

University of Colorado, Boulder
Division of Continuing Education
Spring 1986

Schedule of Courses, Seminars, and Workshops

University of Colorado, Boulder

Division of Continuing Education

Boulder Evening Credit Courses

These courses are designed to encourage the working person (home, office, other) to begin, continue, or restart University-level work. They are offered during the early evening hours, carry full University credit, are transferable and are taught by qualified and approved instructors. Any person with a high school diploma or GED equivalent can enroll and there are no prerequisites. Check the following pages for course descriptions or call 492-5148 for information.

Center for Advanced Training in Engineering and Computer Science (CATECS)

The Center for Advanced Training in Engineering and Computer Science (CATECS) provides graduate-level courses for off-campus students either televised live from the campus classroom or on videotape to your company or agency. Call 492-6331 for information.

Certificate in Commercial Design

Are you interested in the growing field of commercial design? Are you involved in some aspect of illustration, art, or publishing, and are you ready to expand your expertise? Whether you are a new or continuing student in the field, this series of evening or weekend workshops that leads to a Certificate in Commercial Design may be what you need for your professional development. Check the following pages for course descriptions or call 492-5148 for information.

Certificate in Computer Applications

The increasing use of computers and electronic information systems in business and government has created a growing advantage in today's professional environments for those knowledgeable in computer applications. This Certificate program has been designed to create awareness and skills vital in our information age. Popular, widespread applications are emphasized for the greatest practical benefit. Computer graphics components vastly enhance computer use as a creative, efficient tool. The curriculum is constantly upgraded to meet personal and professional needs. Check the following pages for course descriptions or call 492-5148 for more information.

Certificate in Multi-Image and Multi-Media Communications

In today's increasingly media-conscious business and arts environment, using only one medium to tell a story, create an impression, or sell a product for yourself or a client is commonly not enough. Multi-Image Multi-Media productions are currently being developed and used by many companies and industries in training, motivating and educating employees and selling products and services. Check the following pages for information or call 492-5148 for information.

Cooperative Real Estate Certificate Program

The Real Estate Certificate Program is a statewide program in real estate education administered by the University of Colorado and sponsored by the Colorado Real Estate Commission and Colorado Association of Realtors. It is provided for persons in real estate brokerage and allied fields in the real estate industry, for persons contemplating entering the industry, or for those generally interested. See the following pages for more specific information or call 492-8666.

Independent Study Program

The Independent Study Program provides opportunities to students and others in the community to achieve skills and knowledge at their own pace. Whether University credit hours, certain profes-

sional license requirements, or various self-enrichment skills are desired, this program might offer what is needed. Courses of study include Individualized Instruction, and Independent Study through Correspondence, as well as Childhood Education certificate programs and a Paralegal Education series. Call 492-8756 for information and a catalogue.

Management Development Certificate Program

This certificate program has been designed to develop management skills for persons aspiring to management positions or those seeking to increase their managerial skill. All courses are conducted evenings and weekends to conform to a busy person's schedule. Courses are now offered in Longmont and Boulder. Check the following pages for course descriptions or call 492-5148.

Personal Enrichment Adult Courses (PEAC)

A wide range of noncredit courses is offered each semester to the adult community. Topics cover vocational and avocational interests from business to outdoor pursuits. Course length is adjusted to suit the subject matter, so times and dates are listed with each individual course. Whether to satisfy curiosity, help meet some career or lifestyle goals, or expand your artistic skills, some of these courses will be of keen interest to you. Check the following pages for course descriptions or call 492-5148.

SAVE (Campus Courses on a space available basis)

Fall and Spring semester, the University's Division of Continuing Education offers the opportunity for nondegree students to enroll in regular daytime Boulder campus courses, provided space is available as determined by the academic departments. Spring 1986 SAVE registration will be conducted Thursday and Friday, January 23 and 24, 9 a.m. to 4 p.m., at the University Memorial Center Ballroom (UMC). Please call 492-5148 for additional information on eligibility, tuition, fees, etc.

Special Noncredit Programs

The Division of Continuing Education also develops and produces high-quality results-oriented training seminars and executive briefings for business and industry, government agencies, and service organizations. Programs cover a broad range of executive, secretarial, managerial, and technical areas. Team discounts, CEUs (Continuing Education Units), and tailored in-company presentations are available. Call 492-8666 for registration information.

Vacation College

Vacation College (January 2-17, 1986) provides an opportunity for you to earn University academic credit in a condensed time period. Scheduled during the winter break period, classes meet three hours a day for 14 days. Because of the intense format students are limited to one course during the session.

Video-Teleconference Programs

The Division is very pleased about its continuation of timely and relevant programs presented by satellite. This electronic means of receiving and presenting high quality programs is a new venture at the University of Colorado and enables us to make available a broader range of Continuing Education activities. Presenting programs by this means is becoming popular and well accepted. For more information please check the following pages for programs being offered or call 492-8666.



Table of Contents

Boulder Evening Credit Classes	4
Management Development Certificate Program	
Boulder	17
Longmont	22
Certificate in Computer Applications	23
Certificate in Commercial Design	34
Personal Enrichment Adult Courses (PEAC)	37
Special Noncredit	54
Videoteleconferencing	57
Certificate in Multi-Image/Multi-Media Communications	58
Real Estate Certificate Program	61
Independent Study Programs	62
CATECS	64
Registration Information and Noncredit/Certificate Form	65
Credit Registration Form	67
Campus Map	Insert

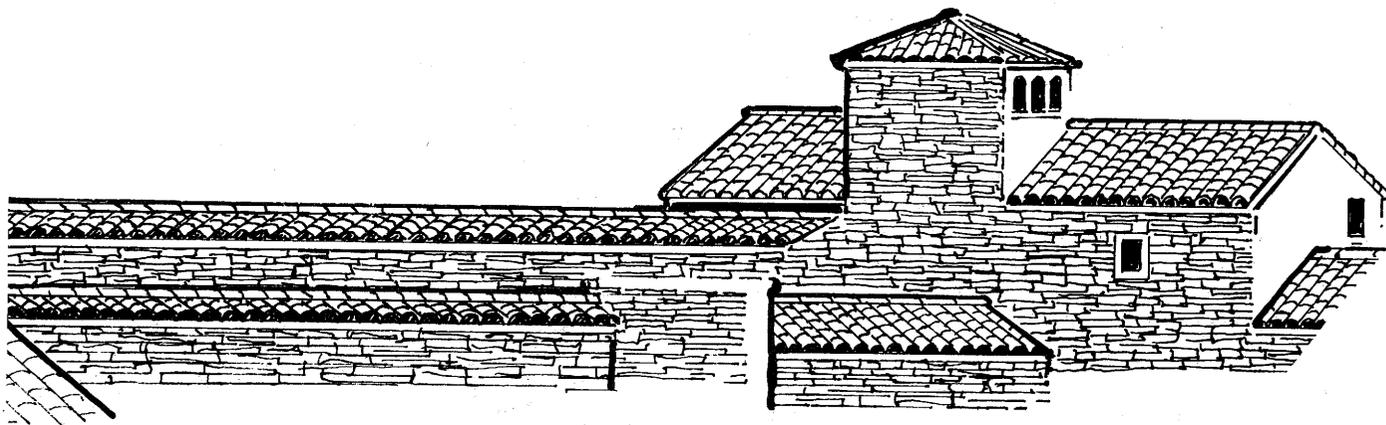


Table of Contents

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Boulder Evening Credit Classes

The Division of Continuing Education will continue the evening credit program designed specifically for you the working person (home, office, other) or adult who cannot attend classes during daytime hours.

Since many of you have suggested that credit courses be scheduled in a more concentrated format, we are offering you an opportunity to earn credit in a shortened time period. We have scheduled two short sessions during the semester, and you will be required to attend classes twice a week for three hours each night. In addition, the regular Spring semester term classes will be offered as usual.

Boulder Evening classes carry full undergraduate University credit and are taught by qualified and approved instructors. Credit earned in these classes is automatically shown on an official CU transcript. You will be registering as a special student unless you have previously been admitted to campus as a degree student.

You should be aware that each school or college has established a maximum number of credit hours that will be accepted as transfer credit applied towards graduation. After you have accumulated the maximum number of credit hours acceptable (usually 12), you will need to apply for admission as a degree student in a school or college.

COUNSELING SERVICES: Academic and career counseling services are available free of charge for anyone enrolling in a Boulder Evening Credit course or anyone who is considering enrollment. Receive help in planning your program, deciding on a major, or setting personal goals. Vocational interest testing is also available (for a small fee) to help students clarify career goals and objectives. If you are unsure about your academic or career direction, call 492-5145 for an appointment.

ELIGIBILITY: Any person who has a high school diploma or GED certificate may enroll. No previous college experience is necessary to register for these classes. Persons on University of Colorado financial stops or academic suspension from the College of Engineering and Applied Science or the College of Business may not enroll.

RESIDENCY: To be eligible for in-state classification, applicants, or their parents (if the applicant is an unemancipated minor), must maintain legal residence in Colorado for the 12 months preceding the term for which in-state status is claimed. Students who will not be 22 years of age by the first day of class are assumed to be unemancipated minors and to have the same legal residence as their parents. Such students whose parents do not live in Colorado must petition to prove emancipated status for the preceding year. Applicants may be required to submit evidence substantiating their claim of in-state eligibility. Applicants who feel their initial classification is incorrect may address inquiries to the tuition classification coordinator.

TUITION: Resident tuition is \$54 per credit hour. Tuition for some courses is slightly higher because of equipment or materials fees. Nonresidents may take either one three-

hour course for the Full Term or one three-hour course for Session I and one three-hour course for Session II. A nonresident may not enroll for a class for the full term and a class in either of the sessions for resident tuition only. Therefore, for more than one three-hour class, nonresidents must pay the out-of-state fee of \$2,835. For that tuition, a nonresident student may enroll in any of the other credit courses offered through the Division of Continuing Education program, i.e., Independent Study, Individualized Instruction, or Applied Music. Cash, check, MasterCard, or VISA is accepted. Tuition is due and payable at time of registration. **NO DEFERRED PAYMENT PLAN IS AVAILABLE.**

Submission of the registration materials obligates you to pay for the full amount of tuition for the semester. Refer to refund schedule for information.

HOW TO ENROLL: Advance registration is necessary and can be accomplished in person at 1221 University Avenue, Boulder, Monday through Thursday 9 a.m. to 6 p.m. and Friday, 9 a.m. to 5 p.m., beginning December 30, or at the UMC Ballroom 9 a.m. to 4 p.m. on January 23 and 24. No registrations will be accepted after January 31 for Session I, February 7 for Full Term, and April 4 for Session II. Call 492-5148 for information.

DROP PROCEDURES: If you need to drop a credit course for which you are enrolled, you must come to the Division of Continuing Education and complete a drop voucher. If you fail to do this, you will not be officially withdrawn (dropped), you will not receive any refund that may be due you, and you may receive an administrative grade of "F."

NON-ATTENDANCE AT CLASS DOES NOT CONSTITUTE WITHDRAWAL OR REFUNDS DUE.

PASS/FAIL OPTION: This option is not available for Boulder Evening credit courses.



VETERANS BENEFITS: If you are eligible for veterans benefits and have applied for admission to a degree program at the University of Colorado, you may enroll in these evening classes and apply the credit toward a degree. Please contact the Veterans Affairs Office in Willard Administrative Center or call 492-7322 to determine your eligibility and benefits.

PRIVILEGES: Boulder Evening credit students are eligible to join the Recreation Center as affiliated students for \$40 per semester, payable to the Recreation Center cashier. Students may purchase Wardenburg Student Health Services for \$65 payable to the Wardenburg cashier. A hospitalization plan is available for Continuing Education students for an additional fee of \$88. Total library services are available at no additional charge. Photographic IDs for Division of Continuing Education students are available for \$6 (cash, checks with check guarantee card only, VISA, MasterCard) beginning January 27, 11:00 a.m. to 4:00 p.m. at Stadium 129 between Gates 4 and 5.

Students must present Boulder Evening registration receipts to qualify for any of the above privileges.

FINANCIAL AID: Limited tuition assistance is available to eligible credit students through a grant from the Colorado Commission on Higher Education. Applications may be obtained in the Office of Financial Aid, ENVD-2, 492-5091 and must be submitted no later than February 7, 1986 for Spring Semester consideration. Continuing Education programs do not qualify for other forms of aid, including Guaranteed Student Loans.

SPECIAL REGISTRATION FOR FACULTY AND STAFF: Faculty and staff of any University of Colorado campus can enroll in Boulder Evening credit courses on a space-available basis for one-half the regular tuition fee. Registration will begin January 27. Please bring a copy of PAF indicating at least a half-time appointment.

Spring Semester 1986 Academic Calendar

December 30	First day of registration at the Division of Continuing Education, 1221 University Avenue, 9-6 Monday through Thursday; 9-5 Friday.
January 23 & 24	Boulder Evening registration continues at the University Memorial Center Ballroom, 9 a.m. to 4 p.m.
January 27	Full Term and Session I classes begin. Late registration for all sessions at the Division of Continuing Education. FACULTY/STAFF registration for Boulder Evening classes on a space-available basis. 50% discount. Active PAF employment verification copy required.
January 31	LAST DAY TO REGISTER FOR SESSION I CLASSES.
February 7	LAST DAY TO REGISTER FOR FULL TERM CLASSES.
February 10	Instructor's signature required to drop Session I classes.*
February 17	Petition required to drop Session I classes.
February 24	Instructor's signature required to drop Full Term classes.
March 10	Petition required to drop Full Term classes.
March 13	Session I classes end.
March 24-28	Spring Break. No classes.
March 31	Session II classes begin. FACULTY/STAFF registration for Boulder Evening classes on a space-available basis. 50% discount. Active PAF employment verification copy required.
April 4	LAST DAY TO REGISTER FOR SESSION II CLASSES.
April 14	Instructor's signature required to drop Session II classes.*
April 21	Petition required to drop Session II classes.
May 8	Full Term classes end.
May 15	Session II classes end.

* This signature indicates you were doing passing work when you dropped the course.

Refund Schedule

FULL TERM

100% before 2nd class
60% after 2nd class and
through February 21
40% February 24 through March 7
NONE THEREAFTER

SESSION I

100% before 2nd class
60% after 2nd class and
through February 14
40% February 17 through February 21
NONE THEREAFTER

SESSION II

100% before 2nd class
60% after 2nd class and
through April 18
40% April 21 through April 25
NONE THEREAFTER

Boulder Evening Credit Classes Spring 1986 Schedule

Mon. Jan. 27	Tues. Jan. 28	Wed. March 12	Thurs. March 13		Mon. March 31	Tues. April 1	Wed. May 14	Thurs. May 15
Session I Mon. & Wed. classes begin Jan. 27 and end March 12				Spring Vacation Mar. 24 to Mar. 28	Session II Mon. & Wed. classes begin March 31 and end May 14			
Session I Tues. & Thurs. classes begin Jan. 28 and end March 13					No Classes	Session II Tues. & Thurs. classes begin April 1 and end May 15		
Full Semester Terms: Classes will begin on Jan. 27 and end on May 8 NO CLASSES WEEK OF SPRING BREAK FINAL EXAMS WILL BE GIVEN THE LAST DAY OF CLASS								

Full Term Classes by Starting Date

Monday Evening Courses, Begin January 27

Comm	426-3	7-10 p.m.	Hellems 229	Communication & Conflict
C.S.	120-3	6-7 p.m.	ECCR 0-36	Intro. to Programming I (Recitation)
Engl	120-3	7-10 p.m.	Hellems 247	Intro. to Fiction
	Section 301			
Geog	306-3	7-10 p.m.	Guggenheim 3	Maps and Mapping
Hist	258-3	7-10 p.m.	Business 354	History of Colorado
Jour	480-3	7-10 p.m.	Macky 102	Magazine Article Writing
Math	108-3	5:30-8:30 p.m.	ECCR 1-42	Calculus for Social Science & Business
Psy	430-3	6:30-9:30 p.m.	Biosciences E113	Abnormal Psychology
Soc	191-3	7-10 p.m.	Hellems 137	Contemporary Social Issues

Monday and Wednesday Evening Courses, Begin January 27

FA	100-2	7-10 p.m.	FA C175	Basic Drawing
FA	418-3	7-10 p.m.	FA N163	New Directions in Photography: Color
Math	101-3	7-8:30 p.m.	ECCR 1-40	College Algebra
Math	107-3	6-7:30 p.m.	ECCR 0-38	Mathematics for Social Science and Business

Monday and Thursday Evening Courses, Begin January 27

C.S.	120-3	7:15-8:45 p.m.	ECCR 0-36	Intro. to Programming I (Lecture)
Math	230-5	5:30-8 p.m.	ECCR 0-08	Analytic Geometry and Calculus II

Tuesday Evening Courses, Begin January 28

Anth	202-3	7-10 p.m.	Hellems 237	Intro. to Physical Anthropology II
Comm	203-3	6:30-9:30 p.m.	Hellems 141	Interpersonal Communication
Econ	202-3	5:30-8:30 p.m.	Business 301	Principles of Microeconomics
Educ	482-3	5-8 p.m.	ECCR 0-01	Workshop in Curricular and Instructional Development: Meeting the Needs of the Gifted and Talented Child
	Intro. to Fiction			
Engl	120-3	7-10 p.m.	Hellems 247	
	Section 302			
EPOB	122-3	7-10 p.m.	ECCR 0-36	General Biology II
Geol	104-3	7-10 p.m.	Guggenheim 2	Intro. to Geology II: Historical Geology for Nonmajors
Hist	142-3	7-10 p.m.	ECCR 0-08	History of England II
Jour	200-2	7-9 p.m.	Macky 3C	Writing for the Mass Media
PE	342-3	7-10 p.m.	ECCR 0-38	Nutrition and Health
P.Sc.	222-3	6-9 p.m.	Business 354	Intro. to International Relations
Psy	205-3	7-10 p.m.	Muenzinger D156	Intro. to Biopsychology
Psy	210-3	7-10 p.m.	Muenzinger D144	Statistics and Research Methods in Psychology
Psy	230-3	6:30-9:30 p.m.	Biosciences E113	Psychology of Adjustment

Tuesday and Thursday Evening Courses, Begin January 28

Math	099-3	3:30-5 p.m.	Business 208	Pre-College Mathematics
Span	102-5	6-8:30 p.m.	Hale 105	Beginning Spanish

Wednesday Evening Courses, Begin January 29

A&S	110-3	6:30-9:30 p.m.	Business 208	Advanced Expository Writing
Comm	231-3	6:30-9:30 p.m.	Hellems 137	Oral Competency
Engl	119-3	7-10 p.m.	Hellems 247	Intro. to Creative Writing
Engl	315-3	6-9 p.m.	ECCR 1-24	Report Writing
Hist	152-3	7-10 p.m.	ECCR 0-08	History of the U.S. Since 1865
Hist	442-3	7-10 p.m.	ECCR 1-07	Canadian History Since 1867
PSc	110-3	7-10 p.m.	Ketchum 234	The American Political System
Psy	264-3	7-10 p.m.	Biosciences E113	Child and Adolescent Psychology
Soc	495-3	7-10 p.m.	Hellems 181	Criminology

Thursday Evening Courses, Begin January 30

APAS	112-3	7-10 p.m.	ECCR 2-06	General Astronomy II
Comm	102-3	6:30-9:30 p.m.	Hellems 141	Intro. to Interpersonal & Small Group Communication
Econ	201-3	5:30-8:30 p.m.	Business 301	Principles of Macroeconomics
Educ	481-3	6:30-9:30 p.m.	ECCR 0-01	Special Topics: Integrative Learning
Engl	160-3	7-10 p.m.	Hellems 241	Intro. to American Writers
Geog	199-3	7-10 p.m.	Guggenheim 2	Intro. to Human Geography
Math	102-2	6:30-8:30 p.m.	ECCR 1-40	College Trigonometry
Psy	100-3	7-10 p.m.	Biosciences E113	General Psychology
Soc	119-3	6:30-9:30 p.m.	Ketchum 235	Deviance

Session I Classes by Starting Date**Monday and Wednesday Evening Courses, Begin January 27**

Anth	103-3	7-10 p.m.	Hellems 237	Principles of Anthropology I
Engl	140-3	7-10 p.m.	ECCR 1-03	Intro. to Poetry
PE	225-2	6-10 p.m.	ECCR 1-01	Advanced First Aid and Emergency Care

Tuesday and Thursday Evening Courses, Begin January 28

Educ	480-3	5-8 p.m.	Biosciences E130	Special Topics: Creative Learning Experiences and Resources (C.L.E.A.R.)
FA	376-2	6:30-9:30 p.m.	FA C1B 55	Jewelry Design: Form Emphasis in Metalsmithing
Geog	100-3	7-10 p.m.	Guggenheim 3	Environmental Systems: Climate and Vegetation
Phil	100-3	7-10 p.m.	Hellems 267	Intro. to Philosophy

Session II Classes by Starting Date**Monday and Wednesday Evening Courses, Begin March 31**

Anth	104-3	7-10 p.m.	Hellems 237	Principles of Anthropology II
Comm	102-3	7-10 p.m.	Ketchum 235	Intro. to Interpersonal and Small Group Communication
EPOB	210-3	7-10 p.m.	ECCR 0-09	Intro. to Wildlife Ecology and Conservation
FS	355-3	7-10 p.m.	Norlin 250	Producing the Feature Film
PE	225-2	6-10 p.m.	ECCR 1-01	Advanced First Aid and Emergency Care
PE	342-3	7-10 p.m.	ECCR 1-09	Nutrition and Health
Psy	100-3	7-10 p.m.	Muenzinger D156	General Psychology

Tuesday and Thursday Evening Courses, Begin April 1

Educ	480-3	5-8 p.m.	Biosciences E130	Special Topics: Creative Learning Experiences and Resources (C.L.E.A.R.)
FA	376-2	6:30-9:30 p.m.	FA C1B 55	Jewelry Design: Form Emphasis in Metalsmithing
Geog	101-3	7-10 p.m.	Guggenheim 3	Environmental Systems: Landforms and Soils
Hist	254-3	7-10 p.m.	ECCR 1-03	Topics in American History: U.S.-Soviet Relations Since 1917
Phil	102-3	7-10 p.m.	Hellems 267	Ethics
Soc	211-3	7-10 p.m.	Hellems 81	Intro. to Sociology

Important Information About Arts and Science Degree Requirements and How Boulder Evening Credit Courses Can Be Utilized to the Best Advantage

Every person pursuing a degree in Arts and Sciences must complete two two-semester course combinations in each of the following areas: Humanities, Social Science, and Natural Science. The course descriptions for Boulder Evening credit courses will indicate whether the course satisfies one of the 1985-86 course combination requirements as indicated on the College List. If there is no indication in the course description that a course can be combined with another to satisfy a specific requirement, you can use the credit as an elective. Remember, these credit courses carry full undergraduate University credit.

**Anthropology 103-3
Principles of Anthropology I**

Evolution of human beings and their culture from the beginnings through early metal ages. The course covers human evolution, human variations, prehistory, and the rise of early civilizations. When combined with Anth. 104, satisfies first year social sciences requirement.

Session I - Section 100: Mondays and Wednesdays, 7-10 p.m., Hellems 237. \$162.

**Anthropology 104-3
Principles of Anthropology II**

Survey of the world's major areas: culture and its major components such as subsistence, social organization, religion, and language. When combined with Anth. 103, satisfies first year social sciences requirement.

Session II - Section 200: Mondays and Wednesdays, 7-10 p.m., Hellems 237. \$162.

**Anthropology 202-3
Introduction to Physical Anthropology II**

Survey of the biological variability in living humans and geographic races. Explores human variation as a response to ecological, including nutritional, conditions through the use of quantitative and genetic analyses. When combined with Anth. 201, satisfies first year natural sciences requirement.

Full Term - Section 300: Tuesdays, 7-10 p.m., Hellems 237. \$162.

**Arts and Sciences 110-3
Advanced Expository Writing**

Development of more refined techniques of expository writing. Assists students with rhetorical skills and techniques with which to write articles and papers.

Full Term - Section 300: Wednesdays, 6:30-9:30 p.m., Business 208. \$162.

**FOR INFORMATION ABOUT THE
BOULDER EVENING CREDIT
PROGRAM PLEASE CALL 492-5148**

**APAS 112-3
General Astronomy II**

Principles of modern astronomy for nonscience majors, summarizing our present knowledge about the sun, stars, birth and death of stars, galaxies, and the structure and origins of the universe. When combined with APAS 111, satisfies first year natural sciences requirement. APAS 111 and 112 may be taken in either order.

Full Term - Section 300: Thursdays, 7-10 p.m., Engineering Center CR 2-06. \$162.

**Communication 102-3
Introduction to Interpersonal and
Small Group Communication**

An introductory course in human communication requiring no previous knowledge of communication. Its primary objectives are (1) to teach the concepts that comprise the discipline of communication, and (2) to improve students' skills as communicators in a variety of interpersonal, group, organizational, and public contexts. When combined with Comm. 203 or 215, satisfies first year social sciences requirement.

Full Term - Section 300: Thursdays, 6:30-9:30 p.m., Hellems 141. \$162.

Session II - Section 200: Mondays and Wednesdays, 7-10 p.m., Ketchum 235. \$162.

**Communication 203-3
Interpersonal Communication**

This course explores communication between people. It promotes self-awareness by understanding major communication concepts, stages of relationships, and communication skills. In particular, communication between the sexes in intimate, friendship, and professional relationships receives emphasis. Some skill areas studied are listening, conflict management, assertiveness, non-verbal, and self-disclosure. When combined with Comm. 102 or 215, satisfies first year social sciences requirement.

Full Term - Section 300: Tuesdays, 6:30-9:30 p.m., Hellems 141. \$162.



Communication 231-3 Oral Competency

Oral communication-developing competency will explore a variety of contexts, purposes, and styles of communication. Students will make a minimum of five presentations for critique-evaluation and be examined over course content. The primary aim is to find and develop the student's most effective style for different purposes and contexts. No prerequisites.

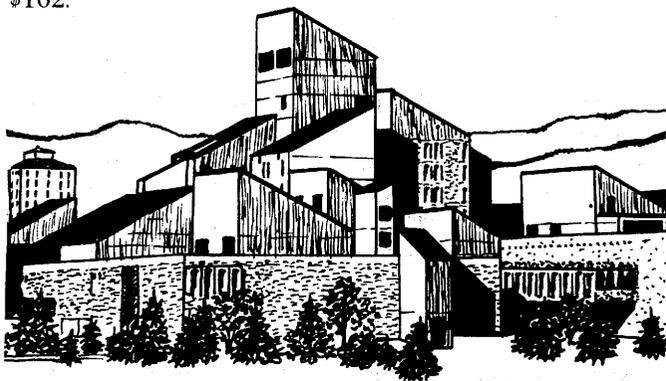
Full Term - Section 300: Wednesdays, 6:30-9:30 p.m., Hellems 137. \$162.

**ADVANCE REGISTRATION
NECESSARY
PAYMENT DUE AT TIME OF
REGISTRATION**

Communication 426-3 Communication and Conflict

This course will focus on theory of conflict management and negotiation. The specific areas addressed will be: attitudes towards conflict, styles of conflict, power, passive-hidden aggression, games, strategies, tactics, and goal setting. All students will assess their conflict style and role-plays of conflicts experienced by class members will be analyzed. When combined with Comm. 420, 421, 432, or 427, satisfies second year social sciences requirement.

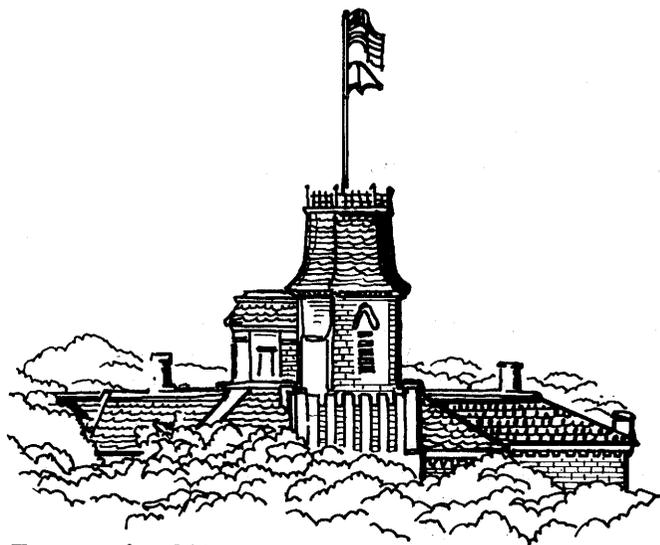
Full Term - Section 300: Mondays, 7-10 p.m., Hellems 229. \$162.



Computer Science 120-3 Introduction to Programming I

An introductory course in computer programming covering computer fundamentals, the elements of a structured programming language, and the basic techniques for designing algorithms to solve practical problems. The programming language PASCAL is used as a vehicle for expressing these concepts. Students are required to attend two lectures per week and the recitation. Since this is a rigorous laboratory course, students should plan to spend at least 10 additional hours per week at the Computing Center. Prerequisite: three years of high school mathematics including trigonometry and algebra.

Full Term - Section 300: Lecture: Mondays and Thursdays, 7:15-8:45 p.m., Recitation: Mondays, 6-7 p.m. Engineering Center CR 0-36. \$187.



Economics 201-3 Principles of Macroeconomics

An overview of the economy examining the flow of income and GNP as well as the factors determining the level of employment, income, money, credit, and prices. When combined with Econ. 202, satisfies first year social sciences requirement. Econ. 201 and 202 can be taken in either order.

Full Term - Section 300: Thursdays, 5:30-8:30 p.m., Business 301. \$162.

Economics 202-3 Principles of Microeconomics

The operation of the price system as a major organizer of the economy. Elementary theory, problems, and public policy of competition, monopoly, distribution of income, and international economic relations. When combined with Econ. 201, satisfies first year social sciences requirement. Econ. 202 and 201 can be taken in either order.

Full Term - Section 300: Tuesdays, 5:30-8:30 p.m., Business 301. \$162.

Education 480-3 Special Topics: Creative Learning Experiences and Resources (C.L.E.A.R.)

This experiential course is designed to help educators/counselors enhance their effectiveness and realize greater creative potentials for themselves and their students/clients. We will explore a variety of ways to activate right brain functioning through multi-sensory learning, creative problem solving techniques, and the expansion of creative imagination and humor. We will consider how creative learning experiences can enhance our daily lives — personally, academically, and professionally.

Session I - Section 100: Tuesdays and Thursdays, 5-8 p.m., Porter Biosciences E130. \$162.

Session II - Section 200: Tuesdays and Thursdays, 5-8 p.m., Porter Biosciences E130. \$162.

Education 481-3

Special Topics: Integrative Learning

Getting at the essence is the essence of education! This workshop is designed to increase the student's awareness of the mind/body connection and its implication for learning, creativity, and expanding human capabilities. Included in a whole-brain approach to learning are: brain/mind research, visual imagery as it relates to memory, wellness and self concept, effects of emotion on learning, biofeedback, and nutrition. The workshop will be experiential and will include a review of numerous techniques which can be implemented in educational and mental health settings. There will be a \$2 materials fee.

Full Term - Section 300: Thursdays, 6:30-9:30 p.m., Engineering Center CR 0-01. \$162.

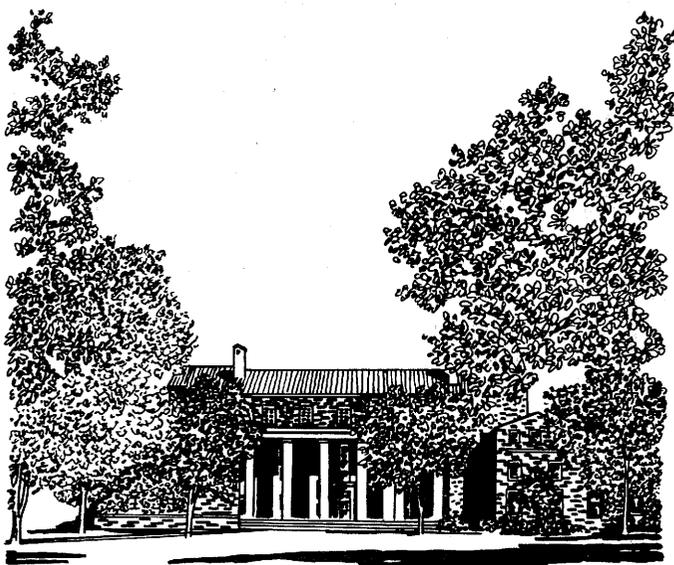
Education 482-3

Workshop in Curricular and Instructional Development: Meeting the Needs of the Gifted and Talented Child

This course will promote awareness of the unique needs of the gifted and talented child in the classroom, on a district-wide basis, and in the community. It will focus on identification, characteristics, curriculum development, individualized instructional materials, alternative programming, teaching strategies, program evaluation, parenting, and the affective areas of gifted education. Students will have an opportunity to discuss current issues in gifted education, simulate classroom situations, and share hands-on materials appropriate for gifted and talented children.

Full Term - Section 300: Tuesdays, 5-8 p.m., Engineering Center CR 0-01. \$162.

Boulder Evening tuition is assessed in addition to any tuition paid on campus (resident or nonresident).



English 119-3

Introduction to Creative Writing

This course is designed for students who want to learn basic techniques of writing short fiction and poetry. It is valuable for students with serious writing goals, for those who seek greater skill in self expression, and for those who want to better appreciate literature by learning to write it. Students will write stories and poems, and discuss them in a supportive, workshop atmosphere. We will also read and discuss the works of established writers, in order to develop our awareness of the elements of fiction and poetry.

Full Term - Section 300: Wednesdays, 7-10 p.m., Hellems 247. \$162.

English 120-3

Introduction to Fiction

Introduction to the novel, novella, and short story, including works from the nineteenth and twentieth centuries, as well as contemporary authors. Focus will be on reading and class discussions, and the development of basic critical approaches to fiction. Authors will include European, Latin American, and Russian writers in addition to American. When combined with English 126, 130, 140, 150, 160, 190, 226, or 253, satisfies first year humanities requirement.

Full Term - Section 301: Mondays, 7-10 p.m., Hellems 247. \$162.

Full Term - Section 302: Tuesdays, 7-10 p.m., Hellems 247. \$162.

English 140-3

Introduction to Poetry

The course will focus on the basic elements of poetry, such as figurative language and the precision and speed with which it communicates; the function of sound, rhythm, syntax, and various fixed forms of the poetical tradition. Samples of British, American, and some foreign poetry, contemporary as well as traditional, will serve to demonstrate the different elements and provide a historical background. The emphasis will be on reading and class discussions, development of critical skills, and most of all, a heightened appreciation for poetry. When combined with English 120, 126, 130, 150, 160, 190, 226, or 253, satisfies first year humanities requirement.

Session I - Section 100: Mondays and Wednesdays, 7-10 p.m., Engineering Center CR 1-03. \$162.

