

To: Committee on Curriculum and Instruction
From: James Fredal, Sciences Subcommittee Chair
Re: Revisions to the Communication Technology Focus Area in the
Communication Major

Date: May 1, 2010

The Sciences subcommittee met on April 19, 2010 to consider proposed changes to the Communication Technology focus area in the Communication Major. This is a revision to one focus area within the major to refine and clarify what the area has to offer students; other focus areas will not be affected. Therefore, the overall goals and expected learning outcomes of the major will not be changed. Revisions to the focus area are set to begin in Winter 2011.

The changes were designed to make this area more structured and coherent in response to weak enrollments and assessment data that suggests student confusion about how the focus area is defined, what skills it offers, and what sorts of career choices are available to students who chose it. The changes were made with the support of new faculty in the department, in consultation with departmental advising, and in response to developments within the field and the profession toward greater attention to communications technologies issues. In particular, the revisions highlight training in the design and management of the human-technology interface. To this end, the focus area will have two new tracks for students to pursue: one in Human-Computer Interaction (HCI) and the other in Communication Technology Management (CTM).

The changes involve the development of one new course and three course revisions.

- Communication 450: Principles of Human Computer Interaction is a new course required of all students pursuing this focus area.
- Communication 611: "Communication and Multimedia" will become "Effective Communication for the Web" and will count toward the HCI track within this focus area. The course will retain its focus on user-centered web design, focusing more specifically on contemporary web-design standards including CSS (cascading style sheets) as a model.
- Communication 650: "Investigative Communication through Interactive Technologies" will become "Evaluation and Usability Testing." This course will be the required methods course for this focus area (both tracks), and will emphasize research techniques to evaluate and improve the effectiveness, appeal, and usability of communication technology systems.
- Communication 657: Technology of Communication" becomes "Understanding Communication Networks." This course will be an elective for both tracks and will explore concepts and principles that underlie telecommunication networks and their application to novel systems.

Credit hours for the major will remain the same: core course and electives for the focus area will drop from 40 down to 35 hours; credit hours for the focus area will increase from 10 hours (any two elective courses) to 15 hours (three courses in one of the two new tracks; one from within Communication). Internships and minors continue to be strongly encouraged.

After considering the revisions, the Sciences CCI Subcommittee voted unanimously to approve the revisions. As a result, the proposal is being forwarded to the CCI for its consideration.

Proposal for Revision of the Communication Technology Focus Area in the Communication Major in the School of Communication

1. General Information

- *Name of proposed focus area:* New Media and Communication Technology. This is a revision of one of the three existing focus areas available within the Communication major.
- *Degree students will receive:* Bachelor of Arts in Communication
- *Effective date:* Winter 2011
- *Responsible academic units:* The School of Communication is responsible for all of the required courses in this focus area. Elective options are available from Computer Science & Engineering, Psychology, Business, and Industrial, Interior, and Visual Communication Design.

2. Rationale

- *Rationale/purpose:* The proposed revision is intended to give students in the communication technology program a more structured educational experience and a clearer career trajectory than is currently offered. Coursework in this track has always concerned the unique role that communication technologies play in contemporary society, but with this revision we aim to help students connect this general understanding to a more specific set of intellectual skills. Although some students in the old program have succeeded in crafting for themselves a focused course of study leading to a successful career, others have completed their required coursework without ever understanding how the pieces fit together, and without being able to articulate what they had to offer once they leave OSU.

Our objective is to craft a program that offers a structured course of study that highlights the relationship across courses and that provides students with an understanding of technology that will make them attractive candidates in today's competitive job market. This means revising existing courses to better support these objectives, creating new courses to fill in substantive gaps, and reorganizing the curriculum to reduce redundancy and to ensure that students are exposed to key topics in the field. Despite these changes, the focus area will remain at a maximum of 50 hours.

One important aspect of the curriculum revision is the introduction of two new tracks within the program: Human-Computer Interaction (HCI) and Communication Technology Management (CTM). Even at the undergraduate level, students in this field need to pursue modest specialization. The HCI track concerns both the design of useful, usable interactive communication technologies and the study of the social implications of technological innovation, with an emphasis on the insights generated by communication theory. The CTM track, in contrast, aims to help students understand and effectively communicate about new technologies so that they can facilitate collaboration between managers and technology-oriented personnel.

