

## COMPUTER APPLICATIONS & TECHNOLOGY, BUSINESS, & SOCIETY

*Your windows in the College to the worlds of  
Technology & Business*



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**CAPP IS OPEN TO STUDENTS IN ALL  
COLLEGES**

COURSE#	NAME	INSTRUCTOR	TIME	DAY	REQUIREMENT
CAPP 20505/6	Intro to Computer Systems	Berzai	8:30-9:20	MWF	Application
CAPP 23307	La Telenovela	Barry/Mangione-Lora	9:30-10:45	TR	Application
CAPP 30350	Visual Basic	Irniger	5:10-6:25	MW	Programming
CAPP 30515	Systems Analysis and Design	Berzai	9:35-10:25	MWF	Application
CAPP 30521	E-Business Strategies	Coughlin	10:15-11:30	MW	Application
CAPP 30523	Applied Multimedia Technology	Clark	1:30-2:45	MW	Application
CAPP 40150	Current Trends in Computer Appl.	Berzai	10:40-11:30	MWF	Computer Ethics
CAPP 40210	The Internet & Society	Rose	11:00-12:15	TR	Tech. & Society
CAPP 40545	Computer in Psychology(psy)	Crowell	3:30-4:45	TR	Application
CAPP 40546	Practicum in Robotics	Crowell	2:00-3:15	TR	Application
CAPP 40550	Digital 3-D(art)	Elwell	8:30-10:25	MWF	Application
CAPP 40553	Music Through Technology(mus)	Dye	11:00-12:15	TR	Application
CAPP 40557	Advanced Enterprise Applications	Miller	11:45-1:00	MW	Application
CAPP 45565	Internship 01	Berzai	TBA	TBA	TBD
CAPP 45567	CAPP/TBS Comm. Serv. Intern. 02	Crowell	TBA	TBA	TBD
CAPP 47567	Special Studies 01	Berzai	TBA	TBA	TBD
CAPP 47567	Special Studies 04	Villano	TBA	TBA	TBD

### 45565 02 CAPP/TBS Community Service Internship

This internship was created to allow an interested CAPP/TBS student to lend his or her skills and talents to a worthy cause in our local community.

### 47567 01 Special Studies

This course involves an independent study development or other project that requires completion of a significant body of work combining technology in some way with an academically acceptable content knowledge area or discipline, such as a student's primary major. Enrollment in this course requires approval of a written proposal outlining the specific details of the proposed project. For guidelines on the required proposal and approval process see the CAPP website.

### 47567 04 Special Studies

The purpose of this course is to provide students with experience in various aspects of video game development including level design, implementation, testing and deployment. The development environment will be the Half-Life 2 video game modding engine and its associated software tools. Additional third-party (and often free) utilities may also be necessary. Students will work on their own or in teams on agreed upon areas of interest.

## Technology Related Ethics

### 40150 Current Trends in Computer Applications

The Current Trends course allows the students to think about and discuss issues openly that pertain to computer ethics, business ethics, and some social ethical issues. We start out by having an understanding of the distinction between the terms Moral and Ethical. The class works through the generally accepted theories for resolving moral and ethical conflicts. These are egoism, natural law, utilitarianism, and respect for persons. We also discuss the reasons businesses exist and what they think their responsibility toward society is now and how it might change in the future. The students also debate several business ethical issues. In the area of Information Technology, there is discussion about what the student sees as right or wrong, ethical or not ethical in the many issues of discussion that are presented. CAPP/TBS Seniors Only.

## Technology and Society

### 40210 The Internet and Society

This course will spend the semester studying the impact the World Wide Web has had on several key areas of our society, including communications, commerce, marketing, productivity, education, collaboration, and our sense of community. Through a combination of discussion, group presentation, guest lectures, and out of class research, students will be exposed to some of the profound effects this medium has had on our culture. In spite of the bursting of the dot com bubble, the Web has left all of the above mentioned areas substantially changed, many for the long term. The positive and negative forces brought on by this technology must be recognized, studied, and dealt with if we are to truly embrace the momentous opportunities brought about by the World Wide Web.

## CAPP SUPPLEMENTARY MAJOR REQUIREMENTS

### CAPP REQUIRED COURSES:\*

Programming Languages	6 hrs
Technology Applications	12 hrs
Technology Related Ethics	3 hrs
Technology & Society	3 hrs
Total Needed:	24 hrs

## TBS COMPLEMENTARY SKILLS PROGRAM REQUIREMENTS

### TBS REQUIRED COURSES:\*

Programming Languages	3 hrs
Technology Applications	3 hrs
Technology Related Ethics	3 hrs
Business Knowledge	3 hrs
Technology & Society	3 hrs
Total Needed:	15 hrs

## Programming Language

### 30350 Visual Basic Programming

The course will investigate object-oriented data processing concepts using Microsoft's Visual Basic Programming Language. Technology and technique will be combined to explore the object-oriented paradigm. Object-oriented will be compared to traditional procedural paradigms wherever appropriate.