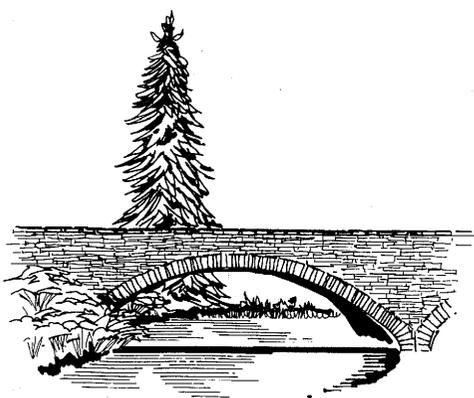
English 160-3

Introduction to American Writers

This course introduces students to a range of American literature, including poetry, fiction, and non-fiction prose, from earliest colonial times through the 20th Century. The development of our national literature is traced through the work of its most characteristic figures. Special attention is paid to the historical context out of which these writings emerged. Closed to those having credit in English 266. When combined with Engl. 120, 126, 130, 140, 150, 190, 226, or 253, satisfies first year humanities requirement.

Full Term - Section 300: Thursdays, 7-10 p.m., Hellems 241. \$162.

**ALL TUITION AND REFUND
ASSESSMENTS ARE SUBJECT
TO AUDIT**



**English 315-3
Report Writing**

Report Writing is a practical course which emphasizes on-the-job report writing. Topics will cover the writing process, writing to specific audiences, organizing content and preparing effective business letters, including resumes. Course requirements include weekly practical exercises with the emphasis on the student writing and evaluating sample reports as well as researching a final paper. The format of the class, a combination of lecture, discussion and evaluation, will sharpen the student's ability to write with ease and clarity.

Full Term - Section 300: Wednesdays, 6-9 p.m., Engineering Center CR 1-24. \$162.

**EPOB 122-3
General Biology II**

A concentrated introduction to organisms, physiology, development, behavior, and ecology. Emphasis on fundamental principles, concepts, and questions underlying modern biology. When combined with EPOB 121, satisfies first year natural sciences requirement. EPOB 121 and 122 can be taken in either order.

Full Term - Section 300: Tuesdays, 7-10 p.m., Engineering Center CR 0-36. \$162.

**EPOB 210-3
Introduction to Wildlife Ecology
and Conservation**

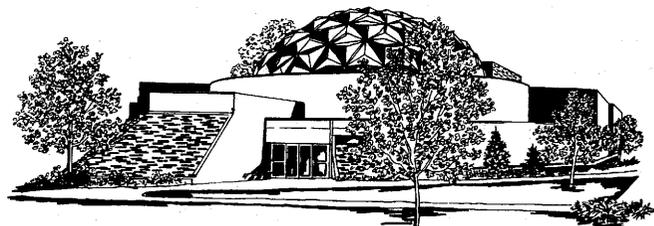
This course is designed for persons who want to better understand modern wildlife issues. It is intended to provide students with a background in ecology as it relates to the conservation and management of wildlife. The course will focus on basic ecological concepts while using, by the way of illustration, case histories of species ranging from Bighorn Sheep to Great Blue Whales. Major local, national, and global issues concerning wildlife will be examined from social, economic, philosophical as well as biological standpoints. Students will become familiar with a range of wildlife conservation, management, and research strategies. Approximately 8-10 hours of wildlife observation in the field are required. Scheduling of such can be tailored to individual student needs.

Session II - Section 200: Mondays and Wednesdays, 7-10 p.m., Engineering Center CR 0-09. \$162.

**Film Studies 355-3
Producing the Feature Film**

Designed to give the student a behind-the-scenes look at the way production in the entertainment industry is structured and how it works. The class will: 1) survey the production process from development to distribution; 2) focus on the crucial role which script plays in the production process; 3) "pitch a story" to studio executives. The class will also focus on: 1) various contract negotiations and the budget process; 2) job functions, qualifications, and opportunities in the entertainment industry; 3) relationships between producer, director, the writer, analysis of selected films for production value, story structure and budget considerations. Screenings include *Stunt Man*, *Beverly Hills Cop*, and other current films.

Session II - Section 200: Mondays and Wednesdays, 7-10 p.m., Norlin Library Audiovisual Room 250. \$162.



**Fine Arts 100-2
Basic Drawing**

Orientation course including pictorial design, life drawing, still life, and landscape, using varied drawing techniques and media. May not be repeated.

Full Term - Section 300: Mondays and Wednesdays, 7-10 p.m., Fine Arts C175. \$108.

**Fine Arts 376-2
Jewelry Design: Form Emphasis in Metalsmithing**

This course will include technical and aesthetic studies in shell structure including holloware, jewelry, and sculptural forms. Extensive demonstrations, slide lectures, and tool construction will augment expressive problem solving in conjunction with the finished product. May be repeated once for credit. Designed especially for Continuing Education.

Session I - Section 100: Tuesdays and Thursdays, 6:30-9:30 p.m., Fine Arts C1B 55. \$108.

Session II - Section 200: Tuesdays and Thursdays, 6:30-9:30 p.m., Fine Arts C1B 55. \$108.

Credit

Fine Arts 418-3

New Directions in Photography: Color

Students will learn the history, theory, aesthetics and practice of color photography as a fine art medium. This class will utilize the subtraction filter method of printing color negatives on color paper (type "C"). Students should expect to spend \$150-200 during the semester outside the tuition and lab fees on paper and film. Lab fees cover facilities and chemicals.

Full Term - Section 300: Mondays and Wednesdays, 7-10 p.m., Fine Arts N163. \$202.

Geography 100-3

Environmental Systems: Climate and Vegetation

A general introduction to the atmospheric environment of the earth; the elements and controls of climate and their implications to hydrology, vegetation, and soils. When combined with Geog. 101, satisfies first year natural sciences requirement.

Session I - Section 100: Tuesdays and Thursdays, 7-10 p.m., Guggenheim 3. \$162.

Geography 101-3

Environmental Systems: Landforms and Soils

An introductory survey primarily concerned with two essential aspects of the natural environment — landforms and soils. Major emphasis is directed to the genesis, distribution, and utility of surface features in a variety of learning situations, including lectures, labs, and field trips. Geog. 101 carries only two hours credit towards graduation if student has earned credit in Geol. 101 or 103. When combined with Geog. 100, satisfies first year natural sciences requirement.

Session II - Section 200: Tuesdays and Thursdays, 7-10 p.m., Guggenheim 3. \$162.

Geography 199-3

Introduction to Human Geography

A systematic introduction to the broad field of human-environment relationships. Topics vary but may include growth and distribution of populations, locational analysis of economic activities; origin, development, and problems of urban communities; and spatial analysis of cultural, historical, and political phenomena. When combined with Geog. 198 or 200, satisfies first year social sciences requirement.

Full Term - Section 300: Thursdays, 7-10 p.m., Guggenheim 2. \$162.

Geography 306-3

Maps and Mapping

Basic introduction to the skills and reasoning ability needed to appreciate and use maps as research tools and illustrative devices. Emphasis on map reading and geographic interpretation of local and other selected U.S. maps. Optional half-day field exercise will be available.

Full Term—Section 300: Mondays, 7-10 p.m., Guggenheim 3. \$162.

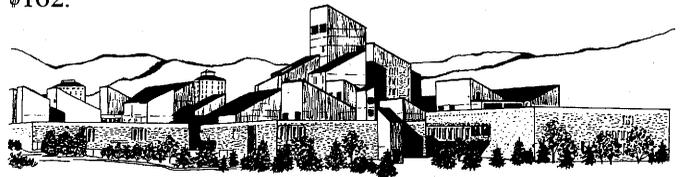
**NON ATTENDANCE AT CLASS DOES NOT
CONSTITUTE WITHDRAWAL.**

Geology 104-3

Introduction to Geology II: Historical Geology for Nonmajors

The geologic history of the Earth, including the origins and development of the physical and biologic world, will be covered by this course. Students will also learn the principles by which geologic history is determined. Emphasis will be placed on the geologic development of Colorado and the Rocky Mountain Region. Course consists of 13 three-hour lectures meeting once a week. Optional fieldtrips will also be arranged for those who are interested. The course is closed to geology majors. When combined with Geol. 103, satisfies first year natural sciences requirement.

Full Term - Section 300: Tuesdays, 7-10 p.m., Guggenheim 2. \$162.



History 142-3

History of England II

The period from the 17th century to the present. Political, economic, social, and imperial developments which contributed to the creation of modern industrial and democratic state are the major issues covered. When combined with Hist. 141, satisfies first year social sciences requirement.

Full Term - Section 300: Tuesdays, 7-10 p.m., Engineering Center CR 0-08. \$162.

History 152-3

History of the U.S. Since 1865

Major political, social, and intellectual trends in U.S. since the Civil War with emphasis on late 19th and 20th century reform movements. When combined with Hist. 151, satisfies first year social sciences requirement.

Full Term - Section 300: Wednesdays, 7-10 p.m., Engineering Center CR 0-08. \$162.

History 254-3

Topics in American History: U.S.-Soviet Relations Since 1917

This course focuses on the history of United States-Soviet relations since the Bolshevik Revolution in Russia in 1917. Among the issues to consider are: U.S. reaction to the communist revolution; diplomatic recognition of the Soviet Union; Stalinism; the Grand Alliance of World War II; origins of the Cold War; the nuclear arms race; and U.S.-Soviet detente. By tracing the history of the Soviet-American conflict, we will be in position to understand the nature of contemporary U.S.-Soviet relations. Class discussion will be encouraged and students should make an effort to be aware of current issues pertaining to U.S.-Soviet relations.

Session II - Section 200: Tuesdays and Thursdays, 7-10 p.m., Engineering Center CR 1-03. \$162.

History 258-3 **History of Colorado**

The class will reconstruct the story of this unique western state and study it as a microcosm of both the history of the frontier and political, economic, social, and ethnic groups. Full Term—Section 300: Mondays, 7-10 p.m., Business 354. \$162.

History 442-3 **Canadian History Since 1867**

Canada's history from establishment of the Dominion to the present, emphasizing major developments such as the growth of a sense of nationhood leading to a national sovereignty with multi-ethnic overtones, economic and cultural integration with the United States, and a new orientation in foreign policy away from Britain toward the United States. Prerequisite: junior standing.

Full Term - Section 300: Wednesdays, 7-10 p.m., Engineering Center CR 1-07. \$162

Journalism 200-2 **Writing for the Mass Media**

Provides an introduction to information gathering and writing techniques appropriate for the mass media. Emphasizes basic skills in grammar, organization, and information collection in both lecture and laboratory formats. Prer., Jour. 100.

Full Term - Section 300: Tuesdays, 7-9 p.m., Macky 3C. \$108.

Journalism 480-3 **Magazine Article Writing**

Fundamentals of the magazine feature article, emphasizing market analysis, story form, style and methods. Practice in writing the free-lance article, understanding the roles of the editor and the art department. Discussions of magazine history, writer's contracts and rights, photography, and advanced reporting and research skills.

Full Term - Section 300: Mondays, 7-10 p.m., Macky 102. \$162.



Mathematics 099-3 **Pre-College Mathematics**

Real numbers, algebraic expressions, exponents, radicals, first degree equations and inequalities, polynomials, special products and factoring, algebraic fractions, the function concept, graphs, and quadratic functions. This course carries 3 hours of add-on credit. Students who enroll in the course will have it appear on their transcript, but for Arts & Sciences students it will count as an additional three hours of credit toward their undergraduate degree, making the minimum number of hours 127 rather than 124. All registrations will be either for no credit (but full tuition will be charged for this type of registration, notwithstanding) or for a letter grade. The letter grade, which will conform to the letter grades given in all University courses, will be calculated by the computer as part of the computer-generated gpa for each student. This grade will continue to be carried by the College through a student's academic career, but will be removed in determining the final cumulative grade point average of the student at graduation.

Full Term - Section 300: Tuesdays and Thursdays, 3:30-5 p.m., Business 208. \$162.

Mathematics 101-3 **College Algebra**

Simplifying algebraic expressions, factoring, linear and quadratic equations, inequalities, exponentials, logarithms, functions and graphs, complex numbers, binomial theorem. Prer., one year high school algebra. Persons whose high school algebra was completed over three years ago should be prepared to spend additional time in review. (See Math. 099 also.) No credit for students with credit in Math. 110. Math. 101 and 102 are equivalent to Math. 110.

Full Term - Section 300: Mondays and Wednesdays, 7-8:30 p.m., Engineering Center CR 1-40. \$162.

Mathematics 102-2 **College Trigonometry**

Trigonometric functions, identities, solutions of triangles, addition of multiple angle formulas, inverse trigonometric functions, laws of sines and cosines. Prer., one and a half years high school algebra and one year high school geometry or Math. 101. No credit for students with credit in Math. 110. May be taken concurrently with Math. 130. Math. 101 and 102 are equivalent to Math. 110.

Full Term - Section 300: Thursdays, 6:30-8:30 p.m., Engineering Center CR 1-40. \$108.

Mathematics 107-3 **Mathematics for Social Science and Business**

Systems of linear equations; an introduction to matrices, linear programming, and probability. Does not prepare students for Math. 110 or 130. Prer., 1½ years of high school algebra or equivalent.

Full Term - Section 300: Mondays & Wednesdays, 6-7:30 p.m., Engineering Center CR 0-01. \$162.

Mathematics 108-3 **Calculus for Social Science and Business**

An intuitive treatment of beginning calculus; differentiation and integration of algebraic, logarithmic, and exponential functions with applications in business and the social sciences. No knowledge of trigonometry or analytic geometry is presupposed. Those planning to take more than one semester of calculus should take Math. 130 instead of Math. 108.

Full Term - Section 300: Mondays, 5:30-8:30 p.m., Engineering Center CR 1-42. \$162.

Mathematics 230-5 **Analytic Geometry and Calculus II**

Continuation of Math 130. Applications of the definite integral, transcendental functions, methods of integration, plane analytic geometry, polar coordinates, vectors, and parametric equations. When combined with Math. 130, satisfies first year natural sciences requirement.

Full Term - Section 300: Mondays and Thursdays, 5:30-8 p.m., Engineering Center CR 0-38. \$270.

Philosophy 100-3 **Introduction to Philosophy**

The course focuses on several topics and issues. Among them are the existence of God, ethics, and ways of knowing. A portion of the course will be devoted to specific ethical problems; among them will be abortion, animal rights, and armaments. The student will be encouraged to participate in class discussions as a way of learning to do philosophy instead of memorizing a set of lecture notes. Readings are from primary sources, most of them traditional, in the history of philosophy. Short papers are required. When combined with Phil. 102, 103, 105, 106, 107, or 112, satisfies first year humanities requirement. When combined with Phil. 104, 209, or 220, satisfies first year social sciences requirement. If Phil. 100 is used for the humanities requirement, it cannot be used for the social sciences requirement.

Session I - Section 100: Tuesdays and Thursdays, 7-10 p.m., Hellems 267. \$162.

Philosophy 102-3 **Ethics**

This course will offer an introduction to that part of philosophy known as ethics. Basic ethical concepts and issues will be presented and explored in lecture and discussion. Time will be devoted to both theoretical points and actual ethical situations in the world and in our own lives. The intent will be to sharpen our awareness of the ethical, learn to analyze it with greater depth, formulate our own values, deepen our reflective lives, and to bring more fulfillment to our existence through an increased appreciation of the meaning and power of our actions in the world. When combined with Phil. 100, satisfies first year humanities requirement.

Session II - Section 200: Tuesdays and Thursdays, 7-10 p.m., Hellems 267. \$162.



Physical Education 225-2 **Advanced First Aid and Emergency Care**

A 64-hour training program in emergency procedures for those injured or suddenly taken ill, emphasizing both theory and skill application, taught from a beginning level through a lecture-discussion-practice system, extensively utilizing audiovisual materials to convey the realities of trauma and acute illnesses. This course provides essential information for developing functional first aid capabilities required by outdoor recreation enthusiasts, wilderness trip leaders, ski patrollers, volunteer firefighters, and others whose special interests place them in situations where medical assistance may be delayed. Training in cardiopulmonary resuscitation (CPR) is included.

Session I - Section 100: Mondays and Wednesdays, 6-10 p.m., Engineering Center CR 1-01. \$108.

Session II - Section 200: Mondays and Wednesdays, 6-10 p.m., Engineering Center CR 1-01. \$108.

Physical Education 342-3 **Nutrition and Health**

In addition to the studying of nutrients and how they function in the body, current controversial issues in nutrition will be examined. Included are food additives, natural and organic foods, vitamin supplements, nutrition for athletes, vegetarian diet, diet and heart disease, diet and cancer, and diet in each stage of the life cycle.

Full Term - Section 300: Tuesdays, 7-10 p.m., Engineering Center CR 0-38. \$162.

Session II - Section 200: Mondays and Wednesdays, 7-10 p.m., Engineering Center CR 1-09. \$162.

Political Science 110-3 **The American Political System**

A general introduction to the American political system with emphasis upon the interrelations among the various levels and branches of government, formal and informal institutions, processes and behavior. When combined with P.Sc. 201, 202, 222, or 240, satisfies first year social sciences requirement.

Full Term - Section 300: Wednesdays, 7-10 p.m., Ketchum 234. \$162.

Political Science 222-3 **Introduction to International Relations**

The purpose of this introductory course is to introduce students to both the tools of the discipline and its contemporary issues. Therefore, this course consists of three parts: the study of tools, which deals with the concepts, methods, and theories of the discipline; conflict and peace studies, that focuses on both the conflictual and cooperative aspects of the North-South and East-West relationships; and the study of future alternatives. The breadth and changing scope of the discipline forces us to be selective in the topics of discussion. Time will be allocated to discuss topics of interest to students. When combined with P.Sc. 110, satisfies first year social sciences requirement.

Full Term - Section 300: Tuesdays, 6-9 p.m., Business 354. \$162.

Psychology 100-3 **General Psychology**

Survey of major topics in psychology, including sensory and perceptual processes, human development, personality, frustration and conflict, learning and memory, and the biological basis of behavior. When combined with Psy. 230, 245 or 264, satisfies first year social sciences requirement. When combined with Psy. 205, satisfies first year natural sciences requirement. If Psy. 100 is used for the social sciences requirement, it cannot be used for natural sciences requirement.

Full Term - Section 300: Thursdays, 7-10 p.m., Porter Biosciences E113. \$162.

Session II - Section 200: Mondays and Wednesdays, 7-10 p.m., Muenzinger D156. \$162.

Psychology 205-3 **Introduction to Biopsychology**

A broad survey course in the psychological, endocrine, and genetic bases of behavior. Topics to be covered include the biological bases of learning, motivation, emotion, movement, comparative animal behavior, sexual and reproductive activity, instinctual behavior, neurophysiology, and neuroanatomy in relation to behavior. When combined with Psy. 100, satisfies first year natural sciences requirement.

Full Term - Section 300: Tuesdays, 7-10 p.m., Muenzinger D156. \$162.

Psychology 210-3 **Statistics and Research Methods in Psychology**

This course will explore the methods that researchers use to establish facts. Topics will include the scientific method, designing experiments to test hypotheses, evaluating experiments, and summarizing data. Emphasis will be placed on the use and misuse of statistics; especially, how to lie with statistics and how to represent data, etc. The purpose of the latter is to sharpen one's analytical skills. This course is a requirement for all psychology majors and recommended for persons planning to pursue a career in behavioral sciences.

Full Term - Section 300: Tuesdays, 7-10 p.m., Muenzinger D144. \$162.

Psychology 230-3 **Psychology of Adjustment**

The Psychology of Adjustment draws from a broad area of psychology. It is primarily concerned with how people grow and develop as individuals and how they function within their social groups. In this course we will first examine general theories of human behavior—why do people behave as they do? We will then go on to study how to promote healthy adjustment to life's challenges and what happens when people fail to adjust. Thus, we will cover topics such as assertiveness, behavior change and psychological problems and their treatment. When combined with Psy. 100, 245, or 264, satisfies first year social sciences requirement.

Full Term - Section 300: Tuesdays, 6:30-9:30 p.m., Porter Biosciences E113. \$162.

Psychology 264-3 **Child and Adolescent Psychology**

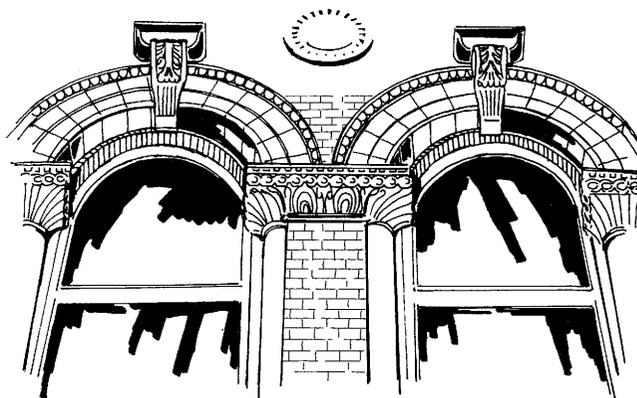
What do we know about how people develop? To what extent do early experiences, both physical and psychological, affect later development? How do children acquire the behavior and values appropriate for their cultures? These are some of the questions that will be addressed in this course on the psychological development of children and adolescents. This is not a course on child rearing for the simple reason that developmental psychologists have little privileged information on how children should be raised. Instead, you will become acquainted with theory and research in a broad number of areas concerned with development: infant development, cognitive, language, and social development. Where appropriate, we will examine how theory and research can be applied to problems facing families with children. When combined with Psy. 100, 230, or 245, satisfies first year social sciences requirement.

Full Term - Section 300: Wednesdays, 7-10 p.m., Porter Biosciences E113. \$162.

Psychology 430-3 **Abnormal Psychology**

An examination of psychopathology: theoretical orientations, diagnostic methods, diagnostic categories, treatment, and research in psychopathology.

Full Term - Section 300: Mondays, 6:30-9:30 p.m., Porter Biosciences E113. \$162.



Sociology 119-3 Deviance

In this course, the various social phenomena which are seen as instances of "deviance" are approached through five major sociological perspectives. Concentration will be upon the processes whereby certain things come to be seen as "deviant," and on the meanings and consequences of our responses to them. The everyday nature of deviance, rather than its rarity or distance from common experience is stressed. This is a reading, writing, and discussion course. Students will be helped to read a selection of original studies in the Sociology of Deviance, encouraged to discuss their reading and the material presented in class, to relate the ideas thus generated to their normal life experiences and to write about these, using the theoretical perspectives as they have studied. The course is, thus, intended as a good introduction to sociological thinking and to the basic tools of academic work. When combined with Soc. 211, satisfies first year social sciences requirement.

Full Term - Section 300: Thursdays, 6:30-9:30 p.m., Ketchum 235. \$162.

Sociology 191-3 Contemporary Social Issues

Introductory consideration of some 30 current social controversies such as democracy, capitalism, race and ethnic groups, marriage, the family, crime, international tensions, and world order. Designed to improve the student's ability to understand current debate and to formulate opinions for himself. When combined with Soc. 211, satisfies first year social sciences requirement.

Full Term - Section 300: Mondays, 7-10 p.m., Hellems 137. \$162.

Sociology 211-3 Introduction to Sociology

An exploration of the sociological perspective and its insights into social phenomena ranging from impersonal social forces and institutional structures. Explains the major theoretical approaches to social relations and the basic methods of social scientific inquiry. Includes historical comparisons of societies and cultures, critical analysis of U.S. institutions, and an exploration of the processes of social change. When combined with Soc. 119, 128, 191, 212, 239, or 250, satisfies first year social sciences requirement.

Session II - Section 200: Tuesdays and Thursdays, 7-10 p.m., Hellems 81. \$162.

Sociology 495-3 Criminology

An exploration of the social processes involved in producing the perpetuating crime. Includes a critical examination of the operations of the criminal justice system as well as an analysis of the causes of criminal behavior. Provides a survey of various criminological theories and a critical assessment of conventional explanations of crime. Broadens the inquiry into the nature of crime beyond a focus on individual streetcrime and white-collar crime to include consideration of corporate crime, and crime by the state. Sophomore standing is suggested, or permission of the instructor. When combined with any other upper division sociology course, except 317, 401, 402, 438, 439, or 491, will complete the second year social sciences requirement provided first year combination has been completed.

Full Term - Section 300: Wednesdays, 7-10 p.m., Hellems 181. \$162.

Spanish 102-5 Beginning Spanish

Continuation of Spanish 101. Course will offer students a firm command of Spanish grammar. Recitation sections will reinforce structures discussed in lecture. Grammar will be used as point of departure for development of oral skills. Reading and writing will be stressed to a lesser degree. Prerequisite: Spanish 101 or placement exam.

Full Term - Section 300: Tuesdays and Thursdays, 6-8:30 p.m., Hale 105. \$270.



Management Development Certificate Program

This Certificate Program has been designed to develop management skills for persons who aspire to management positions or who wish to increase their expertise in any area of management. There are no prerequisites for any course, and any person interested may enroll. One need not be working toward certification. Any course enrollment immediately registers you in the Certificate Program. In the competitive market, the people most likely to succeed are those with a thorough knowledge of a wide range of management areas. This program develops expertise in the basic and most useful areas of management. New courses are added regularly; several are offered more than once a year.

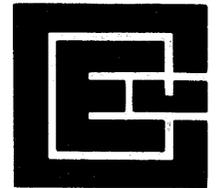
Course offerings cover task-related skills and important management concepts. Enrollees may select from the courses which best meet their career needs. Each course is designed to consider a key aspect of the management process. Faculty are experts recruited from universities and from private businesses or consulting firms. They are chosen for their special expertise in the subject area and their proven teaching skills. Courses are not overly technical or purely theoretical; all subject matter is presented in a format which participants can relate directly to their profession.

Locations for Boulder courses are listed at the end of each course. The Hilton Harvest House is located at 1345 28th Street. Locations for Longmont courses (see following listing, page 22) are all at Longmont High School; specific room numbers will be given at registration.

Refreshments are provided at classes held in the Boulder Campus University Club only; this is included in the course tuition. Lunches for all-day sessions are not included in the course tuition, unless otherwise noted.

Professional Development Program Certificates are awarded for attendance at any of the courses. This attendance certification is determined by the course instructor. Continuing Education Units are awarded for course attendance. One Continuing Education Unit (CEU) represents 10 hours of university or college-level course participation, and is a nationally recognized standard. The number of CEUs awarded in a course is listed with the course description, and follows this 10:1 ratio.

The Continuing



Education Unit®

Management Development Certificate Program

Courses by Starting Date, Spring 1986

Starts	Course	Faculty
Wednesday, February 5	Communication Effectiveness: Between Supervisor and Employee	Barry T. Dawson
Thursday, February 6	Building Productive Work Teams	Charles A. Rice
Monday, February 10	Accounting for the Non-Accounting Manager	Jim Young
Tuesday, February 11	Practical Problem Solving for the New Supervisor or Manager	Tony Hopper
Tuesday, February 11	Art of Persuasion	Orvel Ray Wilson
Thursday, February 20	Managing People	Randy M. Bauer
Wednesday, February 26	Human Relations: Gaining Power While Helping Your Workers	Barry T. Dawson
Tuesday, March 4	Marketing Overview	Tony Hopper
Tuesday, March 4	Technical Writing Seminar	Mike Gannon
Thursday, March 6	Men and Women in the Workplace	Audrey Nelson-Schneider
Monday, March 10	Interviewing for Selection	Sandra L. Paulson
Thursday, March 13	Project Management	Charles A. Rice
Friday, March 14	How to Work Smarter	Randy M. Bauer
Thursday, April 3	Time Management	Orvel Ray Wilson
Monday, April 7	Exerting Leadership and Making Decisions	Alice Baumgartner
Wednesday, April 9	Working Assertively: Effective Job Skills	Toni Scott
Tuesday, April 15	Update Your Writing Skills: A Must for All Managers	Betty Brown, Gail Thomason
Wednesday, April 23	Communication Skills for Secretaries and Office Support Staff	Randy M. Bauer
Thursday, April 24	Productive Communication in the '80s	Randy M. Bauer
Monday, April 28	Innovation and Creative Thinking in Business	John H. Dawson
Tuesday, May 20	How to Manage the Problem Employee	Randy M. Bauer

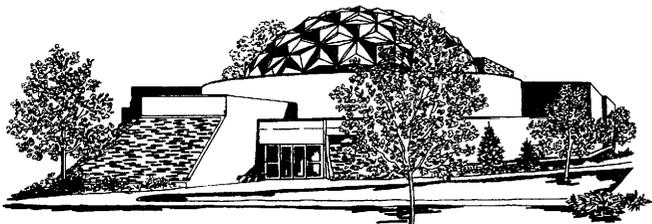
The completed **Management Development of Achievement** is awarded upon successful completion of courses equal to 10 CEUs or 100 hours of instruction. A complete transcript of program participation is maintained, and available without fee upon request.

The Management Development courses are conducted continuously and need not be completed with the herein described courses. A permanent record of participation is kept, and a transcript of courses taken is available free of charge at any time. Students may continue the certification process at their own pace, or may enroll in any number of courses, depending on professional goals.

Course tuitions are listed at the end of each course description. Please note that **refunds** are given only before the start of a course, none after.

An income tax deduction is allowed for educational expenses (including tuition, travel, meals, and lodging) undertaken to maintain and improve professional skills (see Treasury Regulation 1.162-5 or Coughlin vs. Commissioner 207F 2d 307). For specific information please consult your tax advisor.

All questions concerning the program, including your current status toward earning the Achievement Certificate, may be answered by calling the Division of Continuing Education at 492-5148 (or call outside the Denver Metro dialing area, 1-800-332-5839).



Personnel Management

BMDP-93

Communication Effectiveness: Between Supervisor and Employee

Productive employees are goal-oriented individuals who enjoy work and satisfy their personal needs in working. This course is directed to owners and managers who wish to retain existing personnel and their loyalty rather than withstand costly turnover and training. Focus is on self-improvement and individual goals and strengths for increasing productivity. The course involves all participants and their professional environments, emphasizing communication skills and goal-setting techniques. Barry T. Dawson. Wednesday, February 5, 7:00-10:00 p.m., and Wednesdays, February 12 and 19, 6:30-10:00 p.m. 3 sessions, 1 CEU. University Club. \$75.

BMDP-98

Building Productive Work Teams

This intensive workshop is aimed at making functional work teams more effective, productive, and creative. Specific concepts, procedures, and strategies will be presented in real time with real issues, problems, and concerns that the participants share in a workshop/seminar setting. Proven principles and concepts from business management, the behavior sciences, and disciplined problem solving will form the foundation for this program. The dominant thrust of this team building workshop is to increase the flow of useful information throughout the organization to achieve business goals. Charles A. Rice, M.B.A. Thursday, February 6, 7:00-10:00 p.m., and Saturday, February 8, 9:00 a.m.-4:30 p.m. 2 sessions, 1 CEU. University Club. \$75.

BMDP-86

Men and Women in the Workplace

This course examines the relations between the sexes in the workplace. The focus will be on management styles, verbal and nonverbal behaviors, latest research, and myths and stereotypes. All participants will have the opportunity to assess their perceptions and behaviors regarding both sexes. Suggestions for improving relations with both men and women will be presented with the skills you need to enhance your management style in any situation and promote productive work environments. Audrey Nelson-Schneider, Ph.D. Thursday, March 6, 7:00-10:00 p.m., and Thursdays, March 13 and 20, 6:30-10:00 p.m. 3 sessions, 1 CEU. UMC 158B. \$75.

BMDP-68

Interviewing for Selection

This course is designed for any person responsible for the interviewing and selection process within an organization. Each session is highly participative; we will develop practical materials as future reference material, and will develop skills through actual practice. The topics covered will include sources of information, developing questions, setting the climate, warning signals in an interview, closing techniques, and evaluating the information learned. Special legal issues will be covered to prevent interview-related lawsuits and guidelines from the Colorado Civil Rights Commission will be analyzed. Sandra L. Paulson, M.Ed. Monday, March 10, 7:00-10:00 p.m., and Mondays, March 17 and 31, 6:30-10:00 p.m. (no class session March 24). 3 sessions, 1 CEU. Business 125. \$75.

BMDP-90

Time Management

Getting the most out of an 8-hour day, a 40-hour week, or a life span depends on proper time management. This course will help you analyze how your time is actually spent, assist you in determining priorities, and then in translating your goals into reality. Basic approaches to time management will be discussed as well as tips for overcoming procrastination and organizational time problems, time management in relation to effectiveness in an organization, and participative strategies. Orvel Ray Wilson. Thursdays, April 3 and 10, 7:00-9:30 p.m. 2 sessions, .5 CEUs. Business 125. \$45.

BMDP-72

How to Manage the Problem Employee

Designed for managers and supervisors at every level of the organization, this course covers specific techniques to confront and eliminate problem behavior in employees, remaining objective and in control in confronting a problem, and developing action plans to improve performance. Special emphasis is placed on early identification as a key to effectiveness, handling "attitude problems," and realistic disciplinary programs. Lunch and refreshment breaks are included in the course tuition. Randy M. Bauer, M.B.A. Tuesday, May 20, 9:00 a.m.-4:00 p.m. One all-day session, .6 CEUs. Hilton Harvest House. \$75.

Avoid the Registration Crunch
Phone-In Noncredit — Certificate Registration

January 13 — February 21
MasterCard — VISA Only

443-7968

443-8979

443-9973

For other course information:
492-5148

Make our registration office as close as your telephone.
Complete registration information, page 65.
Before January 13, after February 21, call
492-5148.

Supervision in Management

BMDS-97

Practical Problem Solving for the New Supervisor or Manager

Topics include analyzing and testing ideas, preparing people activities, time and cost shortcuts, developing a decision-making profile and strategy, presenting ideas professionally, and handling questions. Emphasis is on a winning professional manner and effectively conceptualizing, presenting, and implementing ideas. As a result of this program you will be able to:

- Learn how to identify the real problems faster.
- Learn how to prove that there is a problem in terms of dollars, costs, or time.
- Learn how to develop and evaluate a number of solutions using practical techniques.
- Learn how to emphasize quickly and concisely the benefits of your plan.
- Learn how to develop problem-solving profiles of both individual people and of departments and organizations.

Tony Hopper, M.B.A., Ph.D. Tuesday, February 11, 7:00-10:00 p.m., and Tuesdays, February 18 and 25, 6:30-10:00 p.m. 3 sessions, 1 CEU. Business 125. \$75.

BMDS-72

Human Relations: Gaining Power While Helping Your Workers

For managers and potential leaders, this course teaches motivational techniques for helping personnel fulfill potential, while you gain loyalty and facilitate "other person" awareness. Topics emphasized are: organizational work climate, information on personality types, communication skills, personal and career goal planning, and job satisfaction and involvement. Course builds a sound working knowledge of practical human relations skills, designed for success. Barry T. Dawson, B.S. Wednesday, February 26, 7:00-10:00 p.m., and Wednesdays, March 5 and 12, 6:30-10:00 p.m. 3 sessions, 1 CEU. University Club. \$75.