Obviously, there is overlap between these tracks. Both require that students understand a common set of core principles, and both have applications in a variety of domains. But the differences are important. Students can choose a track that suits their strengths and preference and, having made this choice, will be in a better position to think

about how their education is connected to possible careers. And potential employers could, with time, recognize these tracks as legitimate credentials, signifying a recognizable set of abilities.

Job growth in the tech sector is nothing new, but in the current economic climate it is a noteworthy skill. IDC, a market research firm that focuses on IT, has predicted that this industry may grow by as many as a million new jobs in the next several years (<http://www.npr.org/templates/story/story.php?storyId=122298649>).

The School of Communication is well suited to offer this updated curriculum. New faculty bring with them state-of-the-art expertise as well as research interests and capabilities that will keep instruction and intellectual content current. Finally, our advising staff has been an integral part of the development of this revision and is well prepared to counsel students as they consider and work toward degrees in this focus area.

- *Assessment data:* Student interest in our Communication Technology area has been relatively weak. The School of Communication admits approximately 65 students to this area each year. The faculty in the technology area agree that the area lacks focus, does not have clearly articulated goals, and seems only weakly related to job opportunities and careers in the technology area. These problems likely explain the low levels of interest in this area among students.
- *Unique characteristics or resources:* The School of Communication is uniquely positioned within OSU to offer this focus area. There are relevant courses throughout the university, including in Computer Science and Engineering, Psychology, and Business—and the proposed curriculum aims to utilize these resources—but there is no place at the university where students can systematically pursue an education intended to propel them into a career in HCI or to develop skills that will allow them to bridge the worlds of technology and management.
- *Benefits for students, the institution, the region and state:* The revision to the technology focus area will benefit our students by providing them with the skills and knowledge they will need to gain employment in the new media and communication technology areas. Our faculty in the technology area regard these tracks as integral to preparing students for the job market and for careers in technology.
- *Career opportunities:* Students in the HCI track could target jobs in the world of software and Web development, and would be well positioned to pursue professionally oriented graduate education in the field. On the job market, they would need to seek out entry-level positions that are not too technical, but their diverse exposure to an array of relevant topics, including visual communication, social scientific inquiry, and programming, should allow them to be competitive.

Students in the CTM track could pursue a couple different types of careers. Students who excel in the program and who are passionate about their work could aim for entry-level positions with management consultant firms. A number of these companies offer technology consulting, and although graduate education

would likely be necessary in the long run, some firms actively recruit undergraduates. Students could also pursue careers with companies directly. No organization is untouched by new information communication technologies today, and finding people who understand this infrastructure and are able to talk about it in a clear and easy-to-understand way are in demand. Our students could fill this gap, helping firms more effectively manage technology.

We will monitor progress in this area by tracking students' perceptions of the focus area's adequacy in preparing them for a career (via the graduating student exit survey) and also through annual surveys of our alumni.

- *Licensure or certification:* N/A

3. Goals/Objectives and Evaluation of Program

- *Goals and Objectives:* The faculty re-examined the Major Program Goals and Objectives (see below), in light of the revision. Because we are only changing one program area with the Communication Major (rather than the major itself), we have decided that no changes are necessary.

Goal 1. To offer students knowledge of the principles of communication within a social science framework and to foster an understanding of the role of communication in society

- Students should have an understanding of the principles of communication
- Students should be exposed to systematic trends in the development of core concepts related to communication
- Students should be able to apply critical thinking and analytical skills to systematically evaluate communication problems and processes

Goal 2. To train students in the practice of communication

- Students graduating from the program should demonstrate basic competency in oral communication
- Students graduating from the program should demonstrate competency in written communication

Goal 3. To prepare students for jobs in the field of communication

- encourage each student in our program to complete an internship before graduation
- to facilitate knowledge transfer from the laboratory to the community, students will be encouraged to participate in independent research projects with the faculty.

