faculty attitude toward these services? Do they send their students to them, or use them themselves?
All faculty members know that these exist and encourage students to utilize both Centers highly. Faculty members have used the Writing Center at times, but all use the services of the Computer Center.

5. Who uses each support service? How are students placed in or referred to each support service? What is the profile of students who use each service? Of faculty who do so?
Students are the primary users of the Writing Center, but all faculty and students use the Computer Network Center. Faculty members refer students to the Writing Center, but students can also go there voluntarily. Many international students used the Writing Center for help with ESL issues. Some students are required by their professors in various fields to have their papers reviewed before submitting them for a grade.

6. How is information about each service conveyed to students and faculty?
Through fliers, e-mail, and word of mouth.

7. What evidence is there that each service meets the goals it sets for itself or that the institution has set for it?
Records are kept of Writing Center usage. Faculty members report anecdotally that they have seen improvement in student work after students have used the Writing Center.

B. Personnel

1. What are the qualifications for working in each support service? How are the director and staff selected for each? What is the institutional status (faculty, graduate student, full-time, part-time, etc.) of support service personnel? How are they compensated for their work? How is their work evaluated?
Only information about the Writing Center will be included in this section because this is all that the TCM Program oversees. Tutors for the Writing Center are experienced undergraduates who have received training in tutoring technical writing. Some of the TCM Certificate students have tutored there in the past. These students are paid hourly and have no academic status.

2. How are support service personnel trained?
Some have been trained in the campus Writing Center, and others have been trained by the Director of the TCM Program.

3. What evidence is there of professional development among support service personnel?
N/A

4. What opportunities are there for professional development of support service personnel? How does the institution reward support service personnel for improving the service and for developing themselves professionally?
N/A

5. What kind of relationship exists between the Scientific and Technical Communication program faculty and support service personnel? How do support service personnel view the Scientific and Technical Communication faculty, and vice versa? Do writing program faculty and support service personnel meet regularly to discuss students involved in both programs? Is there an active exchange of information on curricular and administrative matters?
The relationship is informal. The faculty members share syllabi and assignments at times with the Writing Center tutors, and there are informal conversations sharing ideas about technical communication.

6. What role do support service personnel play in formulating Scientific and Technical Communication program policy? What role do Scientific and Technical communication program faculty play in formulating the policies and procedures of support services?
N/A

C. Administration

1. Do students get credit for work completed in support services? If so, how is credit determined?
No.

2. How is each support service funded? Who decides how the money is spent? How is it currently being spent?
The money for the Writing Center comes from the Dean's office. The Director of the Program chooses how many tutors to hire. We currently have two part-time tutors.

3. Does each support service keep records of expenditures, contact hours, enrollment, student work completed, services rendered, credit cards, etc.?
Yes.

4. Does each support service follow-up on students who have used its services?
No.

5. Is there continuing self-evaluation of each service by its staff? Does someone not actively involved in its work regularly evaluate each service?
Nothing formal.

6. What coordination exists between the support services, the Scientific and Technical Communication program, and the institution's admissions and recruitment officers?
N/A