BMDS-91

Exerting Leadership and Making Decisions

Concepts and techniques of leadership as they function in today's organizations. Opportunities to analyze individual leadership behavior and explore leadership styles in relation to situational factors. Experiential exercises. Development of personal plans for effective leadership and decision making. Topics include bases and functions of leadership, choosing a style, motivating people, and organizational reality. Alice Baumgartner, Ph.D. Monday, April 7, 7:00-10:00 p.m., and Mondays, April 14 and 21, 6:30-10:00 p.m. 3 sessions, 1 CEU. Business 125. \$75.

BMDS-93

Working Assertively: Effective Job Skills

Immediately useful and practical everyday skills, strategies, and techniques to enable you to stand up for your rights without violating the rights of others; to get your ideas heard — up and down the management ladder — to handle difficult situations, unfair demands, discipline, criticism, angry confrontations, etc.; to turn self-defeating behavior into positive and caring assertion. Workshop format will assist you in developing your own personally effective style of assertion. In order to achieve this goal, you should be ready to incorporate new behaviors into your life and be comfortable with planned changes. Toni Scott, M.A. Wednesdays, April 9 and 16, 7:00-10:00 p.m., and Saturday, April 19, 9:00 a.m.-4:30 p.m. 3 sessions, 1.3 CEUs. University Club. \$95.

Management: An Overview

BMDM-72

Technical Writing Seminar

With information becoming the major product of our economy, there is a continuous need to upgrade skills for presenting technical data in concise, easily understood language for those who need to know. Applications for this seminar include reports, proposals, manuals, trade journal articles, audiovisual and instructional material, catalogs, and much more. Step-by-step learning modules supplied with the seminar begin with the basics, and proceed into advanced techniques. Topics include top-down organizing, research, logic, interviewing, writing/editing, as well as manuscript production and electronic-assisted writing. Mike Gannon, B.A. Tuesdays, March 4-April 8 (no class session March 25), 7:00-9:30 p.m. 5 sessions, 1.3 CEUs. Business 125. \$95.

BMDM-96

Project Management

This intensive seminar will focus on the planning, organizing, leading, and controlling of major projects of any variety. Also included with these classical management skills will be a module on midcourse corrections to projects that have deviated from planned schedule and/or budget. Charles A. Rice, M.B.A. Thursday, March 13, 7:00-10:00 p.m., and Saturday, March 15, 9:00 a.m.-4:30 p.m. 2 sessions, 1 CEU. University Club. \$75.

BMDM-86

Updating Your Writing Skills: A Must For All Managers

Maintain and strengthen your credibility on paper by reviewing basic writing strategies and by applying these strategies to your job-related writing. Course will emphasize your sending clear, coherent messages — memos, lab reports, meeting minutes, letters or reports that go outside your organization. Composition of the group will determine the formats covered. Betty Brown, M.A. and Gail Thomason, M.A.T. Tuesdays, April 15-May 6, 6:30-9:00 p.m. 4 sessions, 1 CEU. Business 125. \$75.

BMDM-74

Innovation and Creative Thinking in Business

Success, power, and profit will come to people with good creative ideas. Everyone has untapped creative potential, and those who have cultivated their ability to think creatively — to generate, manage, and apply ideas — will be the successful innovators of tomorrow. Creative thinking is a skill, and like other skills it can be improved with proper attention and practice. This course provides a way to do this by demonstrating proven methods and techniques to strengthen creative thinking and idea managing abilities. Participants will learn skills to strengthen creative thinking, generate and manipulate ideas, open mental locks, and eliminate idea killers, and apply methods to turn creative ideas into effective action. John H. Dawson, J.D. Mondays and Wednesdays, April 28-May 12, 7:00-9:30 p.m. 5 sessions, 1.3 CEUs. University Club. \$95.

Administration Development

BMDA-93

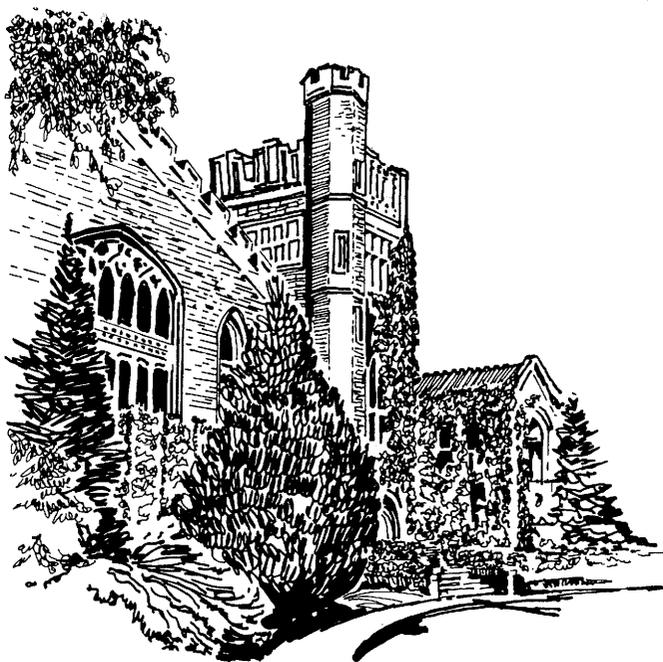
Managing People

This unique, one-day seminar will examine those skills necessary for success in a people management position. Participants will have an opportunity to learn motivation, communication, leadership, and time management techniques that can be used to improve work group and organizational effectiveness. Class participants will be actively involved in the learning process. Various discussion topics, role plays, and short lectures will be used to make the material vibrant and practical to participants. Course fee includes lunch and refreshment breaks. Randy M. Bauer, M.B.A. Thursday, February 20, 9:00 a.m.-4:00 p.m. One all-day session, .6 CEUs. Hilton Harvest House. \$75.

BMDA-32

How to Work Smarter

Improve your productivity by learning practical techniques guaranteed to eliminate time-wasting behaviors, improve concentration, relax in the face of tension and stress-producing situations, and replace frustration with confidence and enthusiasm. Learn how to prevent burnout and achieve balance in your life. Though no prerequisites are required, this course is a follow-up to "Communication Skills for Secretaries and Office Support Staff" and "Productive Communication in the '80s," two of last semester's most popular courses. Course fee includes lunch and refreshment breaks. Randy M. Bauer, M.B.A. Friday, March 14, 9:00 a.m.-4:00 p.m. One all-day session, .6 CEUs. Hilton Harvest House. \$75.



The week of April 21-26 is Professional Secretaries Week, and specifically, Wednesday, April 23 is Professional Secretaries Day. This week has become a traditional time to express appreciation to all support staff, men or women, office or workshop. The staff could get flowers or another tie, but this year, why not a practical, interesting University seminar that will be useful to every level of the business and a valuable working tool for the rest of their professional years?

BMDA-76
Communication Skills for Secretaries and Office Support Staff

This seminar will examine those skills necessary for effective communications on the job. Participants will learn listening, human relations, conflict management, and assertiveness techniques that can be used to improve the communication process with superiors, coworkers, and the public. A combination of lectures, small group discussions, group exercises, and self-awareness activities promises to make this a meaningful, productive, and exciting learning experience. Course fee includes lunch and refreshment breaks. Randy M. Bauer, M.B.A. Wednesday, April 23, 9:00 a.m.-4:00 p.m. One all-day session, .6 CEUs. Hilton Harvest House. \$75.

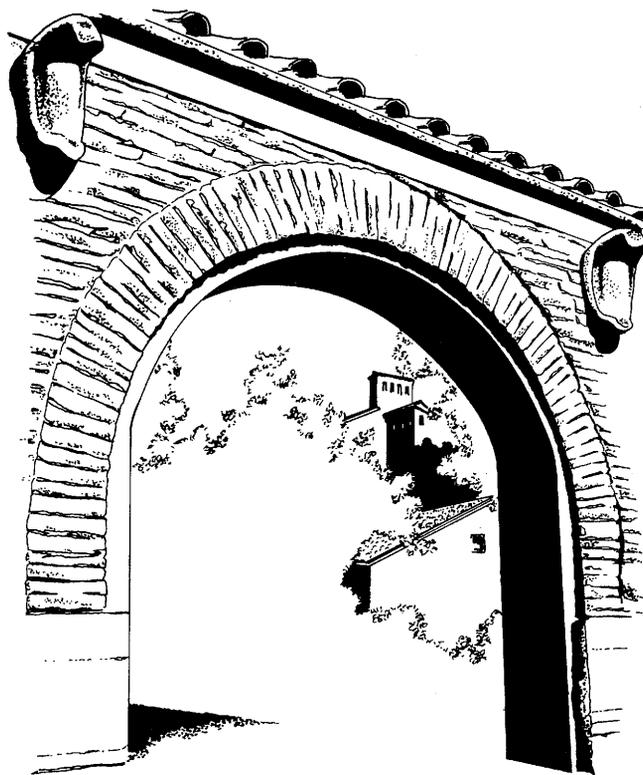
BMDA-87
Productive Communication in the '80s

Employees at every level of the organization will learn practical and useful skills that can be used to build more productive relationships with others at work. This seminar is an extension of Communication Skills for Secretaries and Office Support Staff, though neither course is a prerequisite of the other. Course fee includes luncheon, materials, and coffee breaks. Randy Bauer, M.B.A. Thursday, April 24, 9:00 a.m.-4:00 p.m. One all-day session, .6 CEUs. Hilton Harvest House. \$75.

Financial and Sales Management

BMDF-90
Accounting for the Non-Accounting Manager

Of vital interest to owners, managers, executives, and professionals interested in gaining a better understanding of financial statements and their analysis and the accounting process as they apply in business. This four-session seminar presents an overview of accounting principles, how individual transactions are reported, and how results are summarized in a completed financial statement. Provides a greater comprehension of the basic financial statements and accounting reports to give managers a firm grasp of financial information as it is used in decision making and evaluation of a company's operation. Jim Young, C.P.A., M.B.A. Mondays, February 10-March 3, 7:00-9:30 p.m. 4 sessions, 1 CEU. Business 208. \$75.



BMDF-91
Art of Persuasion

Whether you sell a product, a service, or idea, this seminar will increase your effectiveness and income. You will gain a broader range of skills to increase and maintain a higher level of motivation, ask for what you want and get it, handle objections with ease, deal with difficult clients and coworkers, sell effectively without being pushy, and create more rewarding relationships at work and at home. Orvel Ray Wilson. Tuesdays, February 11-March 18, 7:00-9:30 p.m. 6 sessions, 1.5 CEUs. Business 208. \$95.

BMDF-92
Marketing Overview

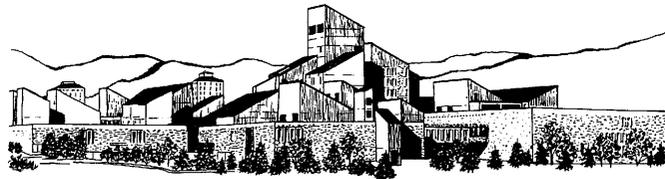
Includes analyzing the product or service offered, pinpointing the target market, developing a customer profile, analyzing the competition, advertising and professional sales planning, distribution, and marketing management. Theoretical concepts will be briefly reviewed, with emphasis on applying them to the manager's unique business or institution. Tony Hopper, M.B.A., Ph.D. Tuesdays, March 4, 7:00-10:00 p.m., and Tuesdays, March 11 and 18, 6:30-10:00 p.m. 3 sessions, 1 CEU. UMC 425. \$75.

Noncredit/Certificate Registration	
Phone-In Registration	
	443-7968 443-8979 443-9973
MasterCard/VISA	
Details on page 65.	
	

Longmont Management Development Certificate Program

The University of Colorado, Boulder, Division of Continuing Education is offering a series of courses in Longmont during the Spring Semester of 1986. These courses qualify for the Management Development Certificate Program. The University is proud to offer these high-quality courses in Longmont and will continue this series as a compliment to the Longmont business community.

All questions concerning these courses and any requests for future courses in Longmont should be directed to the Division of Continuing Education; call 492-5148 or 1-800-332-5839 toll-free.



General program description is the same as the previously listed Boulder program. All classes are conducted at Longmont High School, 1040 Sunset; specific room number is given at registration.

Longmont Management Development Certificate Program

Courses by Starting Date, Spring 1986

Starts	Course	Faculty
Monday, January 27	Project Management	Charles A. Rice
Tuesday, February 4	The Power of Information in Business	Mary Kathleen Wilder Carol Krisman Cassandra Geneson
Thursday, February 6	Art of Persuasion	Orvel Ray Wilson
Wednesday, February 12	Update Your Writing Skills: A Must for All Managers	Betty Brown Gail Thomason
Monday, March 10	Accounting for the Non-Accounting Manager	Jim Young
Monday, April 14	Managing for Performance	Sandra L. Paulson

LMDM-96 Project Management

This intensive seminar will focus on the planning, organizing, leading, and controlling of major projects of any variety. Also included with these classical management skills will be a module on mid-course corrections for projects that have deviated from planned scheduled and/or budget. Charles A. Rice, M.B.A. Mondays, January 27, February 3 and 10. 6:30-10:00 p.m. 3 sessions, 1 CEU. Longmont High School. \$75.

LMDM-77 The Power of Information in Business

The key to success for business and professional people is having information so that educated decisions can be made. Often, getting facts and figures can be a very frustrating experience. In an era frequently called the Information Age, we often find ourselves in the midst of an information pollution. The greatest challenge of these times is getting the RIGHT information. This seminar uses a practical, how-to-do-it approach that shows how to find the information you need whatever your topic. Learning research techniques will allow you to make the most efficient use of your research time. Participants leave the seminar armed with insights on the vast array of data available and equipped with sophisticated research techniques on how to get that data. Mary Kathleen Wilder, Carol Krisman, Cassandra Geneson. Tuesdays, February 4 and 11, 6:30-9:00 p.m. 2 sessions, .5 CEUs. Longmont High School. \$65.

LMDP-91 Art of Persuasion

Whether you sell a product, a service, or idea, this seminar will increase your effectiveness and income. You will gain a broader range of skills to increase and maintain a higher level of motivation, ask for what you want and get it, handle objections with ease, deal with difficult clients and coworkers, sell effectively without being pushy, and create more rewarding relationships at work and at home. Orvel Ray Wilson. Thursdays, February 6, 13, 20, 27, March 6 and 13, 7:00-9:30 p.m. 6 sessions, 1.5 CEUs. Longmont High School. \$95.



LMDM-86

Update Your Writing Skills: A Must For All Managers

Maintain and strengthen your credibility on paper by reviewing basic writing strategies and by applying these strategies to your job-related writing. Course will emphasize your sending clear, coherent messages — memos, lab reports, meeting minutes, letters or reports that go outside your organization. Composition of the group will determine the formats covered. Betty Brown, M.A. and Gail Thomason, M.A.T. Wednesdays, February 12, 19, 26, March 5, 6:30-9:00 p.m. 4 sessions, 1 CEU. Longmont High School. \$75.

LMDF-90

Accounting for the Non-Accounting Manager

Of vital interest to owners, managers, executives, and professionals interested in gaining a better understanding of financial statements and their analysis and the accounting process as they apply in business. This four-session seminar presents an overview of accounting principles, how individual transactions are reported, and how results are summarized in a completed financial statement. The program also provides a greater comprehension of the basic financial information as it is used in decision making and evaluation of a company's operation. Jim Young, C.P.A., M.B.A. Mondays, March 10, 17, 31, and April 7, 7:00-9:30 p.m. 4 sessions, 1 CEU. Longmont High School. \$75.

LMDM-64

Managing for Performance

This course is designed for any person who manages other employees and is responsible for productivity levels of his/her staff. Each session will focus on the practical application of good management techniques to employee performance issues. The topics covered will include communicating performance expectations, confirming good performance, coaching performance, confronting poor performance, the performance evaluation process, legal issues, and issues of termination for poor performance. Sandra L. Paulson, M.Ed. Mondays, April 14, 21, 28, and May 5. 7:00-9:30 p.m. 4 sessions, 1 CEU. Longmont High School. \$75.



Certificate In Computer Applications

Computers, office automation, and electronic information systems are changing the nature of our work and leisure activities. Not long ago, large expensive systems in the hands of specialists dominated computer applications. Now, rapidly advancing microchip technology has made powerful and creative computer tools accessible to people of most occupations. A growing advantage in today's professional marketplace exists for those knowledgeable in computer applications. Familiarity with computer systems can be a strong asset to any person's professional development.

The Certificate in Computer Applications is a comprehensive series of courses designed to give participants important skills with hardware and software from the mainstream, as well as the leading edge, of computer applications. Emphasis is not on creating computer programmers, but on developing practical skills with courses that feature instructors who are expert practitioners as well as skilled teachers. You need not formally apply for program participation, nor commit to taking the entire series. You may take any number of courses to solve problems or satisfy general curiosity. Continuing Education Units (CEU's) are awarded for successful completion of any course, giving you a permanent record of your participation. The courses represent an opportunity to learn in a low-pressure non-commercial environment.

Performance Certificates are awarded for completion of any given course.

Achievement Certificates are awarded for successfully completing the Certificate Program requirements.

The certificate requirements are the following three:

1. Completion of four required courses:
 - Computer Literacy*
 - Concepts of Data Processing
 - Introduction to Computer Application Systems
 - Operating and Maintaining Software Systems
2. Completion of at least two elective courses. Elective courses are offered regularly and encompass a wide range of computer-related topics. Any course which is not from the above list, and is not a programming language, qualifies as an elective, including computer graphics courses.
3. Completion of at least two different programming language courses. Plans are to offer courses in BASIC, PASCAL, COBOL, and other languages over the next year. Languages are added as industry demand dictates.

*Computer literacy must be completed first or taken concurrently with another course. Because of its beginning nature, it may be omitted if a participant has a substantial computer background. A formal written request to omit the course should be submitted to the Division of Continuing Education if you plan to achieve a Certificate.

The course of study is structured so that participants may be able to complete the certificate program in about four semesters, but there is no requirement that it be completed in any given length of time. In all cases, successful course completion is determined by the instructor(s). There is now specially expanded access to out-of-class computer use, on a first-come basis, with software check-out. Details are given at class. Course tuitions are listed at the end of each course.

Registration for all courses is limited and on a first-come basis. **Preregistration is required** at least five days before the starting date for any course, but your earliest enrollment is recommended, as enrollment is limited by computer access.

Refunds for all certificate programs are given only before the start of a course, none later.

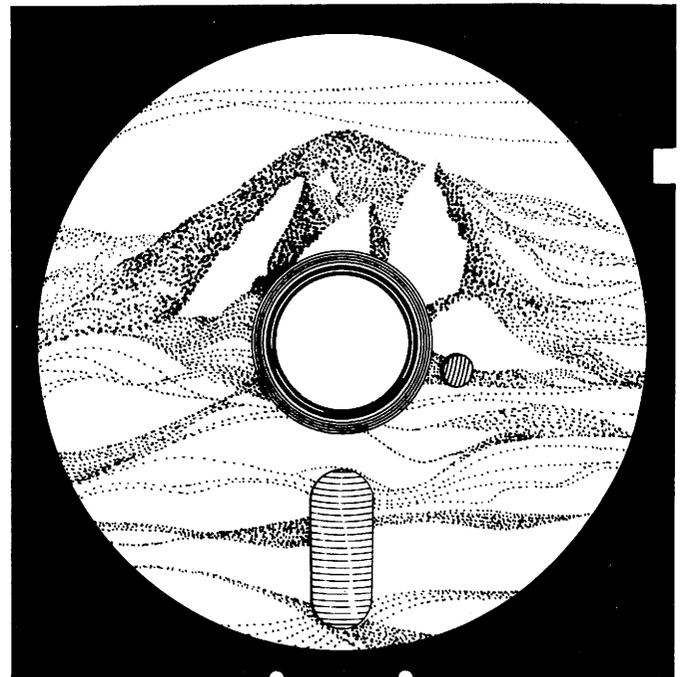
Course locations are listed with the course description where possible. If "Norlin S419" is listed with your course, you will receive details on class location and out-of-class computer use. If "University Computing Center Graphics Lab" is listed as your course location, this is at 3645 Marine St., South at Arapahoe and Marine or East at 30th and Marine.

Private, customized courses are also available for your organization. Flexible scheduling and targeted course content might make this approach a more effective method of training. Find out how your organization can benefit by calling (303) 492-5148, or outside metro Denver, 1-800-332-5839.

A Guide to Computer Applications Courses' Skill Levels Recommended

All courses are marked with a boxed skill level designation. It is recommended that you be at least at that skill level to take the course. This will optimize your learning. If you have questions about a course level, please call the Division of Continuing Education at 492-5148.

- Beginner** = no previous computer experience necessary — course assumes little or no computer knowledge.
- Novice** = elementary computer knowledge; taken **Computer Literacy** or some introductory courses.
- Intermediate** = Computer Literacy background plus recent involvement in programming/software applications.
- Specialized** = Intermediate skills but seeking specific applications procedures as in systems, documentation, or management.
- Advanced** = current MIS involvement, comfortable with most popular software applications, basic programming skills.



Certificate In Computer Applications

Courses by Starting Date, Spring 1986

Starts	Course	Faculty
Monday, January 27	Beginning Computer Aided Design	Philip W. Morrow
Monday, January 27	Computer Science 120-3. Introduction to Programming I	Tom Harrold
Wednesday, January 29	Beginning Computer Aided Design	Philip W. Morrow
Thursday, January 30	Beginning Computer Aided Design	Philip W. Morrow
Saturday, February 1	Framework: An Introduction to Interactive Software	Valerie Parker
Saturday, February 1	Computer Graphics Art I	Cynthia J. Rudy
Monday, February 3	Introduction to the IBM Personal Computer	Janet Goodrich-Spear
Monday, February 3	Computer Aided Design: Level I	Scott Crumal

Tuesday, February 4	*Computer Literacy	Scott Dixon
Tuesday, February 4	Using MS-DOS: Intermediate	Charles F. Whyte
Wednesday, February 5	Database Management: Applying DBase II/III	Clyde Getty
Wednesday, February 5	*Concepts of Data Processing	Randall S. Bloomfield, Pat Felz
Thursday, February 6	The Electronic Spreadsheet	Randall S. Bloomfield
Thursday, February 6	BASIC Programming	Steve Buck
Friday, February 7	Engineering Computing on the IBM PC	David E. Clough
Wednesday, February 12	Computer Aided Design: Level I	Philip W. Morrow
Thursday, February 13	Computer Aided Design: Level II	Daniel A. Myers
Saturday, February 15	Beginning Using Lotus 1-2-3	Nancy Mangun Van Wechel
Saturday, February 15	Computer Graphics Art I	Cynthia J. Rudy
Monday, February 17	Introduction to the IBM Personal Computer	Janet Goodrich-Spear
Monday, February 24	Computer Aided Design: Level II	Scott Crumal
Saturday, March 1	Introduction to Personal Telecommunications	Valerie Parker
Saturday, March 1	Lotus 1-2-3: Level II	Doug Serillo
Saturday, March 1	Computer Graphics Art: Level II	Cynthia J. Rudy
Monday, March 3	Beginning Word Processing: WordStar	Bruce Pollock
Monday, March 3	Programming in Pascal	Steve A. Johnson
Tuesday, March 4	Introduction to Local Area Networks	Larry G. Lankford
Friday, March 7	Introduction to UNIX	Carol J. Meier
Saturday, March 8	Using MS-DOS: Intermediate	Charles F. Whyte
Monday, March 10	C Programming	Carol J. Meier
Tuesday, March 11	Computer Aided Design: Level III - Customizing AutoCAD	Scott Crumal
Saturday, March 15	Using MS-DOS: Advanced	Charles F. Whyte
Saturday, March 15	Advanced DBase II/III Applications	Clyde Getty
Thursday, March 20	IBM/PC Enhancement Tools: Getting the Most From Your IBM Microcomputer	Ken Tagawa
Saturday, March 22	Computer Graphics Art: Level II	Cynthia J. Rudy
Monday, March 24	Beginning Word Processing: WordStar	Bruce Pollock
Monday, March 24	Beginning Using Lotus 1-2-3	Nancy Mangun Van Wechel
Monday, March 24	Computer Aided Design: Level I	Philip M. Kreiker
Thursday, March 27	Computer Aided Design: Level II	Philip M. Kreiker
Tuesday, April 1	Computer Literacy	Scott Dixon
Wednesday, April 2	Using MS-DOS: Advanced	Charles F. Whyte
Saturday, April 5	Using Lotus 1-2-3	Nancy Mangun Van Wechel
Saturday, April 12	Advanced Lotus 1-2-3: Creating Dynamic Business Graphics	Armstead Feland
Friday, April 18	Engineering Computing on the IBM PC	David E. Clough
Saturday, April 19	Advanced Lotus 1-2-3: Creating Dynamic Business Graphics	Armstead Feland
Wednesday, April 21	Intermediate WordStar	Bruce Pollock
Friday, April 25	An Introduction to CAD on Personal Computers	David E. Clough, William L. Wainwright, Philip W. Morrow
Saturday, April 26	Lotus 1-2-3: Level II	Doug Serillo
Saturday, May 3	DBase III/II for Programming	Clyde Getty
Friday, May 9	An Introduction to CAD on Personal Computers	David E. Clough, William L. Wainwright, Philip W. Morrow
Saturday, May 31	Advanced WordStar	Bruce Pollock

* required certificate courses

BCAC-90
Computer Literacy

Beginner

This course focuses on exactly what computers are and how they work, as well as their various uses and limitations. Sessions include a description of software available for today's computers, how computers influence our changing society, and active demonstrations of applied computer technology. Time will be made available for hands-on experience, learning some simple programming skills using different computer systems, and a wide variety of popular computer applications. Scott Dixon, B.S.

Section I: Tuesdays, February 4 and 11, 6:30-8:30 p.m. Lab sections (choose one — please specify at registration):

Lab Section A: Tuesdays, February 18-March 18, 6-8 p.m., and Saturday, March 22, 10:15 a.m.-12:15 p.m.

Lab Section B: Tuesdays, February 18-March 18, 8-10 p.m., and Saturday, March 22, 1-3 p.m.

Section II: Tuesdays, April 1 and 8, 6:30-8:30 p.m. and Lab sections (choose one — please specify at registration):

Lab Section C: Tuesdays, April 15-May 13, 6-8 p.m., and Saturday, May 17, 10:15 a.m.-12:15 p.m.

Lab Section D: Tuesdays, April 15-May 13, 8-10 p.m., and Saturday, May 17, 1-3 p.m.

Both Sections: 2 lecture sessions, 6 lab sessions, 1.6 CEUs. University Computing Center 123. \$80.

BCAC-91
BASIC Programming

Novice

BASIC (Beginners All-purpose Symbolic Instruction Code) is perhaps the easiest language to learn for programming a computer. Most computers are capable of working with BASIC. Students will start at the very beginning and work up to using searching and sorting methods, developing useful data structures, and applying general programming skills. Hands-on experience will be emphasized. The text *BASIC: Fundamentals and Styles*, by Quasney and Maniotes, is available at the University Book Center, UMC 10. Steve Buck, B.S. Thursdays, February 6-April 17 (no class session March 27), 7-9:30 p.m. 10 sessions, 2.5 CEUs, Ketchum 120. \$125.

BCAC-89
Programming in Pascal

Intermediate

Pascal is a commonly used and versatile programming language, especially in business applications. This course presents the principal features of Pascal, including functions and procedures, user-defined data types, and input/output techniques, emphasizing structured techniques. Topics include conventional Pascal compilers, but in-class computer time utilizes Turbo Pascal. Bring to class a 5¼-inch, double-sided/double-density diskette, available at the University Book Center, or most computer stores. Steven A. Johnson, B.S. Mondays, March 3-May 12 (no class session March 24), 7-9:30 p.m. 10 sessions, 2.5 CEUs. Ketchum 120. \$125.

University Credit Option

Computer Science 120-3
Introduction to Programming I

An introductory credit course in computer programming covering computer fundamentals, the elements of a structured programming language, and the basic techniques for designing algorithms to solve practical problems. The programming language PASCAL is used as a vehicle for expressing these concepts. Students are required to attend two lectures per week and one recitation section. Since this is a rigorous laboratory course, students should plan to spend at least 10 additional hours per week at the Computing Center. Prerequisite: three years of high school mathematics including trigonometry and algebra. Tom Harrold, Ph.D. Mondays and Thursdays, January 27-May 8, 7:15-8:45 p.m. Also, recitation section Mondays, starting February 3, 6-7 p.m. 3 credit hours. Engineering Center CR 0-36. \$187.

BCAC-48
C Programming

Intermediate

This C language course is designed to teach programmers and applications personnel effective use of the C language, especially in a UNIX environment where the rich set of tools provided greatly enhances computing capabilities. All C language constructs and capabilities are presented, as well as UNIX tools directly related to the support of C programming. Topics include cover data types, operators and expressions, control flow, functions and program structure, and standard I/O. Hands-on exercises are supplemented by lectures and demonstrations. Prerequisites: some programming experience is required as C is not a beginner's language. Fluency in almost any language is adequate, although PASCAL, ALGOL, or a similar language is preferable. Participants should be comfortable logging in and editing in a UNIX-like environment. Carol J. Meier, M.S. Monday-Thursday, March 10-13, 6-9:30 p.m. 4 sessions, 1.4 CEUs. Location given at registration. \$325.

Avoid the Registration Crunch
Phone-In Noncredit — Certificate Registration

January 13 — February 21

MasterCard — VISA Only

443-7968

443-8979

443-9973

For other course information:

492-5148

Make our registration office as close as your telephone.

Complete registration information, page 65.

Before January 13, after February 21, call

492-5148.

BCAC-77
**Introduction to the
IBM Personal Computer**

Beginner

This intensive course covers important computer vocabulary, architecture, and configurations of IBM microcomputer systems. Special emphasis is placed on the IBM PC, including hands-on familiarization, user commands, and DOS functions. Introduction to uses of BASIC as a programming language and simple software programs are included. Much of this course is conducted on IBM microcomputers and enrollment is strictly limited. This course is intended for those who have recently purchased, or will soon use on the job, IBM-PC or IBM-XT hardware. Especially recommended for those needing a review of the IBM DOS operating system. Bring to class one double-sided/double-density 5¼-inch diskette. Janet Goodrich-Spear, M.A.

Section I: Mondays, February 3 and 10, 6:30-9:30 p.m.

Section II: Mondays, February 17 and 24, 6:30-9:30 p.m.

Both Sections: 2 sessions, .6 CEUs. Norlin Library S419 (directions given at registration). \$50.

BCAC-47
Using MS-DOS: Intermediate

Intermediate

MS-DOS, or PC-DOS as it is known by IBM, is the most widely used personal computer operating system for business applications. This course reviews the most-often used DOS commands and utilities, including the advanced features of DOS 2.X. Topics include: Use of Edlin line editor, writing system configuration and batch files, DOS 2.X enhancements, and disk/file comparisons and checking. Time reserved for special questions and problems. Charles F. Whyte, B.A.

Section I: Tuesdays, February 4-18, 7-9:15 p.m. 3 sessions.

Section II: Saturday, March 8, 10:15 a.m.-5 p.m. One all-day session.

Both Sections: .7 CEUs. Norlin Library S419 (directions given at registration). \$50.

BCAC-45
Using MS-DOS: Advanced

Specialized

MS-DOS, the standard for PC operating systems, has more power and features than most users know. This course, conducted on IBM-PC/AT hardware, examines practical utilities and features under DOS 3.X, including advanced EDLIN, backup/restore, CHKDSK, recover, debug, link, and mode commands. Special attention will be given to the ANSI programming commands, color, and advanced batch file programming. A review of hardware interfaces and communications protocols will also be addressed. This course is intended for those flexibly using the MS-DOS operating system, or who have completed BCAC-47 Using MS-DOS: Intermediate, and require a more thorough understanding to get the most from their system. Charles F. Whyte, B.A.

Section I: Saturday, March 15, 9 a.m.-4:30 p.m. One all-day session.

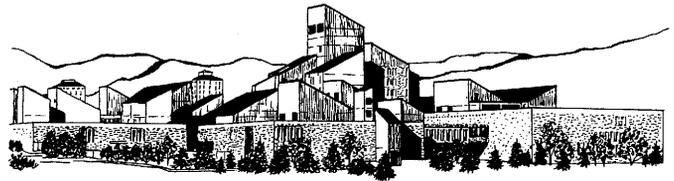
Section II: Wednesdays, April 2-16, 7-9:30 p.m. 3 sessions.

Both Sections: .7 CEUs. University Computing Center Graphics Lab, Room 137. \$65.

BCAC-42
**IBM PC Enhancement Tools:
Getting the Most From Your IBM Microcomputer**

Intermediate

Learn about the ways to increase dramatically the power and functionality of your IBM PC (XT and AT) microcomputer. The marketplace abounds with hardware and software tools — RAM disk, print spooling, DOS enhancers, spreadsheet auditor, file recovery (ever lose a file?), keyboard macros and more! As our applications (databases, spreadsheets) have grown larger, the finite limits of the IBM PC become an increasingly real barrier. Frustrated by the gymnastics of integrating data and text? In a two-hour session, participants in this class will come away with the decision-making power and marketplace overview needed to make more productive and cost-effective use of the personal computer. Ken Tagawa, Ph.D. Thursday, March 20, 7-9 p.m. 1 session, .2 CEUs. University Computing Center 123. \$25.



BCAC-93
Concepts of Data Processing

Intermediate

Introduction to the advanced concepts and terminology of computerized business data processing. Major topics are computer hardware (the central processing unit, input/output devices, main-frame, mini-microcomputer review, and telecommunications systems), computer software support (documentation, program and advanced system design). Career opportunities, the future of computers in society, and interfacing with computer programmers are discussed. Enrollment is limited. Pat Felz, M.A. and Randy Bloomfield, M.E. Wednesdays, February 5-April 16 (no class session March 26), 7-9 p.m. 10 sessions, 2 CEUs. University Computing Center 123. \$125.

BCAC-43
**Introduction to Local Area
Networks (LAN)**

Intermediate

This class is intended to give a thorough understanding of the value and practical possibilities of Local Area Networks. An in-depth survey of the characteristics of the major LAN's available today and LAN methods and standards will be included. The class is targeted at those who are considering installing a LAN or those who simply need to develop a familiarity with this rapidly growing method of interconnecting Personal Computers. Larry G. Lankford, M.S. Tuesdays, March 4-April 15, 7-9 p.m. 6 sessions, 1.2 CEUs. University Computing Center 123. (Note: Sessions on April 1, 8, & 15 are at Business 208). \$125.