## Technology Applications

### 20505/20506 Introduction to Computer Systems

As an introduction to Information Processing, this is a literacy course which explains computer systems including hardware, software, systems analysis and other related topics. The class learns some computer programming, logic, design and documentation using the BASIC language. Students also work in teams to learn a particular phase of the IS environment, work with multimedia software and make presentations to the class.

### 20507 La Telenovela: History, Culture, Product

The aim of this course is to explore the genre of the telenovela. Students will sharpen oral and written language skills through exposure to authentic telenovelas from Spain and Latin America, and through the creation and production of their own telenovela. They will be able to learn the idiosyncrasies of Hispanic culture as well as popular expressions. Writing and oral production will be stressed as the students write, direct, act, tape and edit a telenovela. During this process students will learn basic videography and on-line video and audio editing techniques.

### 30515 Systems Analysis & Design

Administered in two major segments, this course first exposes students to the full scope of analyzing and designing computer systems by covering problem definition, data collection, documentation of existing systems and definition of new systems requirements. We use the methodology of Systems Development Life Cycle (SDLC). The second segment deals first with students working on genuine business projects. The second phase of this segment gets into object-oriented systems analysis which is a new concept in systems analysis and design.

### 30521 E-Business Strategies

E-business employs the use of the Internet and the Web to transact business, creating electronic markets where prices are transparent, markets are global, and trading is highly efficient. E-business has a direct impact on a firm's relationship with suppliers, customers, competitors, and partners as well as the method it uses to advertise, sell, and use products. In this course, students will analyze the business models and strategies of online companies, explore failed e-business ventures, understand the strategic, financial, marketing, and organizational challenges facing e-business firms, and consider the societal impact of e-business development.

### 30523. Applied Multimedia Technology

The goal of this course is to explore ways multimedia can be used to communicate information and solve problems. Students use a variety of tools, including Adobe Flash, to complete projects in the areas of animation, audio, image editing, and scripting. They also evaluate existing media for content, aesthetics, functionality, and usability. Students will often begin to learn material before class by completing tutorials. Follow-up activities in class then apply the concepts without step-by-step instruction. The course also equips students with strategies for enhancing their skills after the semester ends.

### 40545 Computers in Psychology Research and Education (Psy)

This course and its counterpart in Psychology (PSY 388) are project-oriented. It is not an introductory course on computer applications. Students need to already have (or learn during the semester) the skills needed to complete whatever project is defined. Generally, projects are applications or systems that fit into the broad spectrum of the instructor's interests, which students can determine by consulting the instructor's web page (<http://www.nd.edu/~ccrowell>). New projects are defined each semester. Some recent projects have involved:

1. Developing a multimedia instructional system on management and coaching including graphics, video and audio files.
2. Creating a visual basic application to administer and collect survey data.
3. Exploring and comparing the capabilities of online teaching tools.
4. Developing a web site for student advising in the Psychology Department.
5. Completing a database application in Microsoft Access for tracking and reporting manager coaching sessions.

Students are expected to plan and develop a functional application, which will take as much or more time as other regular three credit courses.

### 40546 Practicum in Robotics

This course will allow students to work with the Nao humanoid robot platform. Students will learn about how to control the sensory and motor capabilities of the robot to produce specific sequences of robot behaviors and/or to allow the robot to respond to particular inputs from the external environment. Students will work with the instructors to identify the specific behaviors and response sequences to be created. Permission is required.

### CAPP 40557 Advanced Enterprise Applications

This course will provide experience with a full range of applications which are employed in the 21st century organizations including enterprise business software, smartphone apps, collaborative tools such as Share point, Wiki, Blog sites and tools for integration with Facebook, Twitter and Google tools. The course will also provide understanding of and experience with Cloud Computing and Web Services which are providing a new paradigm for deployment of applications without the traditional data center. The course will focus on how all of these packaged and custom software can be integrated in the modern organization to meet organizational goals.

### 40550 Digital 3-D Modeling (Design)

This is an introductory course to Alias Wavefront Studio Software. The focus of this class is to learn how to use the software to generate 3D virtual models with an emphasis on industrial design concerns as well as creating manufacturable data for rapid prototyping. The class will be devoted to learning tools, interface, modeling and rendering methods. This will be achieved by completing specific assignments and tutorials. The final assignment will be to virtually model and render a product or scene from a concurrent class or personal interest

### 40553 Music Through Technology (Music)

Music through Technology is a lecture/lab course open primarily to CAPP majors and musicians, with consideration of other interested students. Lecture topics include the historical evolution of technology in music, surveying the influence that technology had on the music world, from a creative standpoint to the accessibility and distribution of music to the masses. Other examples of technology's influence in music may include the development of multi-track recording on popular music, synthesizer and midi technology, technology's applications for musical composition, and the adaptation of CD and mp3 formats to musical performers. The historical influence of technology is an illuminating foundation to current developments in the creative processes of music. Lab topics cover an introduction to current music technology including digital audio recording and editing, midi technology (sound and notation), and the digital management and distribution of music. Students will experience all of these technologies on an introductory level, but focus their interests on a technology-based final project to develop and display their acquired skills.

### 45565 01 Internship

This encompasses working with various civic, public and or private organizations using acquired computer applications knowledge and skills. Credit is given only if work is done in the Information Systems area of an organization.