- *Methods to assess goals and objectives:* Consistent with previous years, we will use indirect measures of success (e.g., student exit surveys of graduating seniors) to assess our goals and objectives. In addition, we will now include responses to our alumni survey to gauge student success and will consider adding direct

- measures of student learning as well (e.g., embedded test questions in required classes to assess competency).
- *Alignment of evaluation methods with objectives:* Our current assessment plan aligns each goal or objective with specific questions on the student exit survey. In addition, to assess Goal 3, we will supplement the data from the student exit survey with data gathered from an annual survey of alumni tapping job placement and satisfaction with the major in preparing them for the job market.
 - *Criteria for evaluating student learning:*
 1. For questions on the student exit survey: the minimum criterion for success will be an average rating of 3.8 (on a scale from 1 to 5). The criterion for excellence will be 4.5.
 2. For the alumni survey: at least 75% of alumni reporting gaining jobs in new media or communication technology within 5 years and at least 75% reporting satisfaction with our major's performance in preparing them for a job in new media or communication technology.
 - *Time line:* We will continue to monitor responses to the student exit survey and our alumni survey on an annual basis. The results from the alumni survey will not be useful for assessing our revised major for several years (i.e., once students who have completed the revised major have graduated); however, the data we collect in the coming years can be used as a benchmark against which we can compare the data gathered in later years. In addition, in the next 1-2 years, we will explore the use of direct methods (e.g., exam questions in COMM 450 and COMM 650) and consider their utility as supplements to the student exit survey and alumni survey.
 - *Use of assessment results:* The results of the assessment will be shared with the faculty at regular faculty meetings in the School of Communication. When ratings fall below our criteria, we will discuss whether and how changes to our methods of assessment, our instructional techniques, or our curriculum will be made.

4. Relationship to Other Programs/Benchmarking

- *Current major and minor programs:* We currently have two majors: Communication and Journalism. The proposed revision is to one of the focus areas within the Communication major only. This revision will have no effect on the other focus areas within Communication major or on the Journalism major. In addition, we have 5 minors in our School, including a minor in Communication Technology. The requirements for this minor will remain the same (1 required course and 4 electives); however, the offerings will change as we revise and add courses.
- *Overlaps with other programs/departments:* As noted in #2 above, although there are courses throughout the university that are relevant to this new focus area (which we intend to include in our curriculum), none of them allow students to systematically pursue an education intended to propel them into a career in HCI or to develop skills that will allow them to bridge the worlds of technology and management.

- *Cooperative agreements:* None
- *Articulation arrangements:* None
- *Consultants/Advisory committees:* Numerous groups of relevant faculty, staff, and students from the School of Communication have met during the past year to draft this major. We have also held meetings or been in email correspondence with representatives from Computer Science and Engineering, IIVCD, AACAD, Psychology, and Business.
- *Previous submissions:* No
- *Where students will be drawn from:* We expect the majority of our students to come from within the university. We expect that current communication majors focusing in Communication Technology will remain in the revised focus area. We also expect to see about a 10% increase in the number of students within the university electing the new focus area. In addition, we expect a slight increase in the numbers of students electing the revised focus area from outside the university as students realize the benefits of our unique interdisciplinary focus area.

5. Student Enrollment

At any given time, there are approximately 90 students in the current communication technology focus area. We expect a modest increase (10%) in student enrollment; however we will continue to use enrollment management whereby we can maintain a desirable student population via student applications to the major.

6. Curricular Requirements

- *Courses that constitute the requirements:* See Appendix A (new or revised courses are in italics). See Appendix B for a summary of the proposed course changes.
- *Minimum number of credits required for completion of major:* 62-65 (15 for the premajor, 47-50 for the major, depending on which courses are selected).
- *Average number of credits expected for a student at completion of major:* 62-65
- *Sample four-year student plan with average number of credits take per quarter:* See Appendix C.
- *Number of credits required from other departments:* 5 hours from Statistics to complete one of three required courses in the Communication major's premajor.
- *Number of credits typical student might take as electives in other depts.:* 5-18
- *Other major requirements:* None.
- *Accreditation seeking:* No
- *Number and qualifications of faculty:* 34 tenure-track or tenured faculty.
- *Existing facilities and equipment.* The School of Communication recently completed major renovations to several spaces in both Derby Hall and the Journalism Building. These spaces feature state-of-the-art features and software that will be used in the instruction of many of our courses, including those in the Communication Technology and New Media area. In addition, these spaces will facilitate cutting-edge research in this area.