BCAC-79**The Electronic Spreadsheet****Novice**

This class is oriented around the use of today's modern micro-computer as an aid in practical accounting. Designed for the complete novice, the class serves as an introduction to the world of computer spreadsheet programs. Topics of discussion and demonstrations will include the Visicalc series, Multiplan, Lotus 1-2-3, and graphics generation from integrated software. Most of the course is hands-on lab time. Lab time will emphasize a comparative analysis of spreadsheet programs, as well as Sideways, on the IBM Personal Computer and will take users from their first keystroke through entry of a number of sophisticated models. If you're considering spreadsheet software purchases, or curious about what's really out there, this course is an excellent learning opportunity. Randall S. Bloomfield, M.E. Thursdays, February 6-April 3 (no class session March 27), 6-8 p.m. 8 sessions, 1.6 CEUs. Norlin Library S419 (directions given at registration). \$95.

**BCAC-71****Introduction to Personal Telecommunication****Novice**

This class is designed for microcomputer users who are interested in learning how to use a personal computer to expand their horizons. The class covers the basics of how the computer may be used to send and receive information over the telephone lines. The presentation is as nontechnical as possible, but covers the relevant aspects of computer hardware and software. In addition, special attention will be given to potential uses of modern-based telecommunications by providing on-line demonstrations of a number of systems, from "The Source" to "underground" bulletin boards. Valerie Parker, M.Ed. Saturday, March 1, 9 a.m.-4 p.m. One all-day session, .6 CEUs. University Computing Center 123. \$30.

BCAC-66**Framework: An Introduction to Interactive Software****Intermediate**

What is interactive software? By using Framework, a new interactive software package by Ashton-Tate, this class will explore the new realms of this emerging technology in microcomputing. The use of "framing" technology gives Framework a powerful new way of creating and manipulating ideas, words, numbers, and graphics. Framing allows you to nest, resize, and relocate information anywhere on the screen. With Framework, you no longer need to stop word processing to work on a database file, you can use as many frames as you are capable of tracking. This course will explore and teach the fundamentals of interactive software. Get a start on the next generation of software. Topics include the new framework upgrade. Participants should have a good working knowledge of the IBM PC or compatibles. Valerie Parker, M.Ed. Saturday, February 1, 10:15 a.m.-5 p.m. One all-day session, .7 CEUs. Norlin Library S419 (directions given at registration). \$70.

BCAC-76**Beginning Using Lotus 1-2-3****Intermediate**

The first portion of this two-day course is a general overview of the capabilities and uses of 1-2-3, giving the student a basic knowledge of the 1-2-3 commands and an introduction to various modeling techniques and practices. The second segment of the course is a workshop, designed to give students enough practice to feel comfortable working with 1-2-3 by completing exercises and following demonstrations of graphics and database functions. Because of the many capabilities of 1-2-3, it is impossible to cover every facet of the package in the limited time; however, enough material can be presented in two days to give the student a thorough understanding of the power of 1-2-3 and to build practical applications. Class size is strictly limited. Bring to class a 5¼-inch double-sided/double-density diskette. Nancy Mangun Van Wechel, B.S.

Section I: Saturdays, February 15 and 22, 10:15 a.m.-5 p.m. Two all-day sessions.

Section II: Monday-Friday, March 24-28, 1-4 p.m. 5 sessions.
Section III: Saturday, April 5 and 12, 10:15 a.m.-5 p.m. Two all-day sessions.

All Sections: 1.4 CEUs. Norlin Library S419 (directions given at registration). \$99.

BCAC-74**Lotus 1-2-3: Level II****Intermediate**

In a single integrated package, Lotus 1-2-3 combines graphics, a sophisticated electronic spreadsheet, and a database management program. This course is intended for those who are familiar with parts of the package or who have previously completed Using Lotus 1-2-3 (BCAC-76) and want to master the more advanced applications involved. This hands-on, one-day course features database applications, shortcuts, graphics display, and macros. Bring to class a 5¼-inch double-sided/double-density diskette. Class size is strictly limited. Doug Serillo, B.A.

Section I: Saturday, March 1, 10:15 a.m.-5 p.m.

Section II: Saturday, April 26, 10:15 a.m.-5 p.m.

Both Sections: One all-day session, .7 CEUs. Norlin Library S419 (directions given at registration). \$70.

BCAC-46**Advanced Lotus 1-2-3:
Creating Dynamic Business Graphics****Specialized**

Business graphics can be a powerful way of making data meaningful and grasping quickly the overall concept of an organization's various functions or financial data. This course is intended for those familiar with the Lotus 1-2-3 software, who wish to achieve the full potential of its business graphics abilities. Topics include: recent Lotus upgrades; Color Plotting — plotter/printer interfaces; sophisticated macro generation — macros in graphics. Lotus graphics and enhancing graphics will be covered extensively. Participants are welcome to bring unique Lotus 1-2-3 questions and problems to class. Also covered will be the slide generation of graphics and a presentation-quality slide of data covered will be made in class. Especially helpful for those who want to prepare business or financial data in a presentation-quality format. Certificate in Computer Applications course, Lotus 1-2-3: Level II (BCAC-74), or a strong basic familiarity with Lotus 1-2-3 software are recommended prerequisites. Armstead Feland, M.S.E.E.

Section I: Saturday, April 12, 9 a.m.-4:30 p.m.

Section II: Saturday, April 19, 9 a.m.-4:30 p.m.

Both Sections: One all-day session, .7 CEUs. University Computing Center Graphics Lab, Room 137. \$85.

BCAC-75**Database Management:
Applying dBase II/III****Intermediate**

With today's wealth of available information, there is an overwhelming need to organize and retrieve data for decision making. DBase II and III are a powerful and productive data management systems specifically intended for this use. Participants in this class learn the concept of a database, the many different ways of organizing, accessing, and reporting information, and the way to develop applications for specific needs. Topics include special applications of dBase III. Bring to class two double-sided/double-density 5¼-inch diskettes, available at the University Book Center. Clyde Getty, B.S. Wednesdays, February 5-March 5, 6:30-9:30 p.m. 5 sessions, 1.5 CEUs. Norlin Library S419 (directions given at registration). \$99.

BCAC-70**Advanced dBase II/III
Applications****Specialized**

This course is designed around the more advanced features of the powerful dBase II and dBase III software. Participants must have some programming background, as well as familiarity with programming in dBase, or have taken Database Management: Applying dBase II (BCAC-75). Topics include multiple files, using functions, total system design, and time permitting, automatic command file generation. Bring to class a double-sided/double-density 5¼-inch diskette. Clyde Getty, B.S. Saturday, March 15, 10:15 a.m.-5 p.m. One all-day session, .7 CEUs. Norlin Library S419. (Directions given at registration.) \$70.

BCAC-85**dBase III/II for Programming****Specialized**

This course gives the opportunity to use the powerful dBase III (and dBase II) software for special custom applications. Emphasis is on dBase III, but dBase II users will be accommodated. Course is recommended for the experienced dBase user or those who have completed BCAC-70 Advanced Applications course. Some programming experience is recommended, as well as familiarity with dBase commands. Bring to class a double-sided/double-density 5¼-inch diskette. Clyde Getty, B.S. Saturday, May 3, 10:15 a.m.-5 p.m. One all-day session, .7 CEUs. Norlin Library S419 (directions given at registration). \$75.

BCAC-78**Beginning Word Processing:
WordStar****Novice**

Word processing is a powerful tool for students, faculty, authors — anyone who writes. It is a required skill for secretaries. WordStar is the most widely used word processing program — the program to which other word processors are compared. The IBM Personal Computer and its clones are the most popular microcomputers sold. This course will provide the beginner with enough hands-on experience with WordStar and the IBM operating system to prepare standard letters, term papers, and manuscripts. No previous word-processing experience required. Please bring to class two double-sided/double-density 5¼-inch diskettes, available at the University Book Center, UMC 10, or at most computer stores. Bruce Pollock, Ph.D.

Section I: Mondays, March 3-April 14 (no class session March 24), 6-8 p.m. 6 sessions.

Section II: Monday-Friday, March 24-28, 9-11:30 a.m. 5 sessions.

Both Sections: 1.2 CEUs. Norlin Library S419 (directions given at registration). \$99.

BCAC-65**Intermediate WordStar****Intermediate**

We have found people using WordStar require some time to become comfortable with their basic word processing skills. Then they want to perform more complicated operations — preparation of tables, complex print formulas, columns in newsletters, and repetitive computer operations. They also discover they need ways to use the program more effectively. This is the course for people who already know how to copy files and disks using DOS, and open and edit simple WordStar files. Please bring to class two double-sided/double-density 5¼-inch diskettes, available at the University Book Center, UMC 10, or at most computer supply stores. Bruce Pollock, Ph.D. Mondays, April 21-May 12, 6-8 p.m., and Saturday, May 10, 10:15 a.m.-12:15 p.m. 5 sessions, 1 CEU. Norlin Library S419 (directions given at registration). \$70.

BCAC-73
Advanced WordStar

Intermediate

WordStar integrates with other programs to prepare form letters (MailMerge), check spelling (SpellStar), and compile indexes of books and other documents (StarIndex). This course is for people who are comfortable with the contents of the WordStar manual, but who want to move on to more complex word processing operations, and to customize their copy of WordStar to save time and improve efficiency. Please bring to class two double-sided/double-density 5¼-inch diskettes, available at the University Book Center, UMC 10, or at most computer supply stores. Enrollment is limited. Bruce Pollock, Ph.D. Saturday, May 31, 10:15 a.m.-5 p.m. One all-day session, .7 CEUs. Norlin Library S419 (directions given at registration). \$70.

BCAC-49
Introduction to UNIX

Intermediate

UNIX is more than just an operating system. That is why its use has increased dramatically in the past few years. Experts are forecasting that the tremendous divergence in hardware and proprietary software will be reversed by the use of UNIX. The goal of the course is to gain familiarity with the UNIX philosophy and environment, as well as a comfortable working knowledge of its capabilities. The content includes philosophy, commercial history, terminology, facilities, file system structure, basic commands, editor tutorial, common and useful tools, conventions, shell features, and utilities. The format combines lecture, demonstration, hands-on exercises, workshops, and discussion. Prerequisites: elementary computer knowledge, some background in an operating system (MS-DOS, CP/M, etc.). Carol J. Meier, M.S. Friday and Saturday, March 7 and 8, 9 a.m.-5:30 p.m. Two all-day sessions, 1.4 CEUs. Location given at registration. \$325.

BCAC-68
**Engineering Computing
on the IBM PC**

Advanced

The IBM PC has become the standard of the personal computer market; yet its use in engineering applications is still in its infancy. Explore the capabilities and limitations of the PC for engineering computing during this two-day course. Learn about the software tools which can facilitate your numerical work, and improve your own personal computer skills.

- an intensive, hands-on short course
- a practical seminar for engineering professionals
- learn what the PC can and cannot do
- take away useful applications software

This seminar will take place in a classroom equipped with an IBM PC for each attendee. Necessary software packages will be provided for use during the course. During workshop periods, experienced aides will be available to provide you with individual assistance. Much material is covered in two days. However, most concepts are illustrated live, and you will carry out many of the methods yourself. This experience, along with the course documentation, will provide you with a lasting benefit from taking the course. Course fee includes lunches both days. David E. Clough, Ph.D.

Section I: Friday, February 7, 8:30 a.m.-5:30 p.m., and Saturday, February 8, 10 a.m.-5:30 p.m.

Section II: Friday, April 18, 8:30 a.m.-5:30 p.m., and Saturday, April 19, 10 a.m.-5:30 p.m.

Both Sections: Two all-day sessions, 1.4 CEUs. Location given at registration. \$325.

Computer Graphics
Computer Aided Design

Once possible only on large and expensive minicomputers and mainframe systems, recent advances in hardware and software have made designing and drawing on a microcomputer a reality. Micro-based computer graphics are rapidly becoming viable and productive tools for use in many disciplines. The listing that follows is a sampling of the current, most prevalent applications:

- Architectural Design
- Drafting
- Engineering Drawings for Electrical, Mechanical, Civil and Chemical Applications
- Plots
- Fine Arts
- Commercial Design
- Interior Design
- Robotics
- Financial and Business Charts

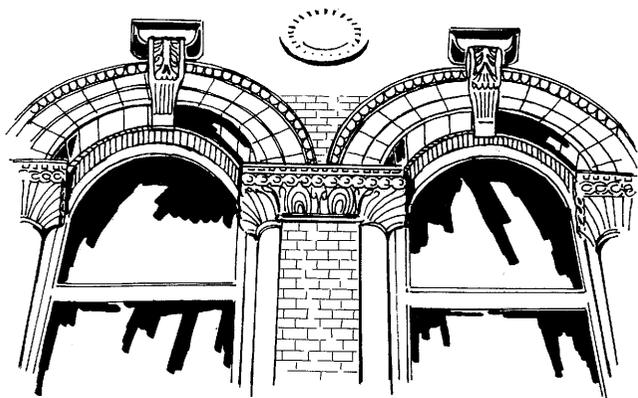
The number of possible applications is infinite and it is estimated that only a small percentage have yet been discovered.

Gaining proficiency on a microcomputer-based graphics system will provide you with the skills to increase productivity and produce superior results without design errors. Additionally, as a proficient microcomputer-based graphics system user, you can learn to use a larger conventional system in far less time.

About the Program

These computer graphics courses have been developed to provide participants with extensive hands-on experience. The classroom is a laboratory equipped with an IBM PC/AT microcomputer, with plotter and printer for each station, so course time can be utilized to the maximum extent. The participant/instructor ratio is small to facilitate an effective learning experience. Participants also have access to the computer lab and software outside of class time to that new skills can be practiced.

Bring to the first class a double-sided/double-density diskette. For most courses, you will need to buy a plotter pen (for HP 7470 plotter) and 8½ x 11" plotter paper for the second class session. Cost is about \$4. Details on these added supplies will be given at the first class session.



BCAD-38

Beginning Computer Aided Design

Novice

Once associated with extensive programming knowledge and large, expensive computer systems, Computer Aided Design (CAD) is now an affordable tool for anyone interested in drafting and design. This intensive, two-session course covers the basics of systems start-up and a review of potential microcomputer-based applications. Topics include:

- Overview of CAD Applications and Peripherals
- Overview of AutoCAD Software
- Applications in Engineering, Design, Drafting, and Architecture
- Highlights of Upcoming CAD Level I and II courses
- The Impact and Future of CAD

A technical background is not required, but some familiarity with microcomputers is helpful. This course is highly recommended for those who have no CAD background, but maintain a desire to learn more about this rapidly expanding field.

Who Should Attend: Especially helpful for those who wish to enroll in, or learn more about, upcoming courses in computer graphics or Computer Aided Design. Also for those who interface with CAD personnel and need basic information.

Philip W. Morrow, B.S.

Section I: Monday and Tuesday, January 27 and 28, 7-9:30 p.m.

Section II: Wednesdays, January 29 and February 5, 7-9:30 p.m.

Section III: Thursdays, January 30 and February 6, 7-9:30 p.m.

All Sections: 2 sessions, .5 CEUs. University Computing Center Graphics Lab, Room 137. \$55.

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BCAD-36

Computer Aided Design: Level I

Novice

Using AutoCAD software and the IBM Personal Computer AT, this intensive beginning course will cover the capabilities of microcomputer-based Computer Aided Design (CAD) in general and introduces AutoCAD in particular. Drawing set-up, creating and editing points, lines, circles, arcs, solids, traces and text, work with blocks, hatching, colors and layers will help students create, edit, and plot their individual drawings. Specific topics include:

Loading AutoCAD

- disk management
- file naming conventions
- main menu options

Drawing Editors

- x,y coordinate system, continuously updated
- root menus, flip screens, and help functions

New Drawing Set-Up

- special commands of LIMITS, GRID, AXIS, and SCALING

Text Specifications and Editing Commands

- fonts and text style specifications
- MIRROR commands
- dynamic dragging
- FILLETS and curve contours

Display Commands

- ZOOM, PAN, FILL, REGENAUTO, SNAP, BLOCK, ARRAY Commands

Producing Hardcopy

- scale the annotation, not the drawing
- preparing the plotter
- pen number and speed assignments
- changing specifications

Layering

- creating new, and changing specified, layers
- specifying layer colors
- specifying line types and new LINETYPES: LTSCALE

Utility Commands

Required text is *Inside AutoCAD*, by Raker and Rice, available at the University Book Center, UMC 10.

Who Should Attend: Anyone involved, or who plans to be involved, in technical drawing or drafting. Especially helpful for architects, engineers, or designers who plan on upgrading their work, or need the skills of computerizing drawing/text manipulation. Also for those who want to get involved in the dynamic CAD field. There is virtually no limit to the kinds of drawing applications you can prepare using the skills covered in this course.

Section I: Scott Crumal, B.S.E.E. Mondays and Tuesdays, February 3-18, 6:30-9:30 p.m. 6 sessions.

Section II: Philip W. Morrow, B.S. Wednesdays, February 12-March 19, 6:30-9:30 p.m. 6 sessions.

Section III: Philip M. Kreiker, M.S.E.E. Monday, Tuesday, Wednesday, March 24, 25, 26, 9 a.m.-4 p.m. 3 all-day sessions.

All Sections: 1.8 CEUs. University Computing Center Graphics Lab, Room 137. \$215.

BCAD-34**Computer Aided Design: Level II****Intermediate**

This course is for those seeking advanced drafting capabilities and expert instruction in furthering their CAD knowledge and skills. Semiautomatic dimensioning, object snap, all dimensioning commands, isoplanar snap-grids, 3-D, and free-hand sketching are all important components of this level II course. Course outline includes:

Semiautomatic DIMensioning

- linear dimensions
- angular dimensions
- dimensioning variables

Object Snap and Aperture Commands**Calculating specific characteristics of an entity or drawing**

- 3-D drawings

Highly useful, but less frequently used commands

- compatibility with other software

Isometric Drawing Aids

- ISOPLANE command
- control E to switch planes

STATUS Utility

- purpose and components overview

SKETCHing**Attributes**

- ATTDEF, CHANGE, ATTEDIT, ATTEXT

Recommended prerequisites are Computer Aided Design: Level I, as previously listed or hands-on AutoCAD experience that equals the CAD: Level I course outline.

Who Should Attend: All those who want to extend their knowledge and skills in CAD beyond basic levels. Especially helpful for engineers, architects, and designers and those seeking to advance computer applications in their fields. The drafting and structure skills covered in this course are also easily transferred to a wide variety of other fields.

Section I: Daniel A. Myers. Thursdays, February 13-March 13, 6:30-9:30 p.m. 5 sessions.

Section II: Scott Crumal, B.S.E.E. Mondays and Tuesdays, February 24-March 10, 6:30-9:30 p.m. 5 sessions.

Section III: Philip M. Kreiker, M.S.E.E. Thursdays, March 27, 8 a.m.-5 p.m., and Friday, March 28, 9 a.m.-5 p.m. Two all-day sessions.

All Sections: 1.5 CEUs. University Computing Center Graphics Lab, Room 137. \$185.

BCAD-32**Computer Aided Design: Level III - Customizing AutoCAD****Specialized**

This course is for professionals who are customizing a microcomputer-based CAD system to quickly accomplish routine tasks and easily make prescribed drafting/drawing modifications, specifically based on AutoCAD systems. In this class the keyboard is used mostly for editing text, while peripherals are used extensively. Generating slide shows and presentation-quality hardcopy are further aspects of this course. Emphasis is on tailoring your system, or a proposed system, for individualized applications. Course outline includes:

Custom Libraries and Menus

- creating sets of shapes, symbols, and/or drawings, text
- MENU command

Creating Text Fonts

- compiling shape/font styles
- modifying text fonts

Adding Commands to AutoCAD**Creating SCRIPT files**

- SCRIPT and RSCRIPT commands
- DELAY and RESUME commands

Presentation-Quality Materials

- creative presentations and future options

Recommended prerequisites are Computer Aided Design Level II or very extensive AutoCAD use.

Who Should Attend: Lead draftspersons, lead engineers, those with specifics of unique applications for CAD. Very helpful for nearly any advanced user seeking to get the greatest benefit from their AutoCAD based system. Scott Crumal, B.S.E.E. Tuesdays and Mondays, March 11, April 1, 6:30-9:30 p.m. 5 sessions, 1.5 CEUs. University Computing Center Graphics Lab, Room 137. \$185.



BCAD-24
Computer Graphics Art I

Novice

This course is for anyone involved in graphic art or design who wants to develop a hands-on understanding of computer graphics. A comprehensive overview of the latest technical advanced in the field of computer graphics will be coupled with in-class microcomputer applications, emphasizing the use of the computer as a creative tool. Topics include:

- Creative use of Paint, Airbrush, and Fill Media
- Effective Font Selection and Mixes
- Dynamic Color Manipulations

A brief history of computer graphics will be covered, followed by a video presentation of state-of-the-art work by leading computer companies and artists. In-class projects include using the computer to design logos, ads, brochures, and other print projects for portfolio development. The class will manipulate images on the screen to produce finished images from sketches or rough art. The course is designed to prepare students for the drawing board of the future, the computer. Please note that this course will not deal extensively with Computer Aided Design (CAD) or engineering graphics topics. Course is recommended for those desiring basic computer graphics skills, oriented toward professional advancements. Also recommended for those involved in graphic presentations or art displays, eager to develop new skills or explore microcomputer-based graphic capabilities. Course also counts as elective credit in Certificate in Commercial Design. Cynthia J. Rudy, B.F.A.

Section I: Saturdays, February 1 and 8, 9 a.m.-4:30 p.m.

Section II: Saturdays, February 15 and 22, 9 a.m.-4:30 p.m.

Both Sections: Two all-day sessions. 1.3 CEUs. University Computing Center Graphics Lab, Room 137. \$125.

BCAD-22
Computer Graphics Art: Level II

Intermediate

For those familiar with computer functions based on Computer Graphics Art I, this course advances to expanded professional graphics applications skills. Hands-on time will be spent solving design problems using several complex images combined into one layout. Hardcopy options are covered extensively. The course is primarily directed to the artist or designer seeking to include computer graphics into their career, but is helpful for anyone wishing to develop expertise in this dynamic field. Portfolio preparation and presentation skills are covered, as well as interview/presentation role-playing oriented toward successful interactions with prospective clients or employers. Course is designed for anyone considering entering fields requiring computer graphics knowledge, preferably currently active in the art/design professions. Participants should be comfortable with basic computer graphics functions and should have taken Computer Graphics Art I or some equivalent. Course also counts as elective credit in Certificate of Commercial Design. Cynthia J. Rudy, B.F.A.

Section I: Saturdays, March 1 and 8, 9 a.m.-4:30 p.m.

Section II: Saturdays, March 22 and April 5 (no class session March 29), 9 a.m.-4 p.m.

Both Sections: Two all-day sessions, 1.3 CEUs. University Computing Center Graphics Lab, Room 137. \$135.

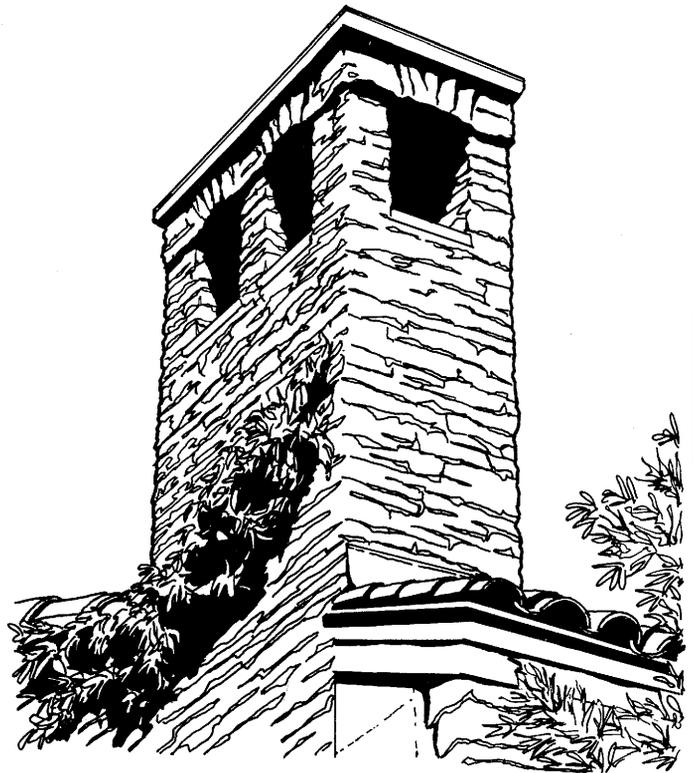
BCAC-43
An Introduction to CAD on Personal Computers

Intermediate

Computer aided drafting/design (CAD) has recently become available for use with personal computers. This intensive short course is designed to provide timely experience using CAD on PCs for those who currently have no access to computer aided design tools and need to know how an affordable entry into this field will perform. The course will also be useful to those who are now using large complex CAD systems and want to assess the performance versus cost of PC-based tools. No in-depth experience in CAD or computer systems is required. David E. Clough, Ph.D., William L. Wainwright, Ph.D., Philip W. Morrow, B.S. Section I: Friday and Saturday, April 25 and 26, 8:30 a.m.-5:30 p.m.

Section II: Friday and Saturday, May 9 and 10, 8:30 a.m.-5:30 p.m.

Both Sections: Two all-day sessions, 1.4 CEUs. University Computing Center Graphics Lab, Room 137. \$175.



Noncredit/Certificate Registration
Phone-In Registration



443-7968
443-8979
443-9973



MasterCard/VISA
Details on page 65.

Certificate In Commercial Design

Are you interested in the growing field of commercial design? Are you already involved in some aspect of illustration, art, or publishing, and are you ready to expand your expertise? Whether you are a new or continuing student in the field, this series of weekend workshops that leads to a Certificate in Commercial Design may be what you need for your professional development.

The **Certificate in Commercial Design** is a sequential program of short intensive courses presented in a compact format of workshops to accommodate the busy schedule that professionals share, and the needs of those interested in entering the field. Courses cover both the basics and the advanced developments in commercial art today. Careers in book design, advertising, cartooning, broadcasting, and a wide number of other areas will be explored during the program. Many of the courses pay particular attention to entry-level job opportunities, the construction and maintenance of professional portfolios, and the basics of job-hunting and preparing for interviews. Instructors are all "state-of-the-art," active professionals in touch with the latest changes in the commercial design field.

The Certificate requirements are threefold:

1. Successful completion of the four required courses:
 - * The Commercial Artist: Design, Layout, and Paste-up
 - * Commercial Art II
 - * Professional Illustration Techniques
 - * The Artist Goes to Market
2. Successful completion of four elective courses. These optional courses consist of several that are offered on a regular basis and many others that are periodically introduced to accommodate updates and changing trends in commercial design.
3. Successful completion and professional review of your own fully developed portfolio, scheduled by appointment.

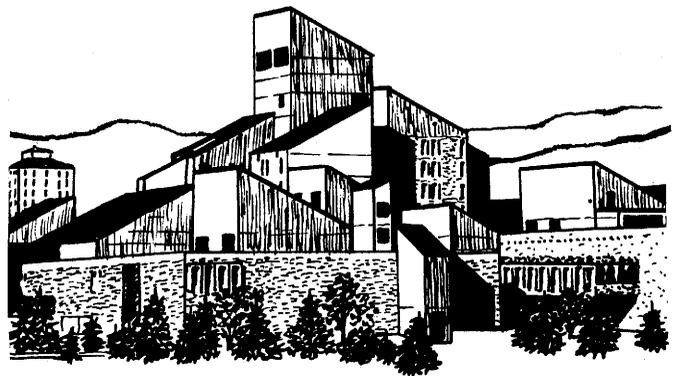
You need not formally apply for any program nor must you be seeking a certificate to enroll. Conversely, you need not stop participation in the courses once you have achieved certification. Many people take only a few courses to update certain skills and many others take several courses beyond requirements to advance their professional skills.

Continuing Education Units and performance certificates are awarded for each class. A Continuing Education Unit is the national standard for colleges and universities to record 10 hours of university-level noncredit course participation. CEUs are awarded for completion of each course, generating a permanent record for you. A transcript copy is available upon request, without fee.

The **course of study** is scheduled so that participants may complete all requirements within three semesters. The four required courses are offered at least once a year, as well as several elective courses.

Course tuitions are listed at the end of each course description. Tuition varies depending on materials used, length of time, and other course-related expenses. Please remember that in all certificate courses there are no refunds once the course has started; full refunds are granted if requested before that time. Course enrollments are limited and preregistration is required. Please note that **refunds** are given only before the course starts, none later.

Bring to class a pencil, ruler, fineline pen, exacto knife, note paper, tracing paper, and bristol board (15"x20" approx.) All other materials and a workbook are provided. While portfolios need not be brought to class, it is of great benefit if during the course attenders have some access to their portfolios or work examples.



Certificate In Commercial Design

Courses by Starting Date, Spring 1986

Starts

Saturday, January 25
Monday, January 27
Saturday, February 1
Saturday, February 8
Monday, February 10
Saturday, March 1
Saturday, March 8
Saturday, April 5

* = required Certificate courses

Course

*The Commercial Artist I: Design, Layout, Paste-up
Professional Hand Lettering and Calligraphy
Image Making: Illustration in the 80's
*Commercial Art II
*The Artist Goes to Market
Technical Perspective and Rendering Techniques
The Advertising Copywriter: A Writing Techniques Workshop
Commercial Photography Techniques for Commercial Artists

Faculty

Jill Thayer O'Hara
Jill Thayer O'Hara
William Teitelbaum
Eric Teitelbaum
Eric Teitelbaum
Roy Walden
Michelle Martino
Roy Walden

BCDA-81

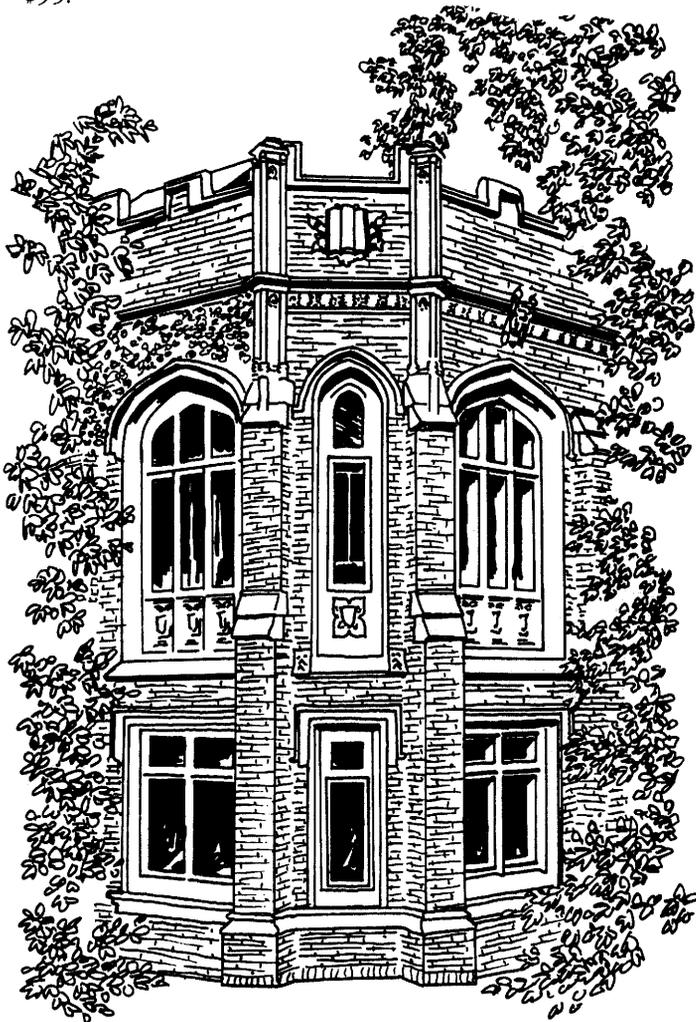
The Commercial Artist I: Design, Layout, Paste-Up

This course introduces important commercial art techniques to the beginner, stressing the "how-to's" of entering the commercial art/graphic design profession. It covers rough compositions, layout, type selection, camera-ready art production, and basic illustration processes used by the artist in advertising agencies; book, magazine, and newspaper publishing departments; and in graphic design firms. This course is also a helpful review of techniques for the professional active in the field. Jill Thayer O'Hara. Saturday and Sunday, January 25 and 26, 9 a.m.-5 p.m. Two all-day sessions, 1.4 CEUs. Geology 134. \$95.

BCDA-93

Professional Hand Lettering and Calligraphy

Hand lettering/calligraphy is an important tool for the commercial artist advancing in the marketplace — cards, invitations, logo, trademark, and creative lettering assignments for corporate and editorial needs. This program includes commercial lettering principles — proportion, letter and word spacing, divisions of calligraphy style — editorial and advertising signage, point of purchase display, and sign painting. Also included is developing typography design for logos and trademarks relevant to the marketplace. Program includes workshop activities, lecture, and demonstration. Jill Thayer O'Hara. Monday, Tuesday, Wednesday, January 27, 28, 29, 5:30-10:00 p.m. 1.4 CEUs. Geology 134. \$95.



Introducing An Instructional Video Cassette/Workshop Class

BCDA-79

Image Making: Illustration in the 80's

Latest advances in art technology have created a wide range of materials and tools which are now available to today's communication artists. From portable photo development kits to desk top computers, contemporary illustration is positively effected through strengthening composition and speeding up the image making process. This lecture, demonstration, workshop program will provide an array of opportunities to learn about new materials, new techniques and how they can be incorporated into a variety of illustration styles. Tuition includes one of the following cassette tapes:

About the Instructional Cassettes (Select One)

Each full color, 2-hour cassette (1/2" VHS or Beta formats) features a national leader sharing procedural and polishing skills in a particular subject area. Each cassette is intended to become part of the learner's instructional video home library.

Air-Brush Techniques

Featuring Charles White III showing how-to's of creating soft brush effects, frisket procedures, and special surface effects.

Cartooning for Teachers, Artists, or Anyone Who Wants to Draw

Eric Teitelbaum introduces a step-by-step process to create thousands of characters using 3 simple shapes. Topics include faces, bodies, expression, movement, caricature, and inanimate objects.

Computer Graphics

Video features TRON Motion Picture computer designer Art Durinski sharing techniques, ideas on how this art technology is revolutionizing the graphics field.

Photographing People

Former National Geographic Magazine Photographer Albert Moldvay discusses the nuances of people photography. Technique demonstrations and solid advice on timing and composition and lighting provide the learner with ongoing advice via the video medium.

(You may purchase additional cassettes on workshop day at \$39 each).

William Teitelbaum. Saturday, February 1, 10 a.m. - 4 p.m. One all-day session. Geology 134. \$49.

BCDA-82
Commercial Art II

This course builds advanced skills in layout, design, paste-up, logo development, and corporate identity. Topics include development of professional techniques, including color screens, color wash, and color separations. It is recommended that Commercial Art I be completed before enrollment in this course, or that students demonstrate more advanced commercial art skills. Eric Teitelbaum. Saturday and Sunday, February 8 and 9, 9 a.m.-5 p.m. Two all-day sessions, 1.4 CEUs. Geology 134. \$95.

BCDA-84
The Artist Goes to Market

How do you find the market? How do you know how much to charge? Is your portfolio complete in its present form, or does it need polishing? What is an artist's agent? These are questions asked by aspiring commercial artists and answered by professionals in this exciting program. Topics include agents, personal brochures, copyright laws, and proper portfolio assembly. Eric Teitelbaum. Monday and Tuesday, February 10 and 11, 5:30-10 p.m. .9 CEUs. Geology 134. \$70.

Two new courses in Computer Graphics Art qualify for elective credit in the Certificate in Commercial Design. These are listed on page 33 with Computer Applications courses.

BCDA-95
Technical Perspective and Rendering Techniques

This course features technical rendering skills applicable to architecture, industrial, interior, and landscape illustration assignments, which are necessary tools for professional illustrators. Topics include, but are not limited to, one- and two-point perspective, diverse light sources, simulated and real textures relating to rough and finished art for client presentation. Techniques covered include use of pen, paper, surfaces, wash, and prisma color. Roy Walden. Saturday and Sunday, March 1 and 2, 9 a.m.-5 p.m. 1.4 CEUs. Geology 134. \$95.

BCDA-78
**The Advertising Copywriter:
A Writing Techniques Workshop**

This beginning program in advertising copywriting examines the writer's relationship in an advertising agency during the creative stages of campaign development. Topics will introduce the creative techniques of producing "written messages" that motivate people to buy products and services. Intensive workshop activities will cover headline and body copy techniques, creative stimulation, marketing, and creative team problem solving within the advertising agency setting. This program is a must for anyone seeking to work in PR, advertising, sales promotion, or for small business people/firms that must generate persuasive copy for the marketplace. Michelle Martino. Saturday and Sunday, March 8 and 9, 9 a.m.-5 p.m. 1.4 CEUs. Geology 134. \$95.

BCDA-71
**Commercial Photography Techniques
for Commercial Artists**

This intensive seminar is an in-depth exploration of the world of professional photography, and embraces techniques used for an array of professional assignments. Product photography, fashion, editorial, and photo-journalistic techniques will be covered as they relate to current trends and developments. Workshop demonstrations include lighting, film selection, special effects, lens selection, effective commercial photography shooting techniques for commercial artists, storyboard presentations, and small client projects. Covered also is support of Morgue research for illustration. Students should bring their own 35mm camera and black and white film. Roy Walden. Saturday and Sunday, April 5 and 6, 9 a.m.-5 p.m. 1.4 CEUs. Geology 134. \$95.

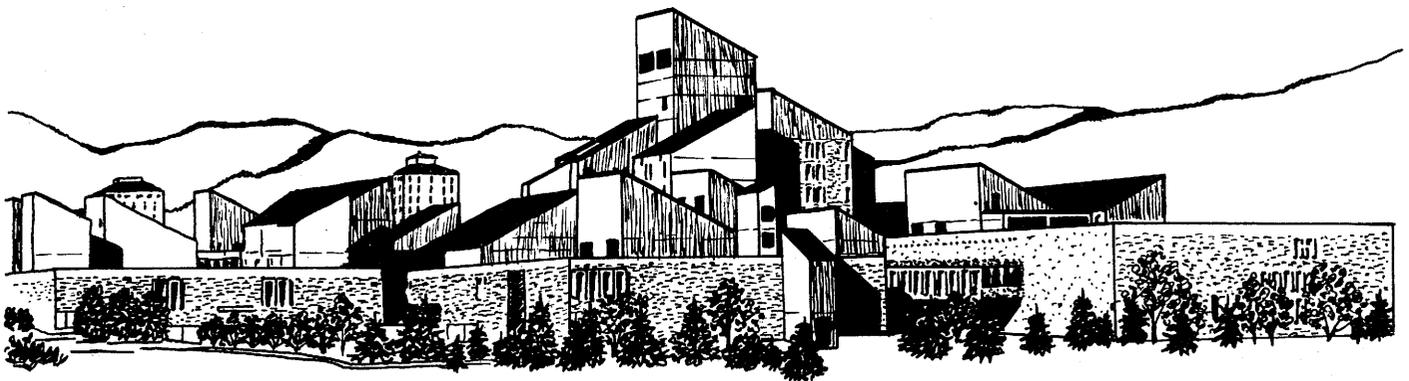
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Details on page 65.



Avoid the Registration Crunch
Phone-In Noncredit — Certificate Registration

January 13 — February 21

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For other course information:

492-5148

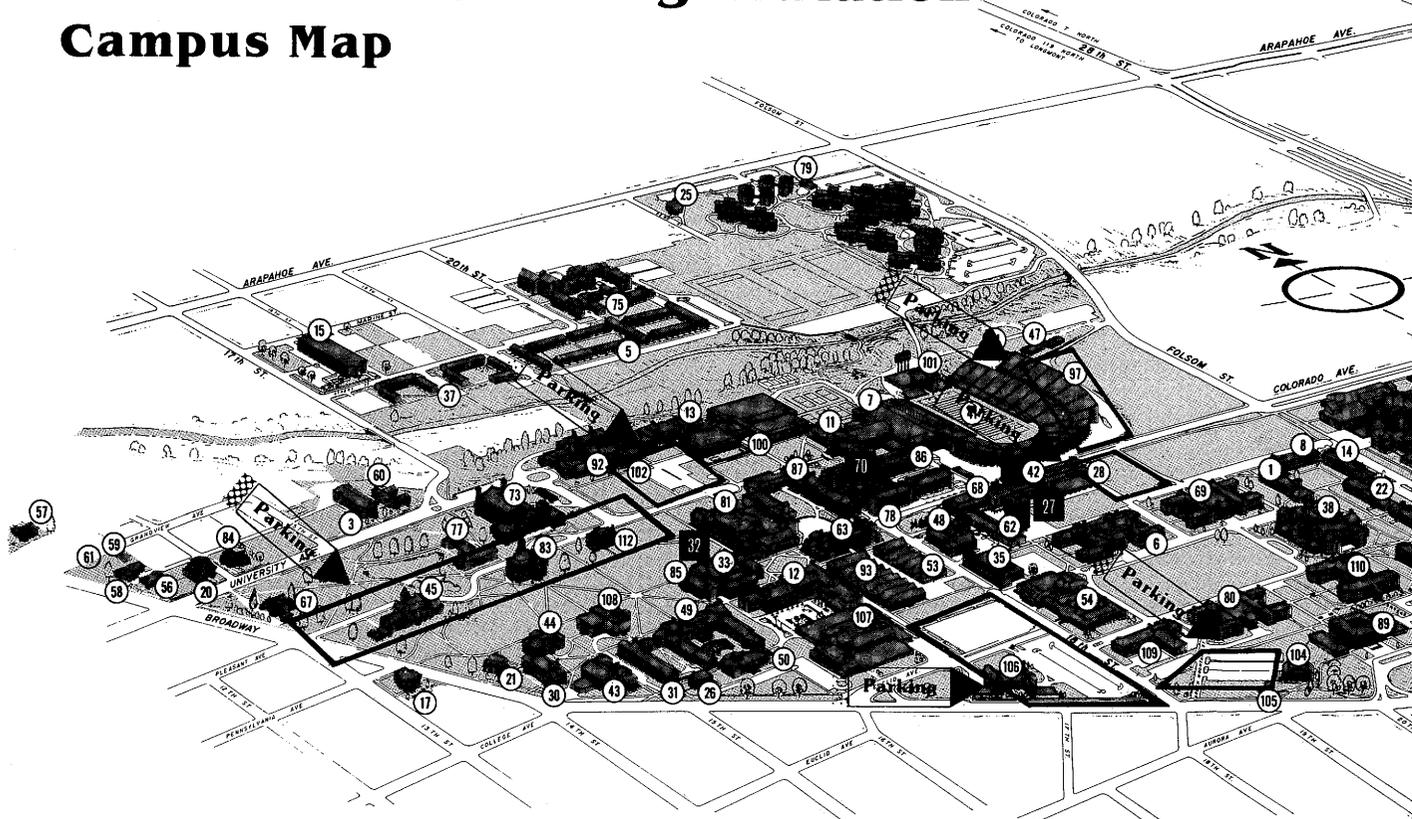
Make our registration office as close as your telephone.

Complete registration information, page 65.

Before January 13, after February 21, call

492-5148.

A University of Colorado, Boulder B Division of Continuing Education C Campus Map D E F G H I J



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

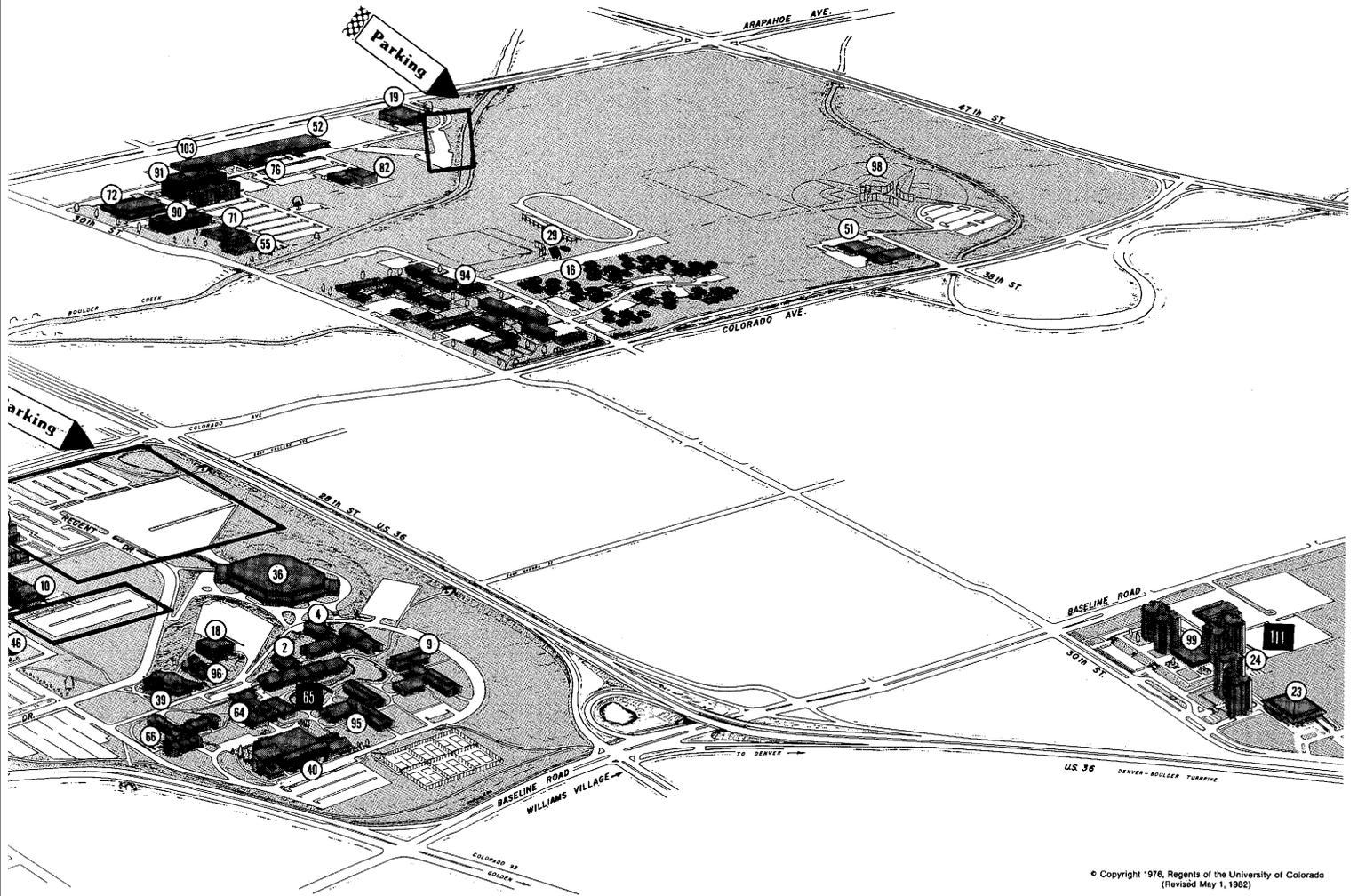
☒ = indicates parking where 50 cents is charged for parking after 5:00 p.m. and on weekends. Bring 2 quarters. Only attended lot is next to University Club (#106) for change.

☐ = Indicates areas for free parking after 5:00 p.m.

During any special event, Continuing Education shall present their registration receipt to obtain at no extra charge (Parking Regulation III-D-5a.)

Academy Center and Conservatory (970 Aurora)..... not shown	18. Communication Disorders and Speech Science G-20	30. Economics I-7	47. Health Physics Laboratory F-1
1. Aden Hall G-15	19. Computing Center A-23	31. Education I-9	48. Heating Plant H-1
2. Andrews Hall (Kittredge Complex) H-21	20. Continuing Education (1221 University) H-3	32. Ekeley Chemical/Laboratories Complex (Includes Ekeley Chemistry and Pharmacy) H-9	49. Helms Arts and Sciences I-1
3. Armory (1511 University) H-5	21. Cottage No. 1 I-7	33. Ekeley Chemistry H-9	50. Henderson Museum I-1
4. Arnett Hall (Kittredge Complex) H-22	22. Crosman Hall G-17	34. Engineering Center F-17	51. Housing System Maintenance Center (1255 38th) B-2
5. Athens Court (1951 Grandview) F-8	23. Darley Commons (Williams Village Complex) H-34	35. Environmental Design H-12	52. Housing System Support Center (3381 Marine) B-2
6. Baker Hall H-14	24. Darley Towers (Williams Village Complex) H-33	36. Events/Conference Center G-21	53. Hunter Science H-1
7. Balch Fieldhouse F-11	25. Day Care Center (2202 Arapahoe) D-9	37. Faculty-Staff Court (18th and Athens) F-6	54. Imig Music I-1
8. Brackett Hall G-16	26. Denison Laboratory I-9	38. Farrand Hall H-16	55. Institute of Behavioral Genetics C-2
9. Buckingham Hall (Kittredge Complex) H-23	27. Duane Physical Laboratories Complex (Includes Duane Physics and Astrophysics, Gamow Tower, Laboratory for Atmospheric and Space Physics, and Joint Institute for Laboratory Astrophysics Laboratory and Tower) G-13	39. Fiske Planetarium I-20	56. Institute of Behavioral Science No. 1 (1416 Broadway) H
10. Business G-18	28. Duane Physics and Astrophysics G-13	40. Fleming Law I-21	57. Institute of Behavioral Science No. 2 (1546 Broadway) H
11. Carlson Gymnasium G-11	29. East Campus Ski Building D-25	41. Folsom Stadium F-12	58. Institute of Behavioral Science No. 3 (1424 Broadway) H
12. Chemistry H-10		42. Gamow Tower (Duane Physical Laboratories Complex) G-13	59. Institute of Behavioral Science No. 4 (1220 Grandview) H
13. Clare Small Gymnasium G-9		43. Geology I-8	60. Institute of Behavioral Science No. 5 (1201 17th) G
14. Cockerell Hall G-16		44. Guggenheim Geography I-7	
15. College Inn Conference Center (1729 Athens) F-5		45. Hale Science I-6	
16. Colorado Court (3333 Colorado Avenue) C-25		46. Hallett Hall H-17	
17. Communication (1165 Broadway) J-8			

This map may be removed for future reference.



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(Revised May 1, 1982)

18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

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1. Institute of Behavioral Science No. 6 (1243 Grandview) H-2	70. Life Sciences Laboratories Complex (Includes Muenzinger Psychology, Porter Biosciences, and Ramaley Biology) G-11	85. Pharmacy (Ekeley Chemical Laboratories Complex) H-9	99. Stearns Towers (Williams Village Complex) G-32
International English Center (889 17th) not shown	71. Life Sciences Research Laboratory C-20	96. Porter Biosciences (Life Sciences Laboratories Complex) G-11	100. Student Recreation Center G-10
2. Joint Institute for Laboratory Astrophysics (JILA) (Duane Physical Laboratories Complex) H-12	72. Litman Research Laboratory B-19	87. Ramaley Biology (Life Sciences Laboratories Complex) G-10	101. Team House F-12
3. Ketchum Arts and Sciences H-11	73. Macky Auditorium H-7	88. Reed Hall G-17	102. Temporary Building No. 1 G-8
4. Kittredge Commons (Kittredge Complex) H-21	74. Maintenance and Operations Center F-12	89. Regent Administrative Center I-17	103. Transportation Center (3205 Marine) B-20
5. Kittredge Complex (Includes Andrews, Arnett, Buckingham, Kittredge West, and Smith halls) I-21	75. Marine Court (1350 20th) E-8	90. Research Laboratory No. 2 (WICHE) C-20	104. University Administrative Center (914 Broadway) I-16
6. Kittredge West Hall (Kittredge Complex) I-20	76. Marine Street Science Center (3215 Marine) B-21	91. Research Laboratory No. 3 (NOAA, NCAR) B-20	105. University Administrative Center Annex (824 Broadway) I-15
7. Koenig Alumni Center I-4	77. McKenna Languages H-6	92. Sewall Hall G-8	106. University Club (972 Broadway) I-12
8. Laboratory for Atmospheric and Space Physics (LASP) (Duane Physical Laboratories Complex) G-12	78. Muenzinger Psychology (Life Sciences Laboratories Complex) G-11	93. Sibell-Wolle Fine Arts H-11	107. University Memorial Center (UMC) I-11
LASP Engineering Center (5525 Central Ave.) not shown	79. Newton Court (1475 Folsom, 2300 Arapahoe) D-10	94. Smiley Court (1300 30th) D-23	108. University Theatre I-8
9. Libby Hall G-15	80. Nichols Hall I-15	95. Smith Hall (Kittredge Complex) I-22	109. Wardenburg Student Health Center I-14
	81. Norlin Library H-9	96. Sommers-Bausch Observatory H-20	110. Willard Administrative Center (North Wing) and Willard Hall (South Wing) H-16
	82. Nuclear Physics Laboratory B-22	97. Stadium Building F-13	111. Williams Village Complex (Includes Darley Commons, Darley Towers, Stearns Towers, and Heating Plant) H-33
	83. Old Main H-7	98. Stazio Recreation Complex B-28	112. Woodbury Arts and Sciences H-8
	84. Page Foundation Center (1305 University) H-4		

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For other course information:

492-5148

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Complete registration information, page 65.

Before January 13, after February 21, call

492-5148.

Personal Enrichment Adult Courses

The University of Colorado, Boulder, Division of Continuing Education has offered a wide range of personal enrichment adult courses each semester since 1912. They are designed to give adult learners the opportunity to explore vocational or avocational interests in an informal class, seminar, or workshop environment that meets their needs directly. The courses are offered without University credit, formal examinations, or a rigid structure. Instructors are selected on the basis of their strong updated knowledge of the subject and their commitment to meet today's adult learning demands.

Course length is adjusted to suit the subject matter, so times and dates are listed with each individual course. Whether to satisfy curiosity, help meet some career or lifestyle goals, or expand your artistic skills, some of these courses will be of keen interest to you, and you may be sure of a learning experience consistent with university standards.

Preregistration is required at least five days before the starting date of any course, regardless of its starting early or late in the semester. If you must register late, please notify the Continuing Education Office by calling 492-5148. Your cooperation in early registration is greatly appreciated by our faculty and staff. Complete registration information is on page 65.

Tuitions vary with the length of time of a course and materials involved, and are listed with each course.

Full refunds for PEAC are given up to the second class session only, none after.

Please note that no classes are conducted the week of March 24-29, Spring Semester break. Courses are conducted on President's Day, Monday, March 17. Also, for makeup sessions on religious holidays, please consult your instructor.

***The University welcomes you
to the PEAC experience!***

PEAC

Courses by Starting Date, Spring 1986

DATE/COURSE	FACULTY
Saturday, January 4 Preparing for the Graduate Management Admission Test (GMAT)	
Saturday, January 11 Choosing a College	Scott Hatch
Friday, January 31 Preparing for the Law School Admissions Test (LSAT)	Scott Hatch
Tuesday, February 4 Scuba Diving	Terry Danko
Wednesday, February 5 Taming Your Dragons: Creative Relaxation for Teachers and Parents	Martha Belknap
Saturday, February 8 Preparation for the Graduate Management Admission Test (GMAT)	
Monday, February 10 Beginners Conversational French Beginning Conversational Italian Black and White Darkroom Photography for Beginners Breaking In: The First Step in a Professional Writing Career Chinese Character Nature Writing Self-Defense for Women Stock Market Investment Today's World of Gemstones Woodcarving Sculpture Writing for Magazines	Nadia Turk Maris Gaudio Marga Querin Martha Gorman Yunn Pann Deidre Elliot Melanie Murphy Arnold Hart and Mary Wright Barbara Hight Barbara Cox Deidre Elliott

Tuesday, February 11

Accounting for Non-Accountants
 The Art of Piano Improvisation
 Beginner's Ballroom Dancing
 Beginner's Country Swing and Texas 2-Step
 Beginner's Jitterbug Rock-N-Roll
 Beginning Conversational Spanish
 Beginning Photography
 Being Creative With Your Life
 Creative Darkroom Procedures
 Earth Shelter Design
 Fundamentals of Meditation
 German for Beginners and Travelers
 Intermediate Conversational French
 Intermediate Conversational Italian
 Investment Strategies
 Passage to India
 Speaking Mandarin - Beginning Chinese

Bob Armstrong
 Brian Golden
 Van F. Pool
 Van F. Pool
 Van F. Pool
 Elizabeth Medina
 John Dziadecki
 Jenny Cook and Bette Griff
 Marga Querin
 Pamm McFadden
 Ralph McFall
 Heike Gümpel
 Marie-Christine Joslyn
 Maris Gaudiano
 Peter J. Poletti
 Côme Carpentier
 Yunn Pann

Wednesday, February 12

Advanced Beginners Conversational French
 Advanced Italian Discussion Group
 Algebra Review
 Forest Crossen's Colorado
 Intermediate German
 Looking at and Changing a Behavior Problem
 Printmaking: Intaglio Workshop
 Private Pilot Ground School
 Psychology & Sports
 Speed Reading
 Short Story Writing
 Stress Management and Biofeedback
 Watercolor Techniques
 Writing for Children and Teens

Nadia Turk
 Maris Gaudiano
 Keith Bailey
 Forest Crossen
 Heike Gümpel
 Nancy M. Adams
 Tim Diffenderfer
 David Nichols
 Stephen E. Walker
 Elizabeth King
 Barbara Steiner
 Toby F. Link
 Gail Marr
 Barbara Steiner

Thursday, February 13

Biology of Women
 Creative Photography Workshop
 Direct Mail Marketing: A Practical Approach
 Earning Money Without a Job or Ideas for Part-time Self-Employment
 English Writing Made Simple
 The Goal Mind Workshop

Margaret Goodhue
 Harry Boyd
 Patricia L. Jensen
 Ted Giles
 Jean E. Thyfault
 Faith Hickman and
 Kathleen Krenzel
 Elizabeth Medina
 Mark E. Ryan
 Barbara Preskorn
 Normandie Ellis
 Cheryl Christensen
 Tony Hopper

Intermediate Conversational Spanish
 Introduction to the Highland Bagpipe
 Life Drawing
 Newsletter Publication
 Quality Circles/Awareness Circle
 Starting and Succeeding in Your Own Business

Friday, February 14

Bald Eagles, Golden Eagles, Hawks and More

Tina Jones

Saturday, February 15

Preparing for the SAT/ACT

Scott Hatch

Monday, February 17

Birds of the U.S./Bird Hot Spots of the U.S.

Tina Jones

Wednesday, February 19

The Early Warning Signs of Divorce
 Winter Animal Tracks, Signs and Evidence

Neil Rosenthal
 Tina Jones

Thursday, February 20

Topics on Bird Behavior and Bird Characteristics

Tina Jones

Saturday, February 22	
Basics of Printing: Using a Handpress	Nora J. Quinlan
The Psychology of Intimacy	Neil Rosenthal
How to Publish Your Own Book	Jacquelyn Peake
Parenting the Gifted/Talented Child	Dorothy Knopper
Selling Your Photography	Harry Boyd
Thursday, February 27	
Sailing Seamanship — Cruising Under Sail	Bill Plywaski
Saturday, March 1	
Songwriting for Fun and Profit (But Mostly Profit)	Dick Weissman
Monday, March 3	
Preparing for the Medical College Admissions Test (MCAT)	Scott Hatch
Friday, March 7	
What They Don't Teach You at Harvard Business School	Mark H. McCormack
Saturday, March 8	
Preparing for the SAT/ACT	Scott Hatch
Stress Management	Toby F. Link
Monday, March 10	
The Fascinating History of Colorado Railroads	Robert E. Rothe
Preparing for the Graduate Record Exam (GRE)	Roe Willis and Terri Bodhaine
Wednesday, March 12	
At the Movies — A View of Life Stress in Contemporary Film	Stephen E. Walker
Saturday, March 15	
The Music Business	Dick Weissman
Tuesday, March 18	
Intermediate Ballroom Dancing	Van F. Pool
Intermediate Country Swing and Texas 2-Step	Van F. Pool
Intermediate Jitterbug Rock-N-Roll	Van F. Pool
Stock Market Profits	Peter J. Poletti
Saturday, March 22	
The Care of Photographic and Fine Printed Art	Sharon Hall
Saturday, April 5	
The Romance and Adventure of Hot Air Ballooning	Joyce VandeHoef
Monday, April 7	
Black and White Darkroom Photography for Beginners	Marga Querin
Tuesday, April 8	
Creative Darkroom Procedures	Marga Querin
Scuba Diving	Terry Danko
Friday, April 11	
Improving Health and the Quality of Life Through Nutrition	Peggy Phillips
Saturday, April 12	
Residential Landscaping for Beauty, Water Conservation and Low Maintenance	Jim Knopf
Tuesday, April 15	
Preretirement Planning Seminar	Peter J. Poletti
Wednesday, April 16	
Surface Excavations in Rock	Bernard Amadei and Dan Frangopol
Saturday, April 19	
Black Holes, Quasars, and Exploding Galaxies: In Celebration of Halley's Comet	Joe Romig, William Kaufmann
Creative Imagination: How To Get What You Want	Phyllis J. O'Rourke
Tuesday, April 22	
Making College Affordable for Your Family	Peter J. Poletti
Friday, April 25	
Preparing for the Law School Admissions Test (LSAT)	Scott Hatch

Tuesday, April 29

Advanced Ballroom Dancing
Advanced Country Swing and Texas 2-Step
Advanced Jitterbug Rock-N-Roll
Investing for Income

Van F. Pool
Van F. Pool
Van F. Pool
Peter J. Poletti

Monday, May 5

Spring Birdwatching: Unusual Migrants, Colorful Feathered Friends

Tina Jones

Thursday, May 8

Resort Condominium Management.

Gerald G. Hewey

Tuesday, May 13

Preparing for the Graduate Record Exam (GRE)

Roe Willis and Terri Bodhaine

Thursday, May 15

Spring Wild Flowers; Their Uses and Identifications

Tina Jones

Saturday, May 17

Preparing for the Graduate Management Admission Test (GMAT)

Academe

BCEA-40

Black Holes, Quasars, and Exploding Galaxies: In Celebration of Halley's Comet

This unique learning experience, featuring renowned astrophysicist Dr. William Kaufmann via satellite, will not only reveal the latest photographs of celestial missions, but also explore effective techniques used for observing and photographing the Halley's Comet phenomenon from the Continental United States. Program discussion will also cover the nature of comets, their origin, and comet lore. As a special added dimension, Dr. Kaufmann will address the exotic aspects of black holes, time machines, worm holes, and how black holes seem to be the source of energy inside quasars and exploding galaxies. Another highlight will be the showing of first time film footage from the CRAY super computer revealing matter falling on super massive black holes. This course will combine a local workshop with the satellite program to provide a unique learning opportunity for astronomers, teachers, students of astronomy, or anyone interested in celestial investigation. No scientific background is required for this day-long experience. Course fee includes lunch and refreshments. Joe Romig, Ph.D. Saturday, April 19, 9:30 a.m.-4:30 p.m. One all-day session. Events/Conference Center Room 4. \$65.

BCEE-61

English Writing Made Simple

Writing business letters, reports, articles, speeches, and the like can be made much more simple and easy. Course applies an approach to teaching English that is unique and proven very successful. Writing can be easy and painless if these simple methods are followed. Topics include proper sentence structure and grammar review. Jean E. Thyfault, B.A. Thursdays, February 13-April 10, 7-9 p.m. 8 sessions. Ketchum 234. \$56.

BCEE-63

How to Publish Your Own Book

Self-publishing offers serious writers several advantages over working with commercial publishers (many of whom won't even look at the work of a new writer). In this program the emphasis is on non-fiction books. We'll discuss every aspect of self-publishing (positive and negative), including: choosing a subject, preparing the manuscript, dealing with the printer, using graphics, copyrighting the book, getting the book listed nationally, distribution to book stores, mail order, promotion, profit ratio — and much more. The lecturer has published books both with commercial publishers and through self-publishing. There will be a \$5 materials fee, payable at the first class session. Jacquelyn Peake, professional writer. Saturday, February 22, 9 a.m.-4 p.m. One all-day session. Hellem 193. \$40.

BCEE-25

Breaking In: The First Step in a Professional Writing Career

A thoroughly practical, hands-on guide to gaining a toe-hold in the challenging field of professional freelance article writing. This course will not teach you how to write. It will teach you the ins-and-outs of the business of independent writing: Market evaluation, querying, getting a first article published, use of clips, structuring fees, meeting deadlines, invoicing, following-up, making a profit, and more. Martha Gorman, M.I.S. Mondays, February 10-March 31, 7-9 p.m. 7 sessions. Hellem 251. \$52.



BCEE-24
Nature Writing

Survey of literature from Abbey to Zwinger including prose, poetry and environmental advocacy. Instruction on specific techniques including characterization, voice, metaphor, sensory details, etc. Basic manuscript preparation, marketing information, in-class sharing of student work. Deidre Elliott, professional writer. Mondays, February 10-April 7, 8-9:30 p.m. 8 sessions. Hellems 245. \$42.



BCEG-28
Preparing for the Graduate Management Admission Test (GMAT)

A special course offered for those individuals pursuing a graduate degree in business. Test-taking strategies and short-cut techniques are offered for the Math Ability, Data Sufficiency, Reading Comprehension, Sentence Correction, Business Judgment, and English Usage sections. A short review of Arithmetic, Algebra, and Geometry is also included. Books and instructional materials are included in the course tuition.

Section I (for the January 25 test date): Saturdays, January 4, 11, and 18, 9 a.m.-3:30 p.m. 3 sessions.

Section II (for March 15 test date): Saturdays, February 8, 22, March 1, 8 (no class February 15), 9 a.m.-1 p.m. 4 sessions.

Section III (for June 21 test date): Saturdays, May 17, 31, June 7, 14 (no class session May 24), 9 a.m.-1 p.m. 4 sessions.

All Sections: Ketchum 120. \$125.

BCEG-27
Preparing for the Graduate Record Exam (GRE)

Analyze and review basic skills tested on the Graduate Record Exam. Emphasis is on test-taking skills and review of relevant verbal, math, and analytical problems. Text is *Practicing to Take the GRE General Test*, published by Educational Testing Service, available at the University Book Center, UMC 10, and at Colorado Bookstore, College and Broadway, with other optional texts given in class. Courses are structured to lead up to exam date. Course is not a general review of text-related material, but completely test oriented and intended for those taking the GRE. Roe Willis, Ph.D. and Terri Bodhaine, M.A.

Section I (for April 12 test date — apply to ETS by March 7): Mondays and Thursdays, March 10-April 10 (no class sessions March 24 and 27), 6:30-9 p.m. 8 sessions.

Section II (for June 7 test date — apply to ETS by May 2): Tuesdays and Thursdays, May 13-June 5, 6:30-9 p.m. 8 sessions.

Both Sections: Ketchum 207. \$70.

BCEL-29
Preparing for the Law School Admissions Test (LSAT)

For persons planning to take the Law School Admissions Test (LSAT), this course offers intensive review, preparation, and sample testing in all areas of the new LSAT format, including application of issues and facts, reading comprehension, writing sample, logical diagrams, logical reasoning, and analytical reasoning. Emphasis is on taking verisimilar exams with full explanations and interpretations provided by highly skilled testing and legal faculty. The course fee includes extensive materials covering all aspects of the exam. Scott Hatch, M.A., J.D.

Section I (for February 15 test): Friday, January 31, 6-10 p.m., and Saturday and Sunday, February 1 and 2, 9 a.m.-5 p.m.

Section II (for June 16 test): Friday, April 25, 6-10 p.m., and Saturday and Sunday, April 26 and 27, 9 a.m.-5 p.m.

Both Sections: 3 sessions. Geology 108. \$140.

Avoid the Registration Crunch
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January 13 — February 21
MasterCard — VISA Only

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443-9973

For other course information:

492-5148

Make our registration office as close as your telephone.

Complete registration information, page 65.

**Before January 13, after February 21, call
492-5148.**

BCEG-49
Preparing for the Medical College Admissions Test (MCAT)

This intensive 32-hour seminar is designed to prepare students planning to take the April 19, 1986, Medical College Admissions Test (MCAT). The course is taught by instructors in physics, chemistry, biochemistry, and biology, in addition to course coordinator, Scott Hatch. The course covers all aspects of the MCAT, including biology, chemistry, physics, quantitative skills, and the new essay portion of the exam. The MCAT is required for admission to virtually all accredited medical schools, and the seminar is designed to maximize a student's test performance. Test-taking techniques unique to the MCAT will be discussed in detail. Scott Hatch, M.A., J.D., and Staff. Mondays, Tuesday, Wednesdays, and Thursdays, March 3-13, 6-10 p.m. 8 sessions. Geology 108. \$220.

BCEG-26

Preparing for the SAT/ACT

This intensive two-day course provides test-taking skills and techniques which are essential for improving performance on the "SAT" and "ACT." Each of the test question areas will be analyzed extensively, with special consideration given to a math and verbal refresher. The course is designed to reinforce a student's ability to deal skillfully with basic and advanced math concepts (including fractions, decimals, percentages, ratio, proportion), as well as algebraic and geometric concepts. Appropriate and effective word usage will also be covered as well as logical presentation of ideas. Lectures will also discuss techniques of evaluation and analysis of the readings in social and natural sciences which appear on the tests. Scott Hatch, M.A., J.D.

Section I: Saturday and Sunday, February 15 and 16, 9 a.m.-5 p.m.

Section II: Saturday and Sunday, March 8 and 9, 9 a.m.-5 p.m.

Both Sections: Two all-day sessions. Geology 108. \$75.

BCEE-28

Short Story Writing

All aspects of planning and writing short fiction for today's magazines, both general and special interest. Instruction and practice in story structure, plotting, characterization, scene building, creating suspense, and emotional appeal. Special emphasis on recreating experience rather than narrating it. Help with individual projects and with marketing. Barbara Steiner, professional writer. Wednesdays, February 12-April 23, 8-9:30 p.m. 10 sessions. Hellem 81. \$45.

BCEE-20

Speed Reading

Speed Reading is a sub-skill of reading, much like a backhand stroke is a component of the "total" tennis game. Without it, you're not achieving full potential. Speed Reading is also flexibility: it allows you to increase reading rate and retain comprehension at the same time. Speed Reading is for everyone who reads and loves to read. This course builds rate and comprehension while also improving retention over longer periods of time. Knowledge of the reading process, skimming, scanning, preview and prediction strategies, organizational patterns, and notetaking skills are components of the "total" reading package upon which this course touches. The material the class reads is included in the required text, *Sack-Yournam Speed Reading Course*, available at the University Book Center, UMC 10. In addition, other thought-provoking articles from various sources help make each class interesting and lively. Elizabeth King, M.A. Wednesdays, February 12-April 9, 7-9 p.m. 8 sessions. Ketchum 33. \$56.

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BCEE-29

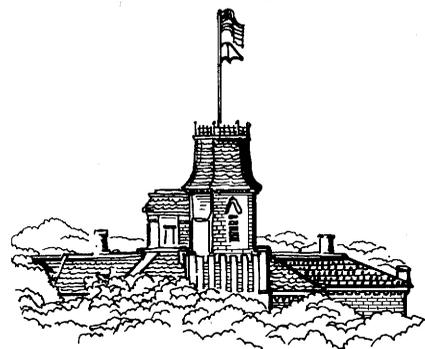
Writing for Children and Teens

Instruction and practice in writing stories, articles, books, verse, and plays for children from tots through teens. Detailed help in producing manuscripts that will meet the needs of this active market. Both beginning and more experienced writers may enroll and concentrate on the age groups, subject matter, and media that interest them most. Barbara Steiner, professional writer. Wednesdays, February 12-April 23, 6:30-8 p.m. 10 sessions. Hellem 81. \$45.

BCEE-27

Writing for Magazines

Develop your own style and critiquing skills. Learn the basics of magazine article writing including how to find ideas, manuscript preparation, research, query letters, marketing, and interviewing. Article types covered include travel, human interest, self help, essay, science and technology, hobby and craft, and more. Deidre Elliott, professional writer. Mondays, February 10-April 7, 6:30-8 p.m. 8 sessions. Hellem 245. \$42.



Business

BCEB-15

Accounting for Non-Accountants

An introductory course in accounting for those who have had little or no previous training. Emphasizes the recording, reporting, and analysis of accounting information as well as in-depth understanding of financial statements. Other topics include treatment of assets, liabilities, and income taxes. A recommended textbook is discussed at first class sessions and will be available at the University Book Center, UMC 10. Bob Armstrong, B.S., C.P.A. Tuesdays, February 11-April 8, 7-9 p.m. 8 sessions. Engineering Center CR 1-40. \$56.

BCEG-12

Being Creative With Your Life

This class will give individuals who are in transition an awareness of where their main strengths and abilities lie in order to get their life in better balance. Part of reaching that balance is understanding the whole brain and stimulating creativity and decision making. Based on the "parachute process," this class will help both men and women create and design a job, become self-employed, or work as a volunteer. Emerging from "stuckness" by unlocking your creative potential and understanding your relationships is the key. Textbooks for the course are available at the University Book Center. They are *The Warrior Within*, by Shale Paul, and *What Color Is Your Parachute?*, by Richard Bolles. Jenny Cook, B.A., and Bette Griff, B.A. Tuesdays, February 11-April 22, 6:30-9:30 p.m. 10 sessions. Hellem 255. \$95.

BCEB-21

Direct Mail Marketing: A Practical Approach

This course provides a thorough and practical introduction to direct mail marketing. Learn how to start and manage a direct mail program, and how to avoid common problems. Topics include design and format of mailing pieces, obtaining lists, testing and tracking, working with printers, typesetters, and lettershops, and the use of microcomputers in direct mail marketing. Patricia L. Jensen, B.A. Thursdays, February 13-March 13, 7-9 p.m. 5 sessions. Hellems 245. \$37.

BCEB-26

Earning Money Without a Job or Ideas for Part-Time Self-Employment

Do you want to be self-employed? Many people would like to be self-employed, but they don't know what to do, and they don't believe that they can do it or want to do it full-time. This seminar will give you money-making ideas if you're people oriented. You too can earn money without a job! \$2 materials fee included in tuition. Ted Giles. Thursdays, February 13, 6:30-9:30 p.m. One session. Hellems 229. \$26.

BCEB-30

Investment Strategies

Demystify the wide range of investment opportunities and learn how to select and manage investments to suit your own objectives. This course will sharpen your understanding and your investment skills, and help make your money grow. Topics include:

- Money growth, the golden thread
- Safety, liquidity, diversification, growth of value, interest and dividends, guarantees, minimizing taxes, professional management
- Money market funds, cash management, CDs
- Zero-coupon bonds, GNMA's
- Corporate and municipal bonds, unit trusts
- Stocks, utilities, real estate, mutual funds
- Options, precious metals, commodities.

Peter J. Poletti, M.B.A. Tuesdays, February 11-March 11, 6:30-8:30 p.m. 5 sessions. Hellems 229. \$39.

BCEM-10

The Music Business

The music that reflects our life and times is the product of a creative and dynamic (and sometimes devastating) industry. If you're involved in music, this course is essential; if you enjoy music, this course is enlightening. Topics include how the music business operates, contracts, unions, the value of the agent, personal manager, commercials, careers and opportunities, music in the video age. Individual questions will be solicited and answered in detail. Tuition includes a copy of the industry book, *The Music Business: Career Opportunities and Self-Defense*, Dick Weissman. Saturday, March 15, 1-5 p.m. 1 session. Hale 104. \$32.

BCEB-25

Newsletter Publication

Learn the skills necessary to produce corporate, commercial, or private enterprise newsletters. Learn, too, the not-so-subtle art of meeting deadlines and staying within budget.

We'll study editorial concerns, such as interviewing, copywriting, and editing; and graphics concerns, such as design, copyfitting, and image-building. Course includes a brief overview of legal considerations. We'll also discuss photography, typesetting, and printing. Two classes are devoted to hands-on experience and critiques of students' work. Designed for current and future newsletter editors, this is not a grammar review. Normandi Ellis, M.A. Thursday, February 13-April 10, 7-9 p.m. 8 sessions. Hellems 237. \$58.



BCEB-28

Investing for Income

Seminar presents methods of investing for income in today's changing economic and investment environment. Covers guarantees, safety, risk, and tax implications. Anybody needing income should be interested:

- CDs, money market funds, banks, savings and loans, cash management accounts
- U.S. Government securities, GNMA's, zero coupon bonds, municipal bonds
- Income-producing limited partnerships, oil and gas production, rental real estate, leasing
- Blue chip stocks, utility stocks, covered call writing, mutual funds, corporate bonds, preferred stocks, real estate investment trusts
- Keyplan, fixed annuities, variable annuities, immediate annuities

Peter J. Poletti, M.B.A. Tuesday, April 29, 6:30-8:30 p.m. One session. Hellems 229. \$19.

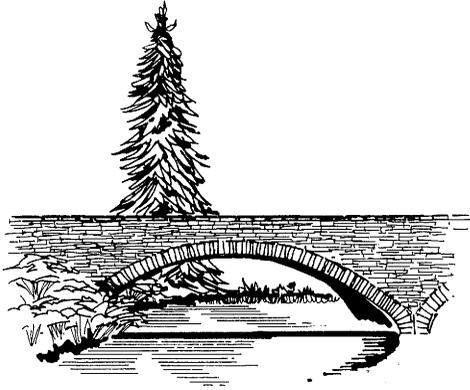
BCEB-55

Preretirement Planning Seminar

This seminar is designed to help people within a year or two of retirement, or already retired, in planning and managing their finances and investments. It takes into account recent tax changes and covers various investments of particular interest to retirees. It has been presented at company seminars for older employees, and can provide a balanced view of the retirement planning problem. Topics include:

- Lump sum distribution
- IRA Rollover
- 10 year averaging
- Organizing assets for safety, liquidity, diversification
- Handling the IRA and other retirement plans
- Withdrawal of funds
- Minimizing taxes and offsetting inflation

Peter J. Poletti, M.B.A. Tuesday, April 15, 6-9 p.m. One session. Hellems 229. \$19.



BCEB-27

Quality Circles/Awareness Circle

This seminar is designed to answer the questions: Why? What? How do they work? and, Can they be effective in your setting? Created in Japan with All-American components, quality circles have been hailed as one of the most effective problem solving, participatory management techniques. This seminar will discuss successes as well as problems, and participants will actually go through the Quality Circle process. Cheryl Christensen, M.S.W. Thursdays, February 13-March 13, 7:30-9:30 p.m. 5 sessions. Hellem 191. \$42.

BCEB-23

Resort Condominium Management

This course is designed to give the student a comprehensive understanding of the management of the resort condominium. The following topics will be discussed: organization and structure of the association, property analysis, responsibilities of management, management contracts, relationships to the real estate industry, and specifics on the management of the resort hotel condominium. This course is an overview for resort and hotel personnel, condominium association officers and members, real estate salespeople and brokers, architects, developers, those interested in entering the field of resort condominium management, and commercial recreation students. Commercial recreation students may be eligible for one semester hour of credit. Fee includes continental breakfasts, refreshment breaks, and a reception. Gerald G. Hewey, C.H.A. Thursday, May 8, 9 a.m.-5 p.m., Friday, May 9, 9 a.m.-4 p.m., and Saturday, May 10, 9 a.m.-12 p.m. Three sessions. Events/Conference Center, Room 3. \$155.

BCEB-11

Starting and Succeeding in Your Own Business

If you are thinking of starting your own business, whether part-time or full-time, or if you work with independent business people, you will profit from this workshop. The workshop starts with your idea and helps you develop it through a series of practical exercises into a complete plan for success in your business. Areas covered include defining your market, advertising, sales, forecasts, profit projection, cash flow analysis, and over 60 ways to finance your business. Tuition includes handouts and materials. Tony Hopper, M.B.A., Ph.D. Thursdays, February 13-March 13, 6:30-9:30 p.m. 5 sessions. Business 208. \$53.

BCEG-34

Stress Management

The topic of this workshop is Stress Management/Biofeedback and is designed for the busy professional who has a limited amount of time. The focus will be to identify our stressors, our stress responses, and to learn methods of coping, adjusting to, and reducing our experiences with stress. We will look at origins of stress from personal, psychosocial and environmental perspectives, and emphasize small group activity, skills acquisition, biofeedback, discussion and self-care techniques. Physical, cognitive, and environmental approaches to stress will be applied. This workshop can benefit anyone who experiences or has experienced any of a wide variety of physical or emotional symptoms of stress. Bring a sack lunch. Toby F. Link, Ph.D. Saturday, March 8, 8:30-4 p.m. One all-day session. Business 125. \$32.

BCEB-22

Stock Market Investment

This course is aimed at the person who wants to take concrete steps toward planning his/her financial future with a special eye on today's stock market. Using checklists provided, each person can individualize specific types of investments most appropriate to the current situation and periodically revise the plan based on changed goals and needs. The course is oriented toward those concerned with stocks, technical analysis, tax shelters, and basic longer-term financial planning. Required book is *How to Buy Stocks and Bonds*, by Louis Engle, available at the University Book Center, UMC 10. Arnold Hart, M.A. and Mary Wright. Mondays, February 10-April 7, 7-9 p.m. 8 sessions. Hellem 285. \$56.

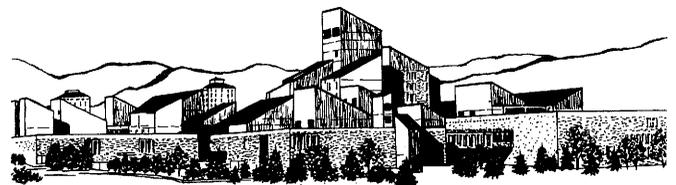
BCEB-65

Stock Market Profits

This course covers insights, tools, and strategies for success in the stock market:

- How to find the big winners
- How to be in phase with the market
- How and when to sell
- How to handle psychological pressures and emotion
- How to do effective fundamental analysis
- How to apply technical analysis and charting
- How to develop an overview that leads to profit.

Peter J. Poletti, M.B.A. Tuesday, March 18-April 8, 6:30-8:30 p.m. 3 sessions. Hellem 229. \$16.



BCEG-31

Surface Excavations in Rock

This seminar is designed to provide civil and mining engineers, and geologists with several approaches to rock slope engineering problems. Conventional design methods and new methods using the Block Theory of Goodman and Shi will be taught. Lectures will also be given on other very important aspects of rock slope engineering that are not often presented in conventional applied rock mechanics textbooks. These include: hydrology of rock slopes, instrumentation and rock reinforcement. Finally, a two-hour lecture on probabilistic approach to rock slope design will provide the participants with another tool in rock slope engineering. Course fee includes materials, lunches, and refreshments. Bernard Amadei, Ph.D., Dan Frangopol, Ph.D., and others. Wednesday, April 16, Thursday, April 17, 8:00 a.m.-6:30 p.m. and Friday, April 18, 8:00 a.m.-5:30 p.m. Three all-day sessions. Events/Conference Center, Room 4. \$525.

BCEB-29

What They Don't Teach You at Harvard Business School

This program features author-attorney Mark H. McCormack via satellite sharing insights, knowledge, and experiences useful for everyone who must negotiate in the practice of everyday business. From small deals to large, for small business owners to CEO's, McCormack will provide fundamentals of street-smart thinking so vital to strategic business decision making. McCormack, whose negotiating style helped turn a small investment into multi-million dollar sports management empire will expand beyond his famous writings in applying problem solving techniques to a variety of business situations. Friday, March 7, 9:30 a.m.-4:30 p.m. One all-day session. Events/Conference Center, Room 4. \$65.

Culture & Society

BCEG-71

At The Movies — A View of Life Stress In Contemporary Film

This course is intended to be entertaining and educational, involving a high level of student participation in discussion. One's experience of "life stress" is witnessed in the movies of our time and through our vicarious understanding of our favorite actors' roles, character development, and stressful life circumstances. Both comedy and drama are treated in good measure. Discussions are likely to cover love, sex, marriage, divorce, parenting, bereavement, hero worship, and societal censorship, plus other topics of interest. If you like going to the movies and vicariously experiencing life through this medium, this class is for you. Stephen E. Walker, Ph.D. Wednesdays, March 12-April 23, 7-10 p.m. 6 sessions. Location given at registration. \$68.

BCEG-43

Biology of Women

Interest in women's health has become a vital concern to everyone. This course will be meaningful to any woman — regardless of her educational background or her age. The course will cover the events of a woman's reproductive life, controversies in the treatment of breast cancer, and social and cultural factors that influence a woman's nutrition, physical activity, and use of cosmetics. By knowing some of the important medical facts that have come out of recent research studies, a woman will not only make better decisions regarding her health care, but she will also be able to talk to health professionals on a professional level. Margaret Goodhue, Ph.D. Thursdays, February 13-April 10, 7-9 p.m. 8 sessions. Ketchum 185. \$56.

BCEG-46

Chinese Character

We will see how easy it is to recognize and also to write these beautiful and exotic Chinese symbols. The apparent complexity changes into simplicity, order and richness in association and philosophy. This is an introductory course for people who want greater appreciation of Chinese language, Chinese mind in a holistic way, and also for people who want to get more in touch with themselves through studying these powerful visual symbols of a culture so different from the Western culture in many ways. These symbols, probably more than anything else, are responsible for uniting the culture and people for about 4,000 years. A Chinese-English dictionary (approximately \$13) which uses Pinyin, the official romanization in China, is required. This is available at CU Bookstore. *The Learners Chinese-English Dictionary*, by Nanyang Siang Pau, Umum Publisher, is recommended for its inclusion of sentences as examples. Yunn Pann, M.S. Mondays and Wednesdays, February 10-March 3 (no class session February 24), 7-9 p.m. 8 sessions. Hellem 271. \$44.

BCEB-24

Creative Imagination: How to Get What You Want

At birth, we were given a \$1 billion computer. Now we need an operator's manual. As G.B. Shaw said, "We can live life as a passionate expression of our limitation." *It's not what we are that stops us. It's what we think we are not.* This course stresses overcoming individual barriers to creativity. Be prepared to redesign your vision for life. Phyllis J. O'Rourke, B.A. Saturdays, April 19 and 26, 9 a.m.-4 p.m. Two all-day sessions. University Club, Main Lounge. \$46.

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Details on page 65.

BCEG-37**The Early Warnings Signs of Divorce**

In this seminar, immediately useable information will be given on such topics as: acknowledging disillusionment, dealing with the loss of connection, friendship, partnership, and self-esteem, how to handle a more distant spouse, dealing with anger and hostility, how people sabotage their intimate relationships, using communication more effectively, and keeping yourself healthy throughout all of this. Neil Rosenthal. Wednesday, February 19, 7-9:30 p.m. One session. UMC 422. \$20.

BCEG-40**Earth Shelter Design**

This course is designed as an introductory course covering definitions, site analysis and evaluation, solar application, structural systems, floor plans, daylighting, waterproofing insulation, and any class-requested topics. Almost 300 buildings will be shown and evaluated for the ideas that apply to each class member's particular circumstance. Pamm McFadden. Tuesdays, February 11-March 18. 6 sessions. Hellems 287. \$39.

BCEH-14**Forest Crossen's Colorado**

Forest Crossen, popular local historian, will deliver a series of five lectures highlighted by his unique insights and personal experiences. Lecture topics concern fascinating old-time culture and people — artists, miners, and many others — in a personalized view of Colorado history. Mr. Crossen draws from a wealth of western knowledge; he has written 12 books of true western stories entitled *Western Yesterdays*. All those interested in Colorado will find these lectures rewarding. Extra time is reserved for questions. Forest Crossen. Wednesdays, February 12-March 12, 7-8:30 p.m. 5 sessions. Hellems 193. \$27.

BCEG-68**Fundamentals of Meditation**

Sitting, breathing, visualization, and slow movement meditations adapted from the Tibetan meditative and medical traditions. Excellent for learning to relax under pressure, and increasing physical vitality, emotional balance, and mental clarity. Easily learned, and suitable for all ages and physical conditions. Discussion covers theory, questions, daily living applications. Please bring to class a firm cushion or exercise mat. Ralph McFall. Tuesdays, February 11-April 8, 7:30-9:30 p.m. 8 sessions. Hale 6. \$56.

BCEG-44**The Goal Mind Workshop**

Unlock the GOLD MINE of your GOAL MIND. Mark Twain said that most people don't know what they want, but they are pretty sure they don't have it. The GOAL MIND workshop unlocks your potential for success in career, family, life, good health, and more. Learn how to set goals and achieve them through proven techniques of personal and professional organization and management. Materials: 10 cassette tapes and workbook (purchased at first class session, \$70; making the total cost of this course \$140). Faith Hickman, Ph.D.; Kathleen Krenzel, M.A. Thursdays, February 13-March 13, 6:30-9:30 p.m. 5 sessions. Education 138. \$70.

BCEH-22**The Fascinating History of Colorado Railroads**

The colorful development of Colorado's railroads will be traced through fact, lore, and legend. Mining and lumbering were early important factors, but so were bribery, gunfighting, political maneuvering, weather, and drunken barroom scenes. Topics include feats of heroism and despicable actions, explored from a humanistic point of view, as they influenced spinning the steel web which would become Colorado's fabled rail network. Robert E. Rothe, Ph.D. Mondays, March 10-April 14, 7:30-9:30 p.m. and Saturday, April 19 for a day-long outing in the mountains. 7 sessions. Geology 127. \$42.

BCEG-33**Improving Health and the Quality of Life through Nutrition**

This seminar presents concise and practical nutritional information topics of general interest. Up-to-date research as it pertains to the role of essential fatty acids in preventing heart disease, the effects of sleep, moods and depression, and current consumer food issues such as the effects of aspartame on the body will be presented. In addition, brief updates on nutrition in relation to osteoporosis, hypertension, diabetes, premenstrual tension, and the immune system to be covered. Course fee includes materials, lunch, and refreshments. Peggy Phillips, M.Ed., R.D. Friday, April 11, 9:00 a.m.-5:00 p.m. One all-day session. Hilton Harvest House. \$95.

BCEG-45**Looking at and Changing Problem Behavior**

Whether we call them bad habits, unhealthy dependencies, or addictions, certain behavior problems can cause problems for self or others. Drinking, chewing, eating, loving, compulsive spending, gambling, running, TV, working... it's easy to get "hooked" and hard to make changes. This class offers thought-provoking material that will help the student understand the addictive process, recognize similarities in addiction patterns, as well as identify the high-risk "addictive personality." Class participants will learn that everyone is subject to unhealthy dependencies. They will also learn how to cope with life in healthier, more balanced, less destructive ways than by retreating to these unhealthy behavior patterns. Students are invited to modify or eliminate a problem behavior in their lives as the class progresses, with the support of the teacher, other students, and material shared in lecture. This is not a therapy group, but a safe place to look at problem behaviors. Nancy M. Adams. Wednesdays, February 12-April 9, 7-9 p.m. 8 sessions. Ketchum 118. \$56.



BCEH-24

Passage To India

The history and the culture of India, her archaeology, philosophy, ancient literature and arts, her medieval and modern history. A tableau of India today: a geographical, ethnological, political, cultural, and economic survey. A series of practical suggestions or advices for would-be travelers, businessmen, or residents in India, together with a vast array of data useful to the religious, sociological, or philosophical scholar. Also will include a special study of India's role in international affairs since Independence and in the near future. Côme Carpentier, B.A.C. Tuesdays, February 11-April 8, 7-9 p.m. 8 sessions. Hellems 181. \$56.

BCEG-59

The Psychology of Intimacy

What goes wrong in intimate relationships and why? Why intimate relationships are so hard to find and maintain; the function of power struggles, arguments, conflicts and affairs; how to evaluate a potential partner before you get too emotionally involved. This seminar will preview the instructor's forthcoming book by the same title. Neil Rosenthal. Saturday, February 22, 10 a.m.-5 p.m. One all-day session. UMC 422. \$35.

BCEG-70

Self Defense For Women

This course is designed specifically to teach adults the positive aspects of self-defense. It combines aerobic fitness, coordination work, basic martial arts, and fun. Besides teaching physical skills, the course emphasizes assertiveness training and positive mental attitude development. The course relies on organized progressive instruction, enthusiasm, and sensible, practical techniques. Melanie Murphy. Mondays and Wednesdays, February 10-February 26, 5:30-7 p.m. 6 sessions. Hale 6. \$42.

BCEG-41

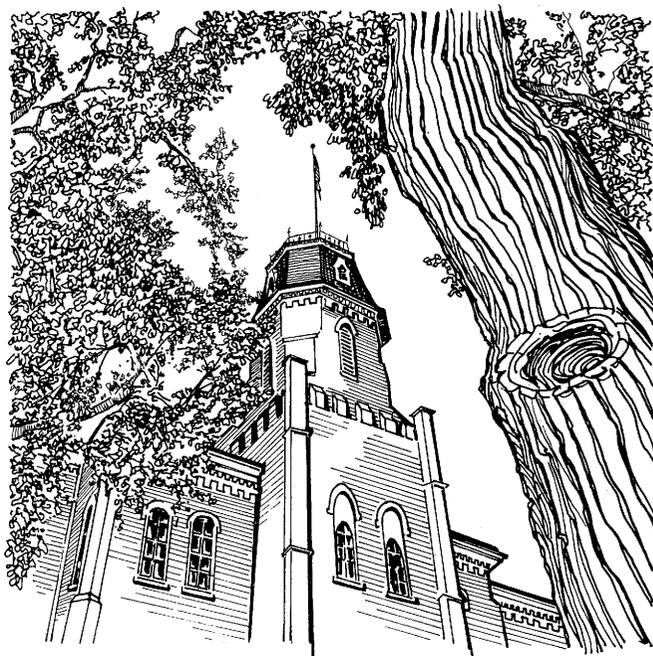
Stress Management and Biofeedback

This course focuses on the origins of stress on personal, biological, and psychosocial levels. Stressors and symptoms are identified and methods for coping and adjusting to stress are taught. Principles of biofeedback are demonstrated and used to counteract stress through the application of health care principles and self-regulation. Skills acquisition is the goal while tension, bruxism, depression, headaches, and anxiety are the topics. Toby F. Link, Ph.D. Wednesdays, February 12-March 12, 6:30-8:30 p.m. 5 sessions. Ketchum 119. \$42.

BCEG-47

Today's World of Gemstones

Myth, Magic and Reality. Glass or Diamond? Gemstone or imitation? This course will give the student a basic knowledge of gemology, including history, geography, mining, color, cutting, crystal structure, and distribution as it applies to diamonds and colored stones, with a focus on consumer awareness. Barbara Hight, gemologist. Mondays, February 10-March 17, 7-10 p.m. 6 sessions. Hellems 263. \$63.



Social Dance

BCED-14

Beginner's Ballroom Dancing

Introduction to the basic steps in Foxtrot, Tango, Jitterbug Rock-n-roll, Polka, and Waltz. The instruction shall include the necessary turns and animations to provide every participant an immediate gratification in Ballroom Dancing. Van F. Pool. Tuesdays, February 11-March 11, 6:30-7:45 p.m. 5 sessions. Hale 303. \$22.

BCED-16

Intermediate Ballroom Dancing

An **Intermediate Level** class (Beginner's is not a prerequisite but would be helpful) which will review the basic steps offered in the Beginner's course. Furthermore, the instruction will expand on the various combination of routines and additional latin steps (e.g. Cha Cha and Rhumba). Van F. Pool. Tuesdays, March 18-April 22, 6:30-7:45 p.m. 5 sessions. Hale 303. \$22.

BCED-18

Advanced Ballroom Dancing

An **Advanced Level** course (suggested prerequisite either Beginner's or Intermediate, or preferably both) which assumes that participants are comfortable with most of the basic steps and turns. The instruction will expand on the previous courses' combination of routines and refinements for smoothness within each movement of Ballroom Dancing. Van F. Pool. Tuesdays, April 29-May 13, 6:30-7:45 p.m. 3 sessions. Hale 303. \$14.

BCED-15**Beginner's Country Swing and Texas 2-Step**

Introduction to the basic steps in Texas 2-Step, Country Swing, Country Waltz, and various line dances (e.g. Cotton-eyed Joe and 10 Count Shuffle). The instruction shall include the necessary turns and animations to provide every participant an immediate gratification in Country Dancing. Van F. Pool. Tuesdays, February 11-March 11, 9-10:15 p.m. 5 sessions. Hale 303. \$22.

BCED-17**Intermediate Country Swing and Texas 2-Step**

An **Intermediate Level** class (Beginner's is not a prerequisite but would be helpful) which will review the basic steps offered in the Beginner's course. Furthermore, the instruction will expand on the various combination of routines and additional steps (e.g. Triple Step and 16 Count Shuffle). Van F. Pool. Tuesdays, March 18-April 22, 9-10:15 p.m. 5 sessions. Hale 303. \$22.

BCED-19**Advanced Country Swing and Texas 2-Step**

An **Advanced Level** course (suggested prerequisite either Beginner's or Intermediate, or preferably both) which assumes the participants are comfortable with the basic steps and turns. The instruction will expand on the previous courses combination of routines and refinements for smoothness within each movement of Country Dancing. Van F. Pool. Tuesdays, April 29-May 13, 9-10:15 p.m. 3 sessions. Hale 303. \$14.

BCED-20**Beginner's Jitterbug Rock-N-Roll**

Introduction to the basic steps in single time Jitterbug Rock-n-Roll. The instruction shall include the necessary turns and animations to provide every participant an immediate gratification in Jitterbug Dancing. Van F. Pool. Tuesdays, February 11-March 15, 7:45-9 p.m. 5 sessions. Hale 303. \$22.

BCED-21**Intermediate Jitterbug Rock-N-Roll**

An **Intermediate Level** class (Beginner's is not a prerequisite but would be helpful) which will review the basic single time steps offered in the Beginner's course. Furthermore, the instruction will expand on the various combination of routines and additional steps (e.g. Triple Time Jitterbug and Double Time Jitterbug). Van F. Pool. Tuesdays, March 18-April 22, 7:45-9 p.m. 5 sessions. Hale 303. \$22.

BCED-22**Advanced Jitterbug Rock-N-Roll**

An **Advanced Level** course (previous courses are not prerequisites but would be helpful) which assumes the participants are comfortable with the basic steps and turns. The instruction will expand on the previous combination of routines and refinements for smoothness within each movement of Jitterbug Dancing. (Additional steps would include Lindy Jitterbug.) Van F. Pool. Tuesdays, April 29-May 13, 7:45-9 p.m. 3 sessions. Hale 303. \$14.

Fine Arts**BCEM-17****Introduction to the Highland Bagpipe**

Basic history of the highland bagpipe and its role in the world today. Basic music theory as it applies to the bagpipe, and the playing of the bagpipe. Instruction will begin on the practice chanter and will include proper finger position and the basic scales and gracenote movements. Depending on the progress, tunes will be taught. Introduction to the classical music for the bagpipe: Piobaireachd or Ceol Mor. Each enrollee will be required to buy a tutor book (at the first class session, \$7) and a practice chanter (discussed at the first class session, between \$27 and \$60). Mark E. Ryan, M.A. Thursdays, February 13-April 24, 7-9 p.m. 10 sessions. Hale 204. \$70.

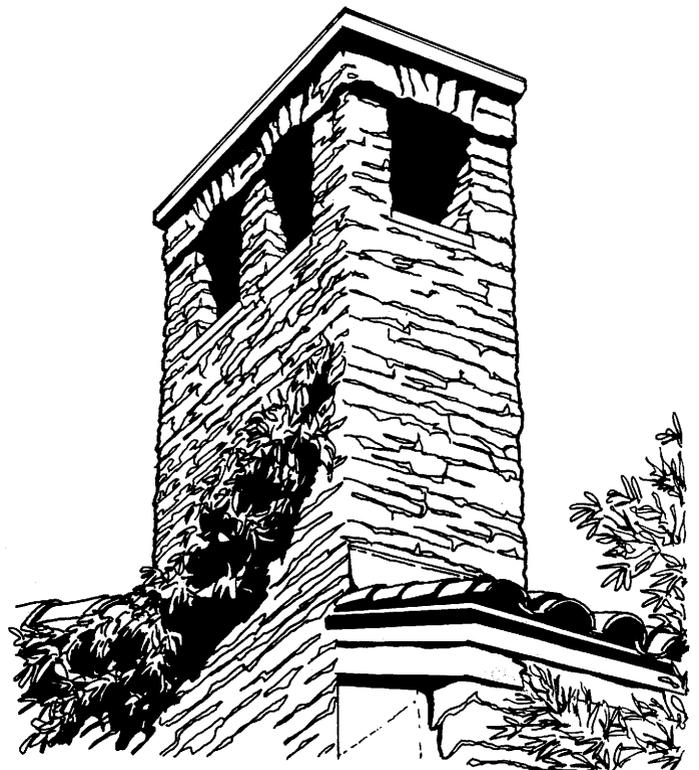
BCEF-11**Black and White Darkroom Photography for Beginners**

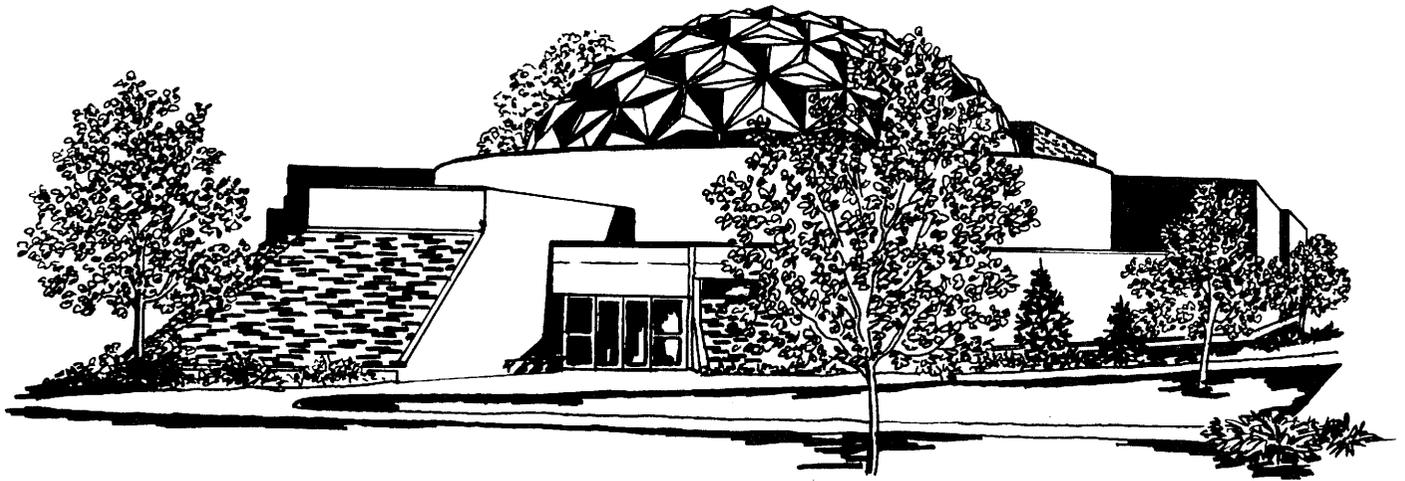
An intensive darkroom course in basic techniques of processing and printing black and white film. Students will begin with processing a role of exposed film. Negatives will be analyzed and composition discussed. Sessions will also cover choice of contrast papers, filters, and darkroom techniques. A 35mm camera and a basic understanding of working with a camera required. Some lab time is by special arrangement. There is a lab fee (generally the maximum of \$35) which will be discussed at the first class. Marga Querin, B.F.A.

Section I: Mondays and Wednesdays, February 10-March 5, 7:30-9:30 p.m.

Section II: Mondays and Wednesdays, April 7-April 30, 7:30-9:30 p.m.

Both Sections: 8 sessions. UMC Room 314. \$56.





BCEA-41
The Care of Photographic and Fine Printed Art

Have you ever wanted to know how to mat a picture or mount a photograph? Now is your chance to learn. This workshop will cover that and more. We will join frames, fabric cover mats, and practice heat mounting. Learn about framing textiles as well as paper art. If you have any questions about something you have, bring it along to this hands-on lecture/workshop. Course is conducted at instructor's Nederland studio (map given at registration) and refreshments will be served. Bring a sack lunch. Enrollment is limited. Sharon Hall, B.F.A. Saturday, March 22, 10 a.m.-4 p.m. One all-day session. Location given at registration. \$29.

BCEA-43
Creative Darkroom Procedures

This class is to allow any type of photographer to advance his or her own black and white work. Those of you who don't think you're creative, let this class prove you wrong. We will learn techniques such as Kodalith Printing and Solarizing Prints, as well as direct printing. There will be a \$35 darkroom use fee collected at the first class. Other costs can be expected, \$10-up, depending on student's needs and ambitions. Marga Querin, B.F.A.

Section I: Tuesdays and Thursdays, February 11-March 6, 7:30-9:30 p.m.

Section II: Tuesdays and Thursdays, April 8-May 1, 7:30-9:30 p.m.

Both Sections: 8 sessions (additional sessions by arrangement). UMC, Room 314. \$56.

BCEA-42
Creative Photography Workshop

A unique photography course for the beginning and intermediate photographer. It's designed to help you make more exciting photographs by exposing you to the ideas and works of the masters; teaching over a hundred creative techniques; and continual feedback for the work you'll produce in the class. Slide presentations will be used in our discussions, and each student will receive detailed handouts on all the techniques covered in the class. There will be an opportunity for open discussion on individual questions and problem solving. Special assignments will be given to help in motivation. Instruction will be complemented by a personal evaluation of each student's work. Harry Boyd. Thursdays, February 13-27, 7-10 p.m. 3 sessions. Hellems 247. \$35.

BCEF-15
Life Drawing

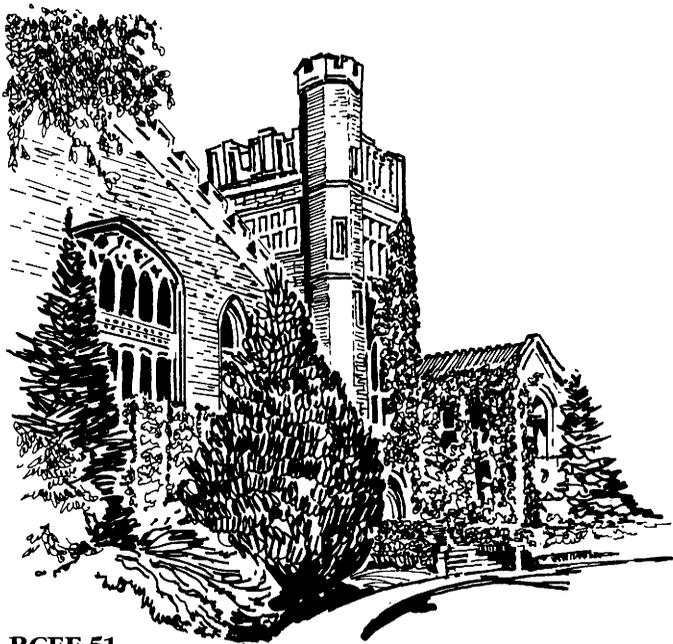
Through a series of exercises in learning how to see and respond, drawing will become a skill that belongs to you. Life drawing is a matter of seeing and coordinating your eye with your hand. We will begin with gestural drawings, proceed to contour line drawings, and deal with surface shading and modeling techniques. Bring to first class 18"x24" newsprint pad and pencils (2H, HB and 2B). Tuition includes fee for a model who will be present at every session. Barbara Preskorn, M.F.A. Thursdays, February 13-April 10, 7-9 p.m. 8 sessions. Fine Arts C-135. \$62.

BCEF-10
Beginning Photography

This class teaches the basic fundamentals of 35mm photography, with emphasis on exposure, compositions, and the variety of film types available. There will be a field trip and a review session to critique the exposures made during the course. Especially helpful for beginners or those who have never taken a photography course. The course will help you develop a solid technical background, as well as help you get the most from your most important images. (Field trip arranged in class.) John Dziadecki, M.F.A. Tuesday, February 11-April 8, 7-9 p.m. 8 sessions. Hellems 285. \$56.

BCEM-18
The Art of Piano Improvisation

Many composers including Bach, Beethoven, Mozart, and Handel were as famous for their improvising as for their written compositions. Many people feel that improvisation is the continuation of the initial inspiration that forms the basis of all creativity. Topics: the use of sound, developing a musical language, finger patterning, rhythmic/harmonic exercises. Brian Golden. Tuesdays, February 11-April 9, 7-9 p.m. 8 sessions. Hellems 271. \$56.



BCEF-51
Basics of Printing: Using a Handpress

Have you enjoyed beautiful, unique, old-fashioned printing? Have you wanted to learn more about it? If so, this course is for you. The course introduces the novice to typesetting, type styles, printing a keepsake, press runs, and managing materials, using a turn-of-the-century Chandler and Price press at the Colorado Typographical Society in Norlin Library. Bring an apron to each class. Enrollment is limited. Nora J. Quinlan, M.S., M.A. Saturdays, February 22, and March 1, 8, 10 a.m.-1 p.m. 3 sessions. Norlin Library Rare Books Room N345. \$39.

BCEF-25
Printmaking: Intaglio Workshop

Designed to teach the fundamentals of intaglio. Intaglio is a printing process in which an image is either cut directly or bitten by acid into a metal plate. Ink is forced into this cut or bitten image, the plate is wiped clean, and a print is made when plate and paper are run together under pressure through an etching glass. Techniques including engraving, dry-point, mezzotint, hard and soft-ground etching, aquatint, and relief printing will be demonstrated. The course is open to beginners as well as more experienced artists. There will be a \$10 fee payable at the first class for nitric acid, solvents, etc. Tim Diffenderfer, M.F.A. Wednesdays, February 12-April 9, 7-10 p.m. 8 sessions. Fine Arts C-135. \$63.

BCEF-32
Selling Your Photography

This is a seminar for the amateur or "semiprofessional" photographer who wishes to make extra money from his or her photography. Business and marketing practices for selling stock photographs will be discussed extensively. Topics include working for magazines and freelancing in the Rocky Mountain market. Participants will also receive helpful hints and learn creative techniques that will make their work more attractive to potential buyers. Harry Boyd. Saturday, February 22, 9 a.m.-4 p.m. One all-day session. Business 125. \$32.

BCEM-11
Songwriting for Fun and Profit (But Mostly Profit)

While nothing can replace creative talent and energy in writing great songs, this workshop can help you direct your talent to its highest potential. We will explore how to write melodies and lyrics, dealing with writer's block, merchandising your songs, copywriting your song's collaboration, and writing songs for the new film and video markets. Students are encouraged to bring cassettes of their songs for discussion. Includes publisher contracts and copyrights for sheet music, records, and performing rights. We'll also discuss writing commercials. Dick Weissman. Saturday, March 1, 1-5 p.m. 1 session. Business 125. \$32.

BCEF-16
Watercolor Techniques

Watercolor techniques will be taught utilizing techniques of Transparent and Opaque watercolor, with an emphasis in Basic Color Theory, learning how to use the color wheel and develop individual painting style. Still-life composition and ink resist watercolor will also be taught. The first class will include materials list and exercise lessons in color theory and composition. Notebook and pen needed for color theory notes. Left brain-right brain exercises are also included in the course, along with specific drawing assignments, in order to stimulate and facilitate learning a variety of methods. Gail Marr, B.F.A. Wednesdays, February 12-April 9, 7-9 p.m. 8 sessions. Guggenheim 3. \$56.

BCEA-44
Woodcarving Sculpture

An intermediate class for students to begin work in this media. Carving techniques and instructions will focus on three dimensional projects, waste wood, and time-saving equipment. Cost of wood and tools \$15-20. Class size limited to 10. Barbara Cox, B.F.A. Mondays, February 10-April 7, 7-9 p.m. 8 sessions. Fine Arts C-135. \$56.

Languages

BCEL-25
Beginner's Conversational French

This course is for anyone interested in learning the French language and culture. We will be studying essential verbs and vocabulary and enough grammar to comprehend and use basic French in different situations. Conversational French will be stressed. With support of other class members, you start asking questions in the first class. Work with small groups will emphasize the practice of the language. Tapes will be used in a language lab for pronunciation. Required textbook is *Le Francais, Depart-Arrivee* (second edition) by John A. Rassias, available at the University Bookstore on Campus. Nadia Turk, Ph.D. Mondays, February 10-April 21, 7-9 p.m. 10 sessions. Hellem 181. \$70.

Noncredit/Certificate Registration
 Phone-In Registration



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 443-8979
 443-9973



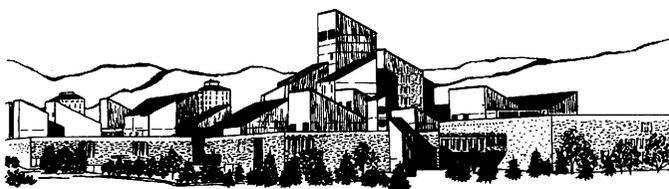
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 Details on page 65.

BCEL-41 **Intermediate Conversational French**

A more advanced course for the student with a good French background. Keeping grammar to a minimum, we will concentrate on vocabulary, idiomatic expressions, and conversation. Emphasis is put on improving conversational skills. The topics discussed will often be based on texts read in class or prepared at home; and on reports made by the students themselves, supplemented by class hand-out materials. Marie-Christine Joslyn. Tuesdays, February 11-April 22, 7-9 p.m. 10 sessions. Ketchum 33. \$70.

BCEL-26 **Advanced Beginners Conversational French**

This course is designed for students who have had one course in beginning French and would like to learn more about the language: vocabulary, other tenses, and practice what they already know. Students should be able to use the present tense before entering this class. Conversational French will be stressed. Working with small groups will emphasize the practice of the language. Required textbook is *LeFrançais, Depart-Arrivee* (second edition) by John A. Rassias, available at the University Bookstore on campus. Nadia Turk, Ph.D. Wednesdays, February 12-April 23, 7-9 p.m. 10 sessions. Ketchum 120. \$70.



BCEL-30 **German for Beginners and Travelers**

Would you like to take a boat trip on the beautiful Rhine River? How about a visit to the old and exciting Hanseatic cities like Hamburg and Lubeck in northern Germany? Or a visit to Vienna, Austria, waltzing to its original music? Many people in many countries in Europe understand German and therefore we will have lots of emphasis on conversation and how to get along in many interesting situations over there. We cannot promise you a genuine Wiener Schnitzel but we can promise you that you will be able to order one. Text to be used is sold at the first class session, \$15. Heike Gümpel, B.A. Tuesdays, February 11-April 22, 7-9 p.m., 10 sessions. Hellems 199. \$70.

BCEL-31 **Intermediate German**

For students who have taken an introductory course or have otherwise gained some background in spoken German. Emphasis is put on improving conversational skills, but reading and writing will also be part of the course. Course features a variety of methods to stimulate and facilitate learning, and enjoy the language in the process. Text to be used is sold at the first class session, \$15. Heike Gümpel, B.A. Wednesdays, February 12-April 23, 7-9 p.m. 10 sessions. Hellems 287. \$70.

BCEL-12 **Beginning Conversational Italian**

This course, designed for students with minimal or no knowledge of Italian, will offer an introduction to the basic skills of speaking, listening, reading and writing, with emphasis on the first two. Grammatical concepts will be taught through dialogues, songs, and conversations, so that students may ultimately enjoy speaking simple Italian. Required text is *Italiano Parlato*, by Norman Hilton, available at the University Book Center, UMC 10. Maris Gaudiano, M.A. Mondays, February 10-April 21, 7:15-9:15 p.m. 10 sessions. Hellems 185. \$70.

BCEL-28 **Intermediate Conversational Italian**

A more advanced course for students who have had beginning Italian or equivalent and would like to complete the textbook, learn more vocabulary, tenses and moods, and improve their conversational skills. Hand-outs provided in class. Required text is *Italiano Parlato*, available at the University Book Center, UMC 10. Maris Gaudiano, M.A. Tuesdays, February 11-April 21, 7:15-9:15 p.m. 10 sessions. Hellems 185. \$70.

BCEL-27 **Advanced Italian Discussion Group**

Designed for people who can communicate in Italian and have an interest in a high level of involvement and participation in the class. The purpose of this course is to further improve the class members' conversational skills while strengthening each one's (instructor included) creative, enthusiastic, critical, stimulating thinking. A sharing experience in Italian. Each lesson will have a different subject: art, psychology, food, literature, travel, philosophy, cinema, and virtually anything the class members will decide to choose. The first topic will be "I am . . ." Reports made by participants, supplemented by tapes and hand-outs, will constitute the class materials. Maris Gaudiano, M.A. Wednesdays, February 12-April 22, 7:15-9:15 p.m. 10 sessions. Hellems 185. \$70.

BCEL-37 **Speaking Mandarin—Beginning Chinese**

Thinking of a trip to mainland China or Taiwan? Chinese people tend to feel a great deal of affinity, appreciation, and fascination toward foreigners who speak (some) Chinese. This intensive class is conducted in an atmosphere that encourages both the intellect and the intuition. We will take part in games, role playing, guided imageries, and also sessions with classical and baroque music, the basic structure of "Suggestology." *The China Traveler's Phrasebook* by Lee and Barne, Eurasia Press, \$6, is required. This is also an excellent pocket-size book to take with you on your Chinese journey. The companion tape (\$6) is highly recommended. Available at CU Bookstore. Yunn Pann, M.S. Tuesdays and Thursdays, February 11-27, 6:30-9:30 p.m. 6 sessions. Hellems 193. \$63.

BCEL-15
Beginning Conversational Spanish

Spanish for travelers. Basic but lively conversational Spanish for travel to Spanish-speaking countries. Course includes short field trips during class time to emphasize practical vocabulary. Elizabeth Medina, Ph.D. Tuesdays, February 11-April 22, 7-9 p.m. 10 sessions. Hellems 245. \$70.

BCEL-16
Intermediate Conversational Spanish

Designed to increase vocabulary and conversation ability for travelers. Cultural and social aspects will be introduced. Prerequisite, beginning Spanish or equivalent. Elizabeth Medina, Ph.D. Thursdays, February 13-April 24, 7-9 p.m. 10 sessions. Hellems 251. \$70.

Parent & Teacher

BCEG-48
Choosing a College

This intensive eight (8) hour seminar teaches High School students how to proceed in an orderly and efficient manner in choosing and applying to undergraduate institutions. This seminar begins with an in-depth discussion of factors to be considered in this important decision. Various national rankings of colleges are discussed, and a sample college application essay composed. The essays will be critiqued by the instructor with specific emphasis on issues such as selling yourself without sounding conceited or boring. Specific guidelines and grammatically precise writing techniques are emphasized. The seminar ends with a discussion regarding source of financial aid, campus interviews, and choosing a major. This course is intended to assist High School juniors and seniors, as well as younger students desiring to begin early and plan ahead. Enrollees should bring an unofficial High School transcript as well as a list of extracurricular activities and any college application forms. Scott Hatch, M.A., J.D. Saturday, January 11, 9 a.m.-5 p.m. One all-day session. Geology 108. \$75.

BCEB-66
Making College Affordable for Your Family

Soaring college costs are a fact of financial life. Early planning by parents is the single most effective way to reduce these costs, and the earlier the process starts, the more that can be saved. For example, proper planning can sometimes result in \$10,000 doing the work of \$40,000. Topics include:

- The concept of tax-free and tax-deferred growth
- Family tax methods
- Colorado Uniform Transfers to Minors Act
- Clifford Trust and spousal remainder trust
- Keyplan
- Investments for safety and growth

Peter J. Poletti, M.B.A. Tuesday, April 22, 6:30-8:30 p.m. One session. Hellems 229. \$19.

BCEG-35
Parenting the Gifted/Talented Child

Parents of the gifted and talented, like their special children, have distinct needs and often need direction and support. The sessions will include effective parenting, emotional/social development, resources and materials, current issues such as the gifted female, and discussion of individual children. This seminar is especially designed for parents of gifted/talented children, although educators are welcome. Dorothy Knopper, M.A. Saturdays, February 22 and March 1, 9:30 a.m.-12:30 p.m. 2 sessions. Ketchum 118. \$22.

BCEE-26
Taming Your Dragons: Creative Relaxation for Teachers and Parents

This course is designed to help parents and teachers (and others who work with children) revitalize their own energies for teaching and parenting. Participants will learn theories and methods for creating a more relaxed classroom or home environment. The course will focus on techniques for dealing with professional, family, and personal stress. There will be the option for children to be involved in one or more class sessions. Martha Belknap, M.A. Wednesdays, February 5-March 19, 6-8 p.m. 7 sessions. Ketchum 35. \$57.



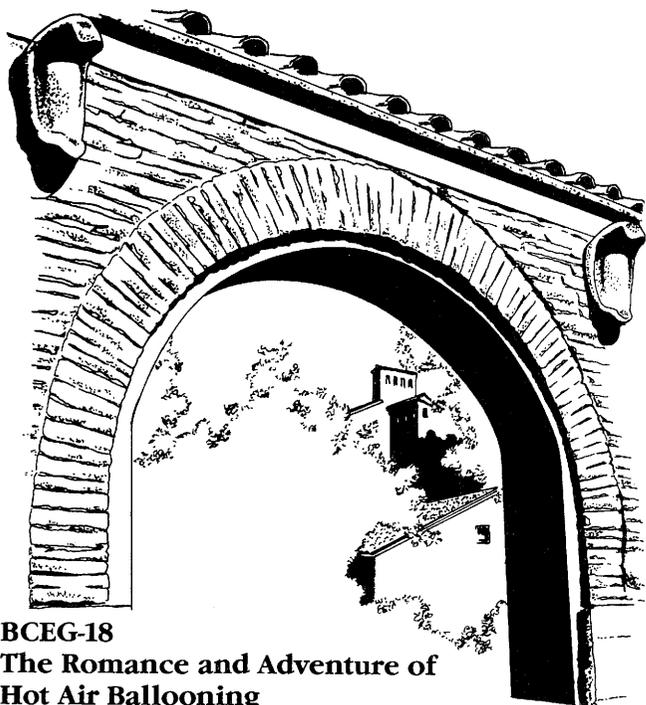
Sports & Outdoors

BCEG-42
Bald Eagles, Golden Eagles, Hawks, and More

Do you realize that Colorado rates high in the nation for number of wintering bald eagles? The eagles are found out east along the Platte River, and in the surrounding Boulder area. Class emphasizes specific raptor and hawk identification beyond the normal bird field guides. Owl identification will be stressed also. Carpooling. Binoculars helpful. Trip dependent upon weather. Tina Jones, Naturalist. Introduction date Friday, February 14, 6:30-8:30 p.m., and Saturday field trip, February 15, 8 a.m.-5 p.m. 2 sessions. Hellems 263. \$22.

BCEG-39
Birds of the U.S./Bird Hot Spots of the U.S.

Have you wondered where to find those bird species on your vacation or business trips throughout the U.S.? Students will learn identification (pointers more specific than in field guides) of out-of-state birds. The top 10 birding sites and more in the U.S. will be discussed, plus National Nature Conservancy, Audubon, and Federal Wildlife Refuge areas will be included. Bring a North American Field Guide to class. Many bird species of the U.S. will be discussed, with emphasis on Western species. After this class you can go on business trips and learn where to get more species of birds on your free afternoons. Tina Jones, Naturalist. Mondays, February 17 & 24, and March 3, 6:30-9:30 p.m. 3 sessions. Business 125. \$20.



BCEG-18
The Romance and Adventure of
Hot Air Ballooning

An introductory course in Colorado's sport of the Eighties. Did you know that this first form of human flight took place in Paris, France, 200 years ago? Topics include the history of ballooning, design, theory, and crewing procedures for launch and recovery. Students will become qualified as crew members with a hands-on opportunity in rigging and inflating a balloon. Wear comfortable clothes for this Saturday celebration of the most exotic sport afloat. Joyce VandeHoef. Saturday, April 5, 1-6 p.m. One session. Business 125. \$40.

BCEO-15
Residential Landscaping for Beauty, Water
Conservation, and Low Maintenance

Spring is a good time to work for the ideal landscaping you've always wanted. A private yard can provide recreation, privacy, food production, and beauty. It can also require relatively little water for maintenance if properly designed. After several slide show talks on design principles and plant materials, course participants analyze their own site and design a suitable landscape with the instructor's guidance. Well-thought-out landscaping and the thorough preparation that starts now adds beauty and value to your property. Bring to class a scale site plan and some photos of the property you want to design. Jim Knopf, M.L.A. Saturdays, April 12 and April 19, 9 a.m.-4:30 p.m. 2 all-day sessions. Business 125. \$45.

BCEG-20
Private Pilot Ground School

Have you always wondered what flying is like, but never made that first step? This course will introduce you to the exciting world of aviation. Subjects such as aerodynamics, navigation, meteorology, and aircraft performance will be presented in preparation for the FAA written examination. Sample tests will be presented. The student need not have any prior knowledge. Several airport field trips will be scheduled. David Nichols, B.S. Wednesdays, February 12-April 23, 7-9 p.m. 10 sessions. Hellems 263. \$95.

BCEG-74
Psychology & Sports

This course is designed to offer participants a high level of involvement in developing a mental training program for improved performance in athletic or other personal endeavors. Primary components include applied stress management, handling anger, motivation and training, mental rehearsal, neuromuscular memory training, concentration, centering, injury prevention and rehabilitation, and the acquisition of optimal poise. This course is applicable to general concerns regarding personal effectiveness as well. The emphasis in this program will be on skills acquisition, and material will be covered for a variety of settings. If you are interested in performance enhancement, this investment will serve you well. Stephen E. Walker, Ph.D. Wednesdays, February 12-March 5, 7-10 p.m. 4 sessions. Hellems 191. \$45.

BCEG-72
Sailing Seamanship: Cruising Under Sail

Comprehensive, practical course for all beginning sailors, armchair adventurers, and barnacle-encrusted old salts. The classes stress safe sailing skills, with opportunities to learn sailing. The course topics include sailing safety, design and performance of sailing craft, right of way rules and regulations, adverse weather handling and tactics, handling emergencies at sea, and related special topics of interest to all sailors. The "hands-on" on-water portion of this course is optional and can be flexibly scheduled by arrangement at an additional fee, with details at the first class. The materials fee for the ground school portion of this course is \$6.85 (payable in class), which includes text and handouts. Bill Plywaski, Ph.D. Thursdays, February 27-May 1, 7-9:15 p.m. 10 sessions. Hellems 255. \$79.

BCEG-19
Scuba Diving

A special course offered evenings with extensive in-water time in the Rocky Mountain Diving Center. Topics include basic skin diving and scuba skills, equipment handling and maintenance, first aid and rescue skills, and basic human physiology as it relates to scuba divers. Instructors are all NAUI, PADI, and SSI certified. After the course, an open-water dive will be made with Rocky Mountain Diving Center. Recommended text is *Sport Diving Manual*, available at the University Book Center. First class consists of a lecture followed by work in the water; bring a bathing suit and towel. **Note:** An \$85 materials fee is collected at the first class session, making the total cost for this course \$125. Class size is limited. Terry Danko.

Section I: Tuesdays & Thursdays, February 4-March 13.

Section II: Tuesdays & Thursdays, April 8-May 15.

Both Sections: 12 sessions. Rocky Mountain Diving Center, 1737 15th Street. \$40.

Noncredit/Certificate Registration	
Phone-In Registration	
	443-7968 443-8979 443-9973
	
MasterCard/VISA Details on page 65.	

BCEG-38

Spring Birdwatching: Unusual Migrants, Colorful Feathered Friends

Spring is the best time for birding because avifauna is full of bright colors. Some species of birds you normally would never see appear at this time of year, because of migration. Bird identification, nesting behavior, habitat requirements, food sources, and migration routes will be covered. Beginners, intermediates, and advanced birders welcome. Carpooling. Binoculars helpful. Trip is dependent upon weather. The second field trip will be scheduled later. Tina Jones, Naturalist. Introduction date Monday, May 5, 6-8 p.m., and Saturday, May 10, 7:30 a.m.-4:30 p.m., and another field trip to be arranged. 3 sessions. Business 125. \$36.

BCEG-32

Spring Wild Flowers: Their Uses and Identification

Enjoy Boulder's surrounding foothills beauty by knowing what grows here. Many flower species that bloom in the springtime do not bloom in the higher elevations in summer; therefore, they are unique and are found flowering only in May and early June. Use of botanical key will be included. Edible/medicinal uses of the plants will be mentioned. Flower parts, stems, leaf shape, soil content will be discussed. Carpooling. Field trip dependent upon weather. Tina Jones, Naturalist. Introduction date Thursday, May 15, 6-9 p.m., intro/plus field trip; Thursday, May 29 and June 5, 5:30-9:30 p.m. (field trips). Come first night prepared to go into field. 3 sessions. Business 125. \$29.

BCEG-17

Topics on Bird Behavior and Bird Characteristics

This is a brief introduction on some of the more interesting aspects of birds. Learn about plumage and molts, and when they occur. Causes of migration, weather influences on migration, and geographical distribution of migrants is included. Portions of the following will also be discussed: territory, mating, songs, courtship behavior, and bird anatomy. Tina Jones, naturalist/biologist. Thursdays, February 20, 27, and March 6. 6:30-8:00 p.m. 3 sessions. Business 125. \$19.

BCEG-36

Winter Animal Tracks, Signs, and Evidence

Have you wondered who made those fuzzy tracks in the snow and where they are leading? Animal tracks and scat will be learned, as well as mammal denning areas. Part of the field trip will be in Idaho Springs to see the Rosy Finches, a most spectacular sight, of hopefully the gray-crowned, brown-capped, and maybe some Black Rosys. These birds are seldom seen except in winter. Carpooling. Binoculars helpful. Dress warmly. Trip dependent upon weather. Tina Jones, Naturalist. Introduction date Wednesday, February 19, 6:30-7:30 p.m. and Saturday field trip, February 22, 8 a.m.-5 p.m. 2 sessions. Hale 105. \$24.

Special Noncredit Programs

The Division of Continuing Education also develops and produces high-quality results-oriented training seminars for business and industry, government agencies, and service organizations. Learning in a seminar format provides distinct advantages. The content is targeted and the time spent is short, learning is condensed and intensive, and meetings provide an opportunity to acquire important new skills. The faculty excel in their fields and in their ability to teach adults. Energetic and up-to-date, they are chosen from the best available across the nation. Programs cover a broad range of executive, secretarial, managerial, and technical areas. Many of these courses qualify for the Certificate Programs listed elsewhere in this catalog. Course descriptions include the page number where information can be found on the corresponding Certificate Program. Team discounts, CEUs (Continuing Education Units), and tailored in-company presentations are available. Brochures describing Special Noncredit Programs in greater detail are available upon request. Advance registration is necessary and must be accomplished at least two full weeks prior to the first day of the program. Call 492-8666 or toll free in Colorado, 1-800-332-5839 for registration information.



Special Noncredit Programs

By Starting Date, Spring 1986

Starts	Course	Faculty
February 7	Engineering Computing on the IBM PC	David E. Clough
February 20	Managing People	Randy Bauer
March 14	How to Work Smarter	Randy Bauer
April 11	Improving Health and the Quality of Life through Nutrition	Peggy Phillips
April 16	Surface Excavations in Rock	Bernard Amadei Dan Frangopol
April 19	Engineering Computing on the IBM PC	David E. Clough
April 23	Communication Skills for Secretaries and Office Support Staff	Randy Bauer
April 24	Productive Communication in the '80s	Randy Bauer
April 25	An Introduction to CAD on Personal Computers	David E. Clough William L. Wainwright Philip W. Morrow
May 8	Resort Condominium Management	Gerald G. Hewey
May 9	An Introduction to CAD on Personal Computers	David E. Clough William L. Wainwright Philip W. Morrow
May 20	How to Manage the Problem Employee	Randy Bauer

BCAC-68 Engineering Computing on the IBM PC

The IBM PC has become the standard of the personal computer market; yet its use in engineering applications is still in its infancy. Explore the capabilities and limitations of the PC for engineering computing during this two-day course. Learn about the software tools which can facilitate your numerical work, and improve your own personal computer skills.

- an intensive, hands-on short course
- a practical seminar for engineering professionals
- learn what the PC can and cannot do.
- take away useful applications software.

This seminar will take place in a classroom equipped with an IBM PC for each attendee. Necessary software packages will be provided for use during the course. During workshop periods, experienced aides will be available to provide you with individual assistance. Much material is covered in two days. However, most concepts are illustrated live, and you will carry out many of the methods yourself. This experience, along with the course documentation, will provide you with a lasting benefit from taking the course. This course qualifies for the Certificate in Computer Applications. Please see page 24 for details. Fee includes lunch both days. David E. Clough, Ph.D.

Section I: Friday, February 7, 8:30 a.m.-5:30 p.m. and Saturday, February 8, 10 a.m.-5:30 p.m.

Section II: Friday, April 18, 8:30 a.m.-5:30 p.m. and Saturday, April 19, 10 a.m.-5:30 p.m.

Both Sections: Two all-day sessions, 1.4 CEUs. Location given at registration. \$325.

BMDA-93 Managing People

This unique, one-day seminar will examine those skills necessary for success in a people management position. Participants will have an opportunity to learn motivation, communication, leadership, and time management techniques that can be used to improve work group and organizational effectiveness. Class participants will be actively involved in the learning process. Various discussion topics, role plays, and short lectures will be used to make the material vibrant and practical to participants. This course qualifies for the Management Development Certificate Program. See page 17 for details. Course fee includes lunch and refreshment breaks. Randy M. Bauer, M.B.A. Thursday, February 20, 9:00 a.m.-4:00 p.m. One all-day session. .6 CEUs. Hilton Harvest House. \$75.

BMDA-32 How To Work Smarter

Improve your productivity by learning practical techniques guaranteed to eliminate time-wasting behaviors, improve concentration, relax in the face of tension and stress-producing situations, and replace frustration with confidence and enthusiasm. Learn how to prevent burnout and achieve balance in your life. Though no prerequisites are required, this course is a follow-up to "Communication Skills for Secretaries and Office Support Staff" and "Productive Communication in the '80s." This course qualifies for the Management Development Certificate Program. Please see page 17 for details. Course fee includes lunch and refreshment breaks. Randy M. Bauer, M.B.A. Friday, March 14, 9 a.m.-4 p.m. One all-day session, .6 CEUs. Hilton Harvest House. \$75.

BCEG-33

Improving Health and the Quality of Life through Nutrition

This seminar presents concise and practical nutritional information topics of general interest. Up-to-date research as it pertains to the role of essential fatty acids in preventing heart disease, the effects of sleep, moods and depression, and current consumer food issues such as the effects of aspartame on the body will be presented. In addition, brief updates on nutrition in relation to osteoporosis, hypertension, diabetes, premenstrual tension, and the immune system to be covered. Course fee includes materials, lunch, and refreshments. Peggy Phillips, M.Ed., R.D. Friday, April 11, 9:00 a.m.-5:00 p.m. One all-day session. Hilton Harvest House. \$95.

BCEG-31

Surface Excavations in Rock

This seminar is designed to provide civil and mining engineers and geologists with several approaches to rock slope engineering problems. Conventional design methods and new methods using the Block Theory of Goodman and Shi will be taught. Lectures will also be given on other very important aspects of rock slope engineering that are not often presented in conventional applied rock mechanics textbooks. These include: hydrology of rock slopes, instrumentation and rock reinforcement. Finally, a two-hour lecture on probabilistic approach to rock slope design will provide the participants with another tool in rock slope engineering. Course fee includes materials, lunches, and refreshments. Bernard Amadei, Ph.D., Dan Frangopol, Ph.D., and others. Wednesday, April 16 and Thursday, April 17, 8:00 a.m.-6:30 p.m. and Friday, April 18, 8:00 a.m.-5:30 p.m. Three all-day sessions. Events/Conference Center, Room 4. \$525.

BMDA-31

Communication Skills for Secretaries and Office Support Staff

This seminar will examine those skills necessary for effective communication on the job. Participants will learn listening, human relations, conflict management, and assertiveness techniques that can be used to improve the communication process with superiors, coworkers, and the public. A combination of lectures, small group discussions, group exercises, and self-awareness activities promises to make this a meaningful, productive, and exciting learning experience. This course qualifies for the Management Development Certificate Program. Please see page 17 for details. Fee includes lunch and refreshment breaks. Randy Bauer, M.B.A. Wednesday, April 23, 9 a.m.-4 p.m. One all-day session, .6 CEUs. Hilton Harvest House. \$75.

BMDA-87

Productive Communication in the '80s

Employees at every level of organization will learn practical and useful skills that can be used to build more productive relationships with others at work. This seminar is an extension of Communication Skills for Secretaries and Office Support Staff, though neither course is a prerequisite for the other. This course qualifies for the Management

Development Certificate Program. See page 17 for details. Course fee includes luncheon, materials, and coffee breaks. Randy Bauer, M.B.A. Thursday, April 24, 9:00 a.m.-4:00 p.m. One all-day session. Hilton Harvest House. .6 CEUs. \$75.

BCAD-35

An Introduction to CAD on Personal Computers

Computer aided drafting/design (CAD) has recently become available for use with personal computers. This intensive short course is designed to provide timely experience using CAD on PCs for those who currently have no access to computer aided design tools and need to know how an affordable entry into this field will perform. The course will also be useful to those who are now using large complex CAD systems and want to assess the performance versus cost of PC-based tools. No in-depth experience in CAD or computer systems is required. David E. Clough, Ph.D., William L. Wainwright, Ph.D., Philip W. Morrow, B.S. Section I: Friday and Saturday, April 25 and 26, 8:30 a.m.-5:30 p.m.

Section II: Friday and Saturday, May 9 and 10, 8:30 a.m.-5:30 p.m.

Both Sections: Two all-day sessions, 1.4 CEUs. University Computing Center Graphics Lab, Room 137. \$175.

BCEB-23

Resort Condominium Management

This course is designed to give the student a comprehensive understanding of the management of the resort condominium. The following topics will be discussed: organization and structure of the association, property analysis, responsibilities of management, management contracts, relationships to the real estate industry, and specifics on the management of the resort hotel condominium. This course is an overview for resort and hotel personnel, condominium association officers and members, real estate salespeople and brokers, architects, developers, those interested in entering the field of resort condominium management, and commercial recreation students. Commercial recreation students may be eligible for one semester hour of credit. Fee includes continental breakfasts, breaks, and a reception. Gerald G. Hewey, C.H.A. Thursday, May 8, 9 a.m.-5 p.m.; Friday, May 9, 9 a.m.-4 p.m.; and Saturday, May 10, 9 a.m.-12 p.m. Two all-day and one half-day sessions. Events/Conference Center, Room 3. \$155.

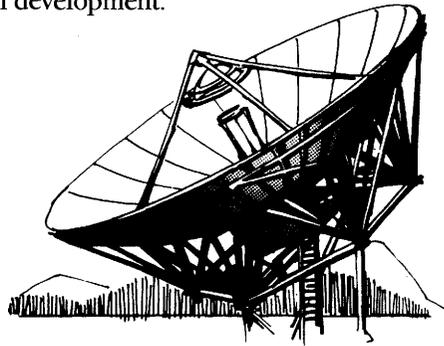
BMDP-72

How to Manage the Problem Employee

Designed for managers and supervisors at every level of the organization, this course covers specific techniques to confront and eliminate problem behavior in employees, remaining objective and in control in confronting a problem, and developing action plans to improve performance. Special emphasis is placed on early identification as a key to effectiveness, handling "attitude problems," and realistic disciplinary programs. This course qualifies for the Management Development Certificate Program. See page 17 for details. Lunch and refreshment breaks are included in the course tuition. Randy M. Bauer, M.B.A. Tuesday, May 20, 9:00 a.m.-4:00 p.m. One all-day session, .6 CEUs. Hilton Harvest House. \$75.

Video-Teleconferencing Programs

Keeping pace with current high standards, the Division of Continuing Education continues to offer popular, quality programs with its own state-of-the-art video teleconferencing system. Our new satellite receiving facility will ensure continual availability of various educational programs received through the National University Teleconferencing Network, WE Productions, and other sources. This teleconferencing venture will provide convenient and thorough coverage of broad subject areas including health, communication skills, high technology, business, and many other areas of professional development.



BCEA-40 Black Holes, Quasars, and Exploding Galaxies: In Celebration of Halley's Comet

This unique learning experience, featuring renowned astrophysicist Dr. William Kaufmann via satellite, will not only reveal the latest photographs of celestial missions, but also explore effective techniques used for observing and photographing the Halley's Comet phenomenon from the Continental United States. Program discussion will also cover the nature of comets, their origin, and comet lore. As a special added dimension, Dr. Kaufmann will address the exotic aspects of black holes, time machines, worm holes, and how black holes seem to be the source of energy inside quasars and exploding galaxies. Another highlight will be the showing of first time film footage from the CRAY super computer revealing matter falling on super massive black holes. This course will combine a local workshop with the satellite program to provide a learning opportunity for astronomers, teachers, students of astronomy, or anyone interested in celestial investigation. No scientific background is required for this day-long experience. Course fee includes lunch and refreshments. Joe Romig, Ph.D. Saturday, April 19, 9:30 a.m. -4:30 p.m. One all-day session. Events/Conference Center Room 4. \$65.

For more information, please call the Division at 492-8666, or if you are out of the Denver Metro area but in Colorado, call toll free 1-800-332-5839. Please send requests for written information to the Division of Continuing Education, Campus Box 178, University of Colorado, Boulder, Colorado 80309-0178.

The Division of Continuing Education and the Events/Conference Center announce the premier of a major video teleconferencing facility, available for public use, on the Boulder Campus. Combining sophisticated satellite receiving capabilities with a convenient and flexible meeting site provides the foundation for a successful teleconference. Find out how your group can take advantage of the unique opportunities to receive programming via satellite by calling Leigh Anne Youngren at 492-8666 or 1-800-332-5839 toll free in Colorado, outside the Denver metro area.

BCEB-29 What They Don't Teach You at Harvard Business School

This program features author-attorney Mark H. McCormack via satellite sharing insights, knowledge, and experiences useful for everyone who must negotiate in the practice of everyday business. From small deals to large, for small business owners to CEO's, McCormack will provide fundamentals of street-smart thinking so vital to strategic business decision making. McCormack, whose negotiating style helped turn a small investment into multi-million dollar sports management empire will expand beyond his famous writings in applying problem solving techniques to a variety of business situations. In addition, the session will provide the opportunity for participants to interact with a prominent local business leader in the discussion of practical negotiation and problem solving techniques. Fee includes refreshments and lunch. Friday, March 7, 9:30 a.m.-4:30 p.m. One all-day session. Events/Conference Center, Room 4, \$65.

Noncredit/Certificate Registration
Phone-In Registration



443-7968
443-8979
443-9973



MasterCard/VISA
Details on page 65.

Certificate In Multi-Image And Multi-Media Communications

In today's increasingly media-conscious business and arts environment, using only one medium to tell a story, create an impression, or sell a product for yourself or a client is commonly not enough. Multi-Image Multi-Media productions are currently being developed and used by many companies and industries in training employees, motivating, educating, and selling products and services. This certificate program merges artistic concepts and technology to create a curriculum that introduces you to the rapidly expanding field of multi-image multi-media. Whether your goals are to create a successful production career or develop dynamic artistic works or chronologies, this course of study has unique value to you.

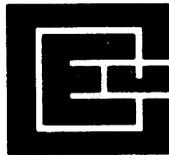
Course offerings cover the various aspects of industry standard, electronically controlled audiovisual communications media. The dynamic, hands-on approach of the workshops creates great career value for writers, photographers, programmers, artists, and designers. The technique lies in the control of the following equipment with a touch of a button: slide projectors, film projectors, audiotape recorders, electronically controlled programmers — including microprocessor programmers — and electronic projector dissolve controls.

The courses are conducted to develop an audiovisual practitioner's skills, knowledge and personal capability to communicate his or her messages quickly and accurately. This course of study makes it possible for the beginner, intermediate, and advanced student to get "hands-on" experience with the latest tools and techniques in training and information dissemination. Each course builds the student's AV and photography base, allowing the individual to respond quickly to the demands of the marketplace.

There are no strict prerequisites for the program and no formal application is required. However, the course of study is most beneficial to the technician or artist looking to expand his work to include new horizons in portfolio presentations, and to apply his skill in advertising, product promotion, multi-media artistic exhibitions, "road shows," campaigns and convention work. Special attention is always paid to develop a realistic hands-on professional experience by the use of lecture, sample presentations, expert actual projects, and extensive student use of studio equipment. The technology involved is also helpful to graduates of the Certificate in Commercial Design. The program is generally structured so that participants can achieve a Certificate in one year or three semesters.

Continuing Education Units are awarded for course completion and a transcript is maintained. Transcript copies are available at no charge upon request. 1.6 Continuing Education Units are awarded per course completed.

The Continuing



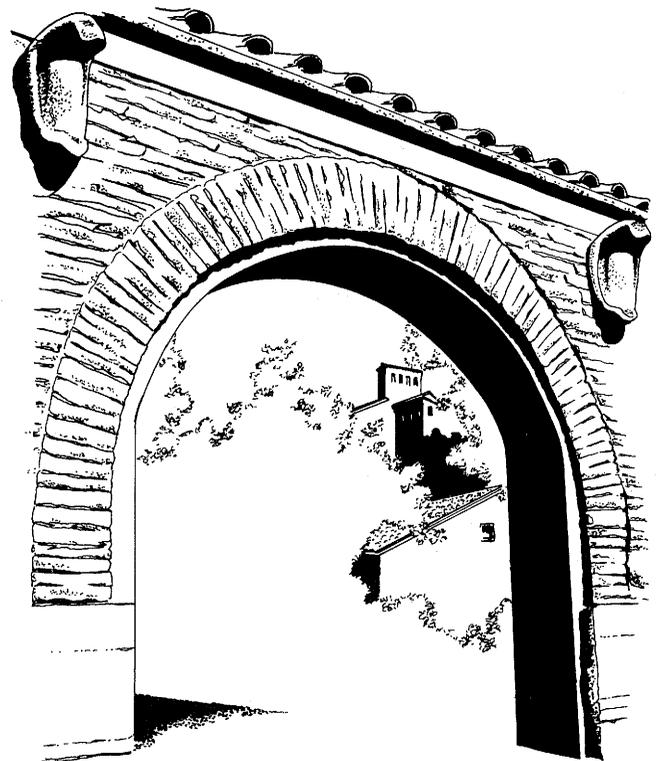
Education Unit ®

Faculty feature Raymond G. Otis. After 24 years experience as creative art director working on national advertising accounts in the area of corporate and consumer motivation, Mr. Otis is offering training in multi-media with emphasis on job skills for career entry into the corporate communication industry.

Certificate requirements may be completed in two or three semesters. Performance Certificates are awarded upon completion of an individual class. An Achievement Certificate is awarded only upon successful completion of the following three requirements:

1. Successful completion of four of the following six courses:
 - Storyboarding and Scriptwriting Techniques
 - Multi-Media Photography
 - Telecommunications, Tradeshows, Video Concepts
 - Advertising and Promotional Campaigns
 - Multi-Image Graphic Design and Computer Graphics
 - The Recording Session
2. At least four elective courses, which are offered regularly.
3. The presentation of a final show demonstrating advanced producer's skills and acquired visual and oral presentations abilities.

Locations and Tuitions are listed in the course descriptions. For Stadium 350, enter at Gate 11 stairway, up two flights. Please note that refunds are permitted only before the start of the course.



Certificate in Multi-Image and Multi-Media Communications

Courses by Starting Date, Spring 1986

Starts	Course
Friday, January 17	Multi-Media Videography Workshop
Saturday, January 18	Computer Animation/Business Graphics
Friday, February 21	*Multi-Image Graphic Design and Computer Graphics
Saturday, February 22	*Storyboarding and Scriptwriting Techniques
Friday, March 21	Multi-Image Programming Workshop
Saturday, March 22	Survey of Multi-Image/Computer Communications
Friday, April 25	*The Recording Session
Saturday, April 26	Multi-Media Survey and Video Workshop
Friday, May 16	*Multi-Media Photography
Saturday, May 17	Advanced Multi-Image and Computer Graphics

* = required Certificate courses

BMMA-79

Multi-Media Videography Workshop

This course emphasizes "Video-Visual Styles" and teaches visual communications skills with lecture, lab and hands-on exercises in the field of electronic information gathering. Skills developed include: Multi-Media Videography, Cinematography, and Multi-Image Camera Services. These media will be used to translate storyboard/scriptwriting into audiovisual extravaganzas. Previous video experience is recommended, but not required. Friday, Monday, Tuesday, January 17, 20, 21, 5:30-10 p.m. 3 sessions. Stadium 350. \$125.

BMMA-90

Computer Animation (Kinestasis)/ Business Graphics

This animation workshop covers the many "how-to's" necessary for achieving the motion-picture-like animation of slides. Demonstrations and hands-on animation slide programming will give students added flexibility and skill in this important subject area. Topics include computer-generated graphics to create animation sequences, special color to those images, and vital experimentation with the images. Please bring to class general art supplies, a few arts-oriented magazines for clipping, lay-out pad, and dry markers. Saturday and Sunday, January 18 and 19, 9 a.m.-5 p.m. Two all-day sessions. Stadium 350. \$105.

BMMA-83

Multi-Image Graphic Design and Computer Graphics

This course covers the integrated duties of the photographer, art director, artist, illustrator, and designer. All of these specialists get assignments that require research in client archives as well as creation of original graphics and/or photographic material. In-depth examination of treatment, theme, and concept execution is included, with emphasis on the program as a whole and its creative coordination from the artist's concept to the client's approval. Please bring to class general art supplies, a few arts-oriented magazines for clipping, lay-out pad, and dry markers. Friday, Monday, Tuesday, February 21, 24, 25, 5:30-10 p.m. 3 sessions. Stadium 350. \$105.

BMMA-81

Storyboarding and Scriptwriting

This course examines the various creative efforts needed to produce a multi-image presentation, beginning with research and scriptwriting, two basic skills that form the foundation of a production. Students will benefit from the scripts of writers who have successfully worked with clients in varied industries and businesses, such as telecommunications, travel, general consumer goods and automobiles. The four variations of the storyboard-animated action, live action, abstract (graphic), and combinations will be discussed, demonstrated, and practiced through a workshop series of exercises in the context of preproduction, budgeting, and creative visual styles. Please bring to class general art supplies, a few arts-oriented magazines for clipping, lay-out pad, and dry markers. Saturday and Sunday, February 22 and 23, 9 a.m.-5 p.m. Two all-day sessions. Stadium 350. \$105.

BMMA-92

Multi-Image Programming Workshop

From punch tape to microprocessor computer programming techniques, you will learn how to put together rehearsals and presentations as we examine the steps followed for programming equipment, rehearsals for the client, and transportation to the show site. This is where you stage and present your first show and where we look at the staging of the extravaganzas produced by our staff. Friday, Monday, Tuesday, March 21, 24, 25, 5:30-10 p.m. 3 sessions. Stadium 350. \$125.

Noncredit/Certificate Registration

Phone-In Registration



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Details on page 65.

BMMA-80
Survey of Multi-Media/Computer
Communications

This course is an excellent way to get a first-hand look at the state of the art in slide design; from computer graphics to tradeshows . . . how the graphic specialists design to the requirements of visual style, and how photographers, videographers, cinematographers, and camera-services work together and use computer graphics to create supergraphics of the '80s. Please bring to class a 35mm camera and film, or if available, a portable video camera. Saturday and Sunday, March 22 and 23, 9 a.m.-5 p.m. Two all-day sessions. Stadium 350. \$135.

BMMA-84
The Recording Session

Creating a multi-image/multi-media production, like script-writing and photography, is a specialized field, requiring study, workshops, and on-the-job experience to master. This course opens that opportunity up to persons with an entry-level curiosity as well as provides a valuable "wrap-up" for continuing students and professionals. Topics focus on:

1. The Recording Session. The contributions that sound people make to the pacing of a show are critical. A careful study of the recording techniques used in building a sound track will enable the students to make good audiotracks themselves or to learn to work with good sound engineers who can.
2. Rehearsals. Students will learn to put it all together as we examine the steps for programming equipment, rehearsing for the client, and transporting materials to the show site.

Friday, Monday, Tuesday, April 25, 28, 29, 5:30-10 p.m. 3 sessions. Stadium 350. \$125.

BMMA-97
Multi-Media Survey and Video Workshop

This course is a functional introduction to multi-media communications. The basics of *Videography* as applied to bio-media productions, convention and teleconferencing needs, special knowledge, skills and techniques are studied and then applied to a series of class exercises designed to prepare students for assignments in business, industry, and governmental video cassette production. Please bring to class a 35mm camera and film or, if possible, a portable video camera. Saturday and Sunday, April 26 and 27, 9 a.m.-5 p.m. Two all-day sessions. Stadium 350. \$105.

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For other course information:
492-5148

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Complete registration information, page 65.
Before January 13, after February 21, call
492-5148.

BMMA-82
Multi-Media Photography

The visual style of a multi-image presentation grows out of two factors: the artistic sensibilities of the photographer, animator, or illustrator, and the underlying theme of the presentation. This course focuses on the creative multi-media photography process from the artist's concept to project completion. Topics cover cinematography, video, stage and lighting considerations, multi-image computer programming requirements, as well as photographic and artistic skills for the industry. Special emphasis is given to proper visual techniques highlighting the presentations theme. Please bring to class a 35mm camera, indoor/outdoor film, and tri-pod. Friday, Monday, Tuesday, May 16, 19, 20, 5:30-10 p.m. 3 sessions. Stadium 350. \$105.

BMMA-86
Advanced Multi-Image and Computer Graphics

Topics include the fast-growing computer-generated and computer-assisted graphics industry. Students will get demonstrations with a hands-on multi-image camera field trip and demonstration, with hands-on computer graphics keyboard during a field trip, held second class session. This advanced seminar presents a developed series of exercises to demonstrate how simple art is used to create a wide range of sophisticated images on film chips and CRT terminals. Students will be taught to manipulate images, to animate, and to integrate special effects, producing automatically controlled, consistently repeatable multi-image supergraphics. Field trip information is given at first class session. Saturday and Sunday, May 17 and 18, 9 a.m.-5 p.m. Two all-day sessions. Stadium 350. \$195.



Cooperative Real Estate Certificate Program

The program offers more than 20 interesting courses in all phases of real estate including finance, appraisal, property management, tax factors in real estate, commercial investment, contracts, construction and techniques of selling. The program is open to all persons seeking to increase their information in this valuable field.

For more information and course registration, call the Division of Continuing Education, Real Estate Education, 492-8666, 8:30 a.m.-5 p.m., Monday through Friday. If you are out of the Denver-Boulder local calling zone, please dial 1-800-332-5839. We will be glad to send you a free, detailed brochure, which is issued three times a year.

Real Estate License Preparation Course in Boulder

RE-5 Practice and Law (48 hours)

Designed to meet the educational requirements for the Colorado real estate sales examination, the course offers a comprehensive survey of the real estate field for those who intend to enter the profession as well as others who desire a basic knowledge of real estate markets, real property interests, deeds, land descriptions, property transfers, contracts, finance, and appraisal. Course begins with an examination of fundamental concepts and vocabulary, including Colorado license law and the law of agency. Students will practice extensively with the standard contract forms used for real estate listing agreements, sales, extension agreements, and counteroffers.

Daytime class: 6 sessions. Thursday, Friday, Monday, Tuesday, Thursday, Friday, January 9, 10, 13, 14, 16, 17, 8:30 a.m. to 5:30 p.m. Location: University of Colorado Business School Building, Room 215. Instructor: Gino Landini, Metro Brokers, Lakewood. \$225.

Evening Class: 16 sessions. Tues., Thurs., January 28 to March 20. 6:30 p.m. to 9:30 p.m. Location: University of Colorado Engineering Building, Southwest Classroom Wing, CR 1-46, Boulder. Instructor: Fred Kroll, Denver. Tuition: \$225.

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January 13 — February 21

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For other course information:

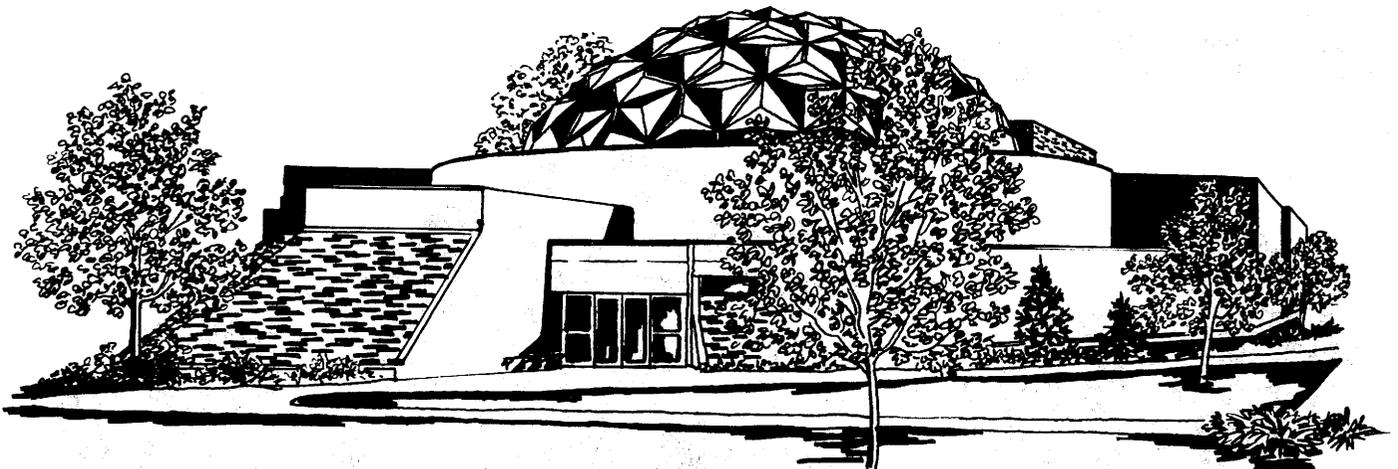
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Independent Study Programs

Independent Study Programs at the University of Colorado provide special opportunities for learning without interrupting family or career activities. Guided study allows you to work at your own pace, wherever you are. Courses are available to help you pursue your learning goals for college credit, professional certification, high school credit or enrichment.

College Credit Opportunities

Guided Correspondence Study

Independent study through correspondence allows you to begin courses at any time, not tied to the academic calendar. You work directly with an instructor by mail and by telephone. Written assignments are returned to you with grades and comments. Some courses make use of multimedia materials. Many of the courses include self-checking test questions with each unit so that you judge your own progress. Courses may be taken pass/fail or for no credit.

More than 70 college credit courses, approved by the University, are offered in 17 academic areas:

accounting	anthropology	arts and sciences
business	economics	education
engineering	English	fine arts
geology	history	mathematics
philosophy	physical education	political science
psychology	sociology	

Individualized Instruction

Individualized instruction provides an opportunity to earn college credit for course work by meeting with a faculty member in a nonclassroom setting. It may be used when you cannot enroll in the course on campus. You may not earn credit for work completed before registering. Registration requires the approval of the faculty member, the department or school and the appropriate dean.

Professional Certification Opportunities

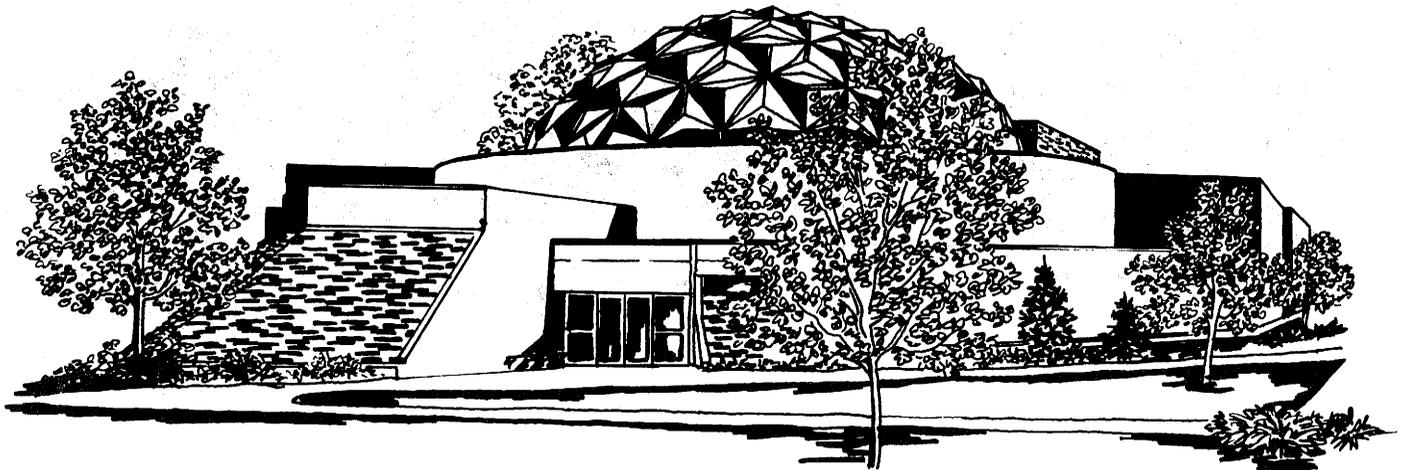
Noncredit courses are offered so that you can meet Colorado Real Estate licensing requirements or earn certificates in Childhood Education. Noncredit courses are also offered for those who want to develop or improve skills in the paralegal field. All courses carry Continuing Education Units (CEUs). All course work is by correspondence, graded and commented upon by faculty members who have both academic and professional qualifications.

Real Estate Education

In cooperation with the Colorado Real Estate Commission and the Colorado Association of Real Estate Boards, CU provides independent study courses to meet licensing requirements for real estate salespeople and brokers.

Childhood Education

Courses meet the standards established by Colorado law for Preschool Teachers and Preschool Administrators. Certificates are awarded to those who complete a specified series of courses. Courses are open to all who are interested in the growth, development, and education of young children. These courses are especially helpful to childcare center personnel, nurses, social workers, daycare home workers and parents of young children.



Paralegal Education

Paralegal Education courses provide opportunities for career-minded people to enter or advance in the paralegal profession; legal secretaries may use these courses to improve skills and become more valuable to their employers. Paralegals are employed in private law firms, but more and more paralegals are finding employment in private enterprise and in state and federal government offices.

No states have established certification for paralegals; however, the courses carry Continuing Education Units (CEUs) which are recognized by attorneys as a measure of continuing education.

Each course includes a study guide, textbooks and audiotapes.



High School Credit Opportunities

The University of Colorado offers guided independent learning courses for high school students who want to enrich their high school programs.

High School Correspondence Study

These correspondence courses provide special opportunities for students to meet college entrance requirements, to accelerate graduation, or to meet high school graduation requirements.

High school credit is granted by the student's high school, not by the University of Colorado.

It works like this: using printed study guides, texts, kits and audio materials, you and your supervisor (usually a counselor) stay in touch with faculty who work for the Independent Study Programs at CU by mail and by telephone. Graded assignments are returned to you with comments so you can see how you are progressing. Start the course anytime. Work at your own pace.

Ask your guidance counselor or advisor about high school independent learning courses.

Concurrent Registration in College Credit Courses

Qualified high school seniors can get a head start at CU through concurrent registration in college credit courses by correspondence.

If approved by your school, courses can be used for high school graduation or accepted for college credit (special student) at the University of Colorado.

FOR A COURSE CATALOG CALL OR WRITE:

**INDEPENDENT STUDY PROGRAMS
DIVISION OF CONTINUING EDUCATION
UNIVERSITY OF COLORADO
CAMPUS BOX 178
BOULDER, COLORADO 80309-0178
303-492-8756
1-800-332-5839 (TOLL FREE IN COLORADO)**

Applied Music Program

You need not be a regular campus student to take advantage of the wealth of talented music instruction at the University's College of Music.

In conjunction with the Division of Continuing Education, the College of Music offers a comprehensive program of private instruction at all skill levels in the following instruments:

Banjo, Bassoon, Clarinet, Fiddle, Flute, French Horn, Guitar, Harp, Mandolin, Oboe, Organ, Percussion, Piano, Sax, String Bass, Trombone, Tuba, Viola, Violin, Violoncello and Voice.

Two hours credit is optional. Practice facilities are available. Enrollees must supply their own instruments with the exception of piano and organ. Lesson times are arranged with the teachers who are graduate students in the College of Music. For further information, call 492-5148 or 492-6352.

Avoid the Registration Crunch
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492-5148.**

Center For Advanced Training In Engineering And Computer Science (CATECS)

**Off-Campus Graduate Education;
Master's Degree Programs**

**College of Engineering, Campus Box 435
(303) 492-6331**

Spring 1986 Courses

Business

- BAd 501 Fundamentals of Accounting
- BAd 503 Fundamentals of Marketing

Engineering

Aerospace

- Aero 556 Spacecraft Design
- Aero 696 Management of Research and Development

Civil

- CE 547 Hazardous and Industrial Waste Management
- CE 587 Applied Rock Mechanics
- CE 595 Daylighting

Computer Science

- CS 546 Theory of Automata
- CS 581 Database Systems
- CS 612 Topics in Operating Systems

Electrical and Computer Engineering

- ECE 538 Data Communications
- ECE 546 Network Synthesis I
- ECE 555 Parallel Processing
- ECE 591 Fault Tolerant Computing Systems
- ECE 569 Fourier Optics and Optical Computing
- ECE 586 Simulation Tools for VLSI Systems
- ECE 572 Energy System Analysis II
- ECE 574 Synchronous Machines
- ECE 577 Power System Protection

Mechanical

- ME 514 Statistical Thermodynamics
- ME 522 Methods of Engineering Analysis II
- ME 585 Theory of Elasticity

Short Courses

- Technical and Business Writing: A Basic Tool
- C Programming and UNIX Interface
- Advanced Modeling of Switching Converters
- Surface Excavations in Rock

CATECS, located in the College of Engineering and Applied Science on the Boulder campus, delivers graduate education and professional development directly to the workplace by live instructional television (ITV) with two-way audio. Videocassettes are also available.

Students may obtain a master of engineering degree in computer science, electrical and computer engineering, and in civil and mechanical engineering without having to leave their worksite. Graduate-level business courses, offered by CATECS to those with technical, non-business backgrounds, may be applied to the MBA degree as well as to the Master of Engineering. Short courses in engineering and computer programming are available also.

Students with a bachelor's degree and appropriate technical background may enroll in graduate courses offered by

CATECS. Those who are considering a master's degree should apply to the graduate school for admission before taking their third CU graduate course. All CATECS courses are accepted for the graduate degree. Up to eight semester credit hours of course work (twelve by petition) may be transferred from other institutions.

Beginning Fall 1986 a new master of engineering management degree will be offered. The 30 credit hour program will include business courses in finance, managerial accounting, organization leadership, strategic planning and marketing for high tech. The engineering segment will emphasize project and program management, management of research and development, personnel, law, planning, production, economic analysis, and technological updating. Case studies using specialists from business and industry as leaders will be featured also.

Greenwood Plaza Campus

Entering its third year, CATECS is responding to the ever-increasing need to provide high quality continuing education programs to the technical professional by expanding to a new education site at Greenwood Plaza near the Denver Tech Center. The same spring semester courses originating from the College of Engineering at Boulder will be delivered on ITV to the CU Campus at Greenwood.

Registration Information

Most CATECS students are sponsored by their employers. Students should contact the education officer of their employer or the CATECS office, College of Engineering, University of Colorado, Campus Box 435, Boulder, CO 80309, (303) 492-6331 for specific registration details.

Tuition is \$750 per 3-credit hour course. Non-resident costs are \$750 for one 3-credit hour course and \$1758 for two 3-credit hour courses per semester.

Special off-campus students not enrolled in graduate school but interested in CATECS courses must register through CATECS. CATECS students not sponsored by their employers may petition CATECS for a 50% discount. *Faculty and staff* at the University of Colorado may enroll for CATECS courses for one-half the \$750 tuition, as in the Boulder Evening Credit Course program, if seating remains in the classroom. Registration for CATECS courses for the Special Student, Faculty and Staff will be accepted at the CATECS office in the Engineering Center, Room AD1-1.

Registration Dates

- | | |
|------------------|---|
| December, 1985 | Registration accepted |
| January 8, 1986 | Registration due date |
| February 7, 1986 | Late Registration deadline with instructor's approval. \$25 late fee. |

Withdrawal and Refund Policy

- | | |
|----------------------------|--|
| January 22, 1986 | Last day to withdraw from a course with full refund. \$25 withdrawal fee assessed. |
| January 23 -
January 28 | 90% tuition refund |
| January 29 -
February 4 | 70% tuition refund |
| February 5 -11 | 50% tuition refund |
| After February 11 | no tuition refund |

REGISTRATION INSTRUCTIONS FOR CREDIT, PEAC, AND CERTIFICATE COURSES

Registration begins Monday, December 30

Preregistration is Necessary and Can Be Accomplished:

In person: Monday through Thursday, 9 a.m.-6 p.m.; Friday, 9 a.m.-5 p.m., 1221 University Avenue, Boulder. Short-term metered parking nearby. Also, Thursday and Friday, January 23, 24, 9 a.m.-4 p.m., University Memorial Center Ballroom.

By mail: To enroll for courses, please fill out the appropriate forms (below for PEAC/Certificate — on page 67 for credit) completely, and send them to:
 Division of Continuing Education
 Campus Box 178
 University of Colorado
 Boulder, Colorado 80309-0178

You may register for up to three credit hours by mail. For additional hours, visit our office. No limit on PEAC or Certificate courses.

By phone: If you are enrolling for PEAC or Certificate courses, you may register by phone with payment made by MasterCard or VISA credit cards. Call 492-5148. Longmont or outside Denver Metro area, call 1-800-332-5839. From Monday, January 13 through Friday, February 21, there are extra telephone lines available to facilitate PEAC and Certificate phone-in registration. These numbers are 443-7968, 443-8979, and 443-9973. Before January 13 and after February 21, please use the above listed numbers.

Please: Most courses have limited enrollment, so register as soon as possible to insure your place in class. Courses may be closed or cancelled, depending upon enrollment. Please register at least five days before the starting date of any PEAC/Certificate course. Preregistration is mandatory for all courses and programs.

Please call 492-5148 with any questions on your registration procedure. From Longmont or outside Denver Metro area, call 1-(800)-332-5839.

Disabled individuals who would like to register, please call our registration staff at 492-5148 and we will make special arrangements to assist you.

All listed textbooks and supplies are available at the University Book Center, UMC basement, on campus.

Refund information is listed with the specific program information. In all cases, if a course is cancelled or rescheduled at an inconvenient time, a full refund is given. Credit course cash and credit card tuition refunds are processed within two weeks of completing a Drop Voucher in the Division Registration Office, 1221 University Avenue. PEAC/Certificate course drops may be phoned in. If payment was made by check, the refund will take 4-6 weeks. That time can be cut considerably by presenting a copy of both front and back of your cancelled check when dropping.

Weather-related closing policy: Students may expect classes to be held when scheduled even in inclement weather, the only exception being when the Chancellor closes the campus because of extreme weather conditions. Local radio stations will announce the campus closing frequently during the day. Call 492-5500 for campus closing information.

The University of Colorado is an affirmative action/equal opportunity institution. The Continuing Education facility is accessible to the handicapped.

An income tax deduction is allowed for educational expenses (including tuition, travel, meals, and lodging) undertaken to maintain and improve professional skills (see Treasury Regulation 1.162-5 or Coughlin v. Commissioner 207F 2d 307). In all cases, consult your tax advisor.

Registration for Certificate and PEAC Courses

Mr. _____
 Ms. _____
Last First

Mailing Address _____ Home Telephone _____

City _____ State _____ Zip _____

Business Name _____

Business Address _____ Office Telephone _____

City _____ State _____ Zip _____

Social Security Number _____

Course No.	Course Title and (if applicable) Section Number	Tuition

Attach additional sheet if needed Total Enclosed _____

Tuition Payment by Mail

Please send a check, payable to University of Colorado, to:
 Division of Continuing Education
 Campus Box 178
 University of Colorado
 Boulder, CO 80309-0178
 If using MasterCard or VISA, enclose the following information:

Charge VISA
 _____ / _____ / _____ / _____

Expiration Date _____ / _____

 Cardholder's name, as it appears on the charge card. Please print.

Charge MasterCard
 _____ / _____ / _____ / _____

Expiration Date _____ / _____

 Cardholder's name, as it appears on the charge card. Please print.

Note that credit card enrollments can be made by phone (see Registration Information).

Registration Information

**UNIVERSITY OF COLORADO
DIVISION OF CONTINUING EDUCATION**

PROGRAM

**REGISTRATION
DATE**

Last Name	First Name	Middle Name	Maiden Name	Suffix
-----------	------------	-------------	-------------	--------

If changed, give name under which you were last registered _____

Mailing address _____
 No. and Street _____ City _____ State _____ Zip Code _____

Home Phone _____	SEX: <input type="checkbox"/> Male <input type="checkbox"/> Female	RACE: <input type="checkbox"/> American Indian or Alaskan Native <input type="checkbox"/> Asian or Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Caucasian/White <input type="checkbox"/> Hispanic <input type="checkbox"/> I do not wish to provide this information	RESIDENCY: <input type="checkbox"/> Colorado <input type="checkbox"/> Other State Abbr. _____	MARITAL STATUS: <input type="checkbox"/> Single <input type="checkbox"/> Married
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CITIZENSHIP:
 C = U.S. Citizen
 P = Non-U.S. Citizen/permanent status—List alien registr. No. _____
 T = Non-U.S. Citizen—List Type of Temporary Visa _____

MILITARY SERVICE:
 Non-veteran Veteran
 Active Duty Veteran Eligible for VA benefits

SOCIAL SECURITY NUMBER:

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for record-keeping and identification of students only

FORMER STUDENT NUMBER:

--

BIRTHDATE

Month	Day	Year

Dept. Abