

EASTERN MICHIGAN UNIVERSITY  
DIVISION OF ACADEMIC AFFAIRS

**REQUEST FOR INCLUSION OF A COURSE IN THE  
GENERAL EDUCATION PROGRAM:  
EDUCATION FOR PARTICIPATION IN THE GLOBAL  
COMMUNITY**

**DEPARTMENT/SCHOOL:** School of Technology Studies

**COLLEGE:** Technology

**DEPARTMENT CONTACT:** David Gore

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Subject Code, Number, and Title: CMT 305 Communication Transmission Systems

2. Credit Hours 3

3. Course Description

This class will cover definitions of communication, transmission and system, and how all relate to what we do everyday. The student will examine source, encoder (transmitter), channel, and receiver functions in communication transmissions of all types. Emphasis will be placed on principles of line (wired) and air (wireless) communication, a study of various systems, and future developments in communication transmission systems.

4. This course is (check one):

an existing course with no revisions (need not go through the input system)

an existing course with revisions (attach this form to Request for Course Revision form)

a new course (attach this form to Request for New Course form)

Check the General Education requirement this course is intended to meet. If the course is to be proposed for more than one requirement, submit a separate form for each one.

**Effective Communication**

**Quantitative Reasoning (*QR designation*)**

**Writing Intensive (*WI designation*)**

**Perspectives on a Diverse World**

Global Awareness

U.S. Diversity

**Knowledge of the Disciplines**

Arts

Humanities

Science

Social Science

**Learning Beyond the Classroom (*LBC designation*)**

Self and Well Being

Community Service, Citizenship, and Leadership

Cultural and Academic Activities and Events

Career and Professional Development

International and Multicultural Experience

Undergraduate Research

6. Rationale. Provide a concise, clear, jargon-free explanation of why this is a General Education course and how it fits into this specific area of the program. (The rationale should explain to students why they are taking the course. It should address both why it is part of the General Education program and why it fits into the particular category.) This rationale should appear on the general course syllabus provided here and should be included in specific course syllabi given to students.

The style and type of writing in technical fields differs from the typical scholarly (term) paper. Technical documents require the author to have a working knowledge of technical systems that they convey in a clear and concise manner. Typically these documents are written for the lay public or management, both of whom may not have an understanding of technology. Graduates will need skills in written and oral communication to address the technology needs of the industries in which they will work, specifically, proposal writing, presentations, technical journal summaries, and research for the application of technologies to address a business problem.

CMT 305 Communication Transmission Systems is a writing intensive course designed to help students write and present effectively. The course teaches students to organize technical information in an effective, persuasive document – the proposal project. Students address the mechanics of writing and the professional writing standards of the communication technology field.

7. Clearly and concisely explain how this course meets each of the General Education outcomes for the requirement checked in number five (all outcomes should be addressed). To do this, (a) list the General Education outcomes for the requirement and explain how the course meets each outcome; and (b) explain, in general terms, the method(s) of evaluation to be used in the course and how these methods assess the degree to which students have met the General Education outcomes for this requirement.

*Develop and employ successful, flexible writing and reading strategies that support sustained inquiry in a discipline.*

The reading of, and reporting on, journal articles from the discipline instills in the students the importance of constantly keeping up to date on what is happening in the profession. The most current information in the discipline is found in the monthly trade journal publications, either in print or online. Students must get into a habit of reading these journals to stay abreast of the latest information and trends within the industry. In this course, students must summarize the articles in writing. Through these exercises, students learn to form their opinion and discuss applications of new technology and trends in the industry. This type of writing is applicable to various professional settings and gives students the skills and strategies to use in writing other documents, i.e. creating management reports, justifying purchase of new technology, technology needs assessment, etc.

*Use writing strategies that achieve the purpose(s) for writing and address the expectations of audience(s) within a disciplinary context.*

The development of the proposal from the RPF forces students to learn how to write a significant document that they will be expected to know how to create in the workplace. The body, manufacturer and product summary, corporate profile, and executive summary are all different styles of writing that each student in the discipline needs to have a mastery of to be successful in the workplace. These “milestone” sections comprise the proposal document. The audience for this type of written document would be upper level management, or a decision team consisting of management and technical professionals. Knowledge of the audience comes from two sources: the instructor and invited industry professionals who come to class for a panel discussion regarding their role in the proposal process. The instructor(s) brief the students on make-up of the RFP review team/panel. The outside industry professionals provide information about the proposal process from their vantage point. This gives the students awareness from a ‘real-world’ perspective and validates the process for them. Students are provided with proposals from previous classes and actual proposals from business and industry (provided by professionals from the industry and/or the program advisory committee).

The assignment is worth 150 points total, 120 points possible for the written portion and 30 points for the presentation.