For example, the new Gaming Instructional and Research Lab (Journalism 347) features 2 HCI suites with display and gaming consoles, 4 game interaction clusters with gaming console or computer capability, a teaching podium with smart board and computer presentation capability, and a digital projection system. In 339B of the Journalism Building, there are 5 Individual HIC Rooms each containing a Windows XP computer, closed-circuit camera and video playback screen, and Empirisoft DirectRT and MediaLab software. The control center in this room includes 7 DVD playback units, 13 DVD recording units, and laboratory monitoring equipment. And, the survey room, which is also a part of this suite, contains 6 carrels and a closed-circuit camera with 2 microphones. In Journalism 342, the Communication Methods Lab, we have 32 seats with 32 Windows XP internet connected computers, a digital projector, audio system, ELMO video overhead, a VHS VCR, Microsoft Office 2007, 20 licenses of MPlus statistical software, and 32 licenses of SPSS and AMOS statistical software. Finally, our multimedia classrooms feature the hardware and software to allow our Communication Technology and New Media students to optimize their learning, such as Adobe Creative Suite 4 Web Standard, Empirisoft Direct RT and MediaLab software.

- *Additional university resources required:* None
- *Major description in college bulletin:* Same as previous description

Appendix B
Proposed New Course Requests and Course Changes
for Revised New Media and Communication Technology Focus Area

Current Course Name and Number	Requested changes
COMM 650: Investigating Communication through Communication Technology	Name: Evaluation and Usability Testing Prereq: COMM 450
COMM 657: Technology of Communication	Name: Understanding Communication Networks
COMM 611: Communication and Multimedia	Name: Effective Communication for the Web Prereq: Comm 311 or equivalent
	New course: COMM 450: Principles of Human-Computer Interaction

Sample 4 year curriculum plan for New Media and Communication Technology

Autumn Winter Spring Summer

ENGL 110	5	Math B *	5	Stat 135 or 145	5		
COMM 101	5	COMM 200	5	Visual & Perform Arts	5		
For Lang. 102 *	5	For. Lang. 103	5	For. Lang. 104	5		
SBS COL 100	1						
	16		15		15		

* based on placement exam

COMM 240	5	COMM 450	5	COMM 367	5		
Nat Sci	5	Nat Sci	5	History	5		
History	5	Second Writing/US divs	5	Minor course	5		
	15		15		15		

COMM 311	5	CS&E 201	5	COMM 513	5		
Nat Sci	5	COMM 650	5	Literature/Intl' Issues	5		
Minor course	5	Minor course	5	Breadth course	5		
	15		15		15		

CS&E 203	4	COMM 654	5	Issues of C.W.	5		
COMM 657	5	Social Sci	5	Minor course	5		
Minor course	5	Breadth/Intl' Issues	5	Elective	5		
Elective	1						
	15		15		15		

TRANSMITTAL HISTORY FOR
COMMUNICATION MAJOR REVISION (TECHNOLOGY FOCUS AREA)

CCI Social, Behavioral, Biological, Mathematical and Physical Sciences Subcommittee

Draft Minutes

Monday, April 19, 2010

3:30 PM- 5:00 PM

1. Proposal for Revision of the Communication Technology Focus Area in the Communication Major
 - One track in the major is being revised.
 - The changes are designed to give career focus to students as far as human-technology interface and technology management are concerned.
 - The revision of the focus area is accompanied by the creation of one new course and three course changes: Comm 450 "Principles of Human-Computer Interaction" is being created; Comm 611 "Communication and Multimedia" becomes "Effective Communication for the Web;" Comm 650 "Investigating Communication through Interactive Technologies" becomes "Evaluation and Usability Testing;" and Comm 657 "Technology of Communication" becomes "Understanding Communication Networks." The title changes are accompanied by substantive content changes.
 - The School of Communication is not changing the goals and objectives of the program. They are highlighting the technological aspect more.
 - Assessment: They will use indirect measures (student exit survey of graduating seniors and alumni survey). They will also consider direct methods.

Mummy, Cohen, **unanimously approved**