Proposal Project Grading Rubric		
Presentation: Group members participated/Introduced as part of the company	<b>5</b>	
Presentation: Visual aids supported proposal presentation	<b>10</b>	
Presentation: Focus of the proposal presentation - Product - Services - Training	<b>15</b>	
Proposal: Format, grammar, organization	<b>20</b>	
Proposal: Selection/description of manufacturer	<b>25</b>	
Proposal: Vendor company image, description, services	<b>25</b>	

Proposal: Inclusion of required documents and forms	<b>25</b>	
Proposal: Executive summary, pricing, training	<b>25</b>	

*Formulate research questions and employ strategies for researching and responding to those questions*

The research report is a more traditional scholarly paper, but must be on a topic relevant to the communication technology industry. The students choose a topic that must be approved by the instructor prior to beginning the written assignment. It must be 7 – 8 pages, not including a bibliography/reference page. The paper should include a minimum of 5 resources, not all from the same source (e.g. not 5 different articles from *Telephony Today*). Students are expected to adhere to a style manual. APA is preferred in most technology writing and strongly encouraged for this assignment. APA examples sheet are supplied as handouts and reviewed during class. Research techniques and writing are reviewed prior to the assignment, and faculty is available for review and feedback as the paper is being written. Research techniques discussed include: historical review, case studies and implementation of technology, and technical overview and application. Any combination of these techniques might be referenced as part of the review/summary of the literature portion of the paper. Evaluation of source legitimacy, e.g. is the web resource from a legitimate publishing concern or vendor or is it simply a blog or individual's personal information site, is discussed in class. Students, as part of this assignment, are given the grading criteria (below) and asked to review one paper each. Based on peer recommendations, the author can then make suggested revisions and resubmit the assignment for a final grade.

The paper will be worth 100 points and will be graded on the following criteria:

Research Paper Grading Rubric		
Problem Issue or Statement	<b>10</b>	
Appropriate Literature - Background documents - Current research for technology	<b>15</b>	
Review/Summary of Literature - Development of topic background - Description of technology - Current uses of technology	<b>30</b>	
Conclusion - Opinions - Application of technology - Critique of applications of technology	<b>30</b>	
Scholarly style/organization	<b>10</b>	
Grammar	<b>5</b>	

*Use discipline-specific genres to communicate information*

Teams will be required to present their proposal to the potential client (faculty evaluation team) in front of the entire class. The presentation should include a visual component

(e.g. PowerPoint presentation) with handouts for the client and observers. This written and verbal skill set is critical for students entering into a technology field that will lead most of them to mid-management jobs within three to five years of graduation. At the conclusion of the oral presentations each group is given general feedback on their written proposal, as well as their presentation. This is provided for the entire class as a learning opportunity so that students may see the evaluation criteria were applied to all projects, in a general manner.

Students provide peer review on various sections of the proposal and must also collaborate to synthesize sections, written by different individuals, into one finished, cohesive document. Students will be required to submit “milestone” assignments throughout the course to help them break the larger project into smaller pieces and give them a starting point for the assignment. Instructor feedback will be provided at these points to ensure students are on the right track. Revisions, rewrites and proposal project time management are all covered with respect to the writing process. Additionally, industry professionals are invited to speak to the class in a panel format. Students are able to ask questions regarding the proposal as well as how this project reflects the real world business process.

Lectures and supplemental handouts are used to support the preparation of the proposal presentation, most typically PowerPoint in the business setting today. Preparing (writing) technical information for a PowerPoint presentation to a general, often non-technical, management level audience is key to a successful presentation. The visual aspects of the presentation are also covered to insure that students fully understand that to be effective communication, information must be both well written and visually appealing.

*Understand conventions for communicating, disseminating, and interpreting information within a discipline*

The finished proposal and the presentation are the chief means by which this outcome is reached. Students will have to analyze the information necessary to respond to the proposal, assimilate the information available and form a proposed solution, prepare the written document in manner acceptable within the field (in other words, in a manner that demonstrates knowledge of disciplinary writing conventions), and prepare and deliver the verbal presentation, also in a manner that demonstrates knowledge of disciplinary genre and writing conventions. The culmination of the semester project achieves this course outcome.

Writing Assessment. Students are provided a rubric for the research paper assessment. The article abstracts are graded based on a student’s ability to summarize a journal article and articulate their opinion or the application of what they read. The proposal assignment is broken down into milestone segments and each is evaluated and returned to the student for incorporation into the final document. The body, manufacturer and product summary, corporate profile, and executive summary are all different styles of writing that each student in the discipline needs to have a mastery of to be successful in the workplace. These “milestone” sections comprise the proposal document.

8. Attach a syllabus (1-inch margins and 10-12 pt. font). The syllabus must include the rationale from #6 above and clearly reflect the outcomes and methods of evaluation detailed in #7 above.

**Please submit all materials in electronic form.**

## **Action of the Department/College**

### **1. Department**

Vote of department faculty: For \_\_\_\_\_ Against \_\_\_\_\_  
Abstentions \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Department Head

Date

### **2. College**

\_\_\_\_\_

\_\_\_\_\_

College Dean

Date

## **Action of General Education Advisory Committee**

Vote of General Education Committee: For \_\_\_\_\_ Against \_\_\_\_\_  
Abstentions \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Chairperson, General Education Advisory Committee

Date

## **Approval**

\_\_\_\_\_

\_\_\_\_\_

Associate Vice-President for Undergraduate Studies and Curriculum

Date

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Request for Approval of a General Education Course (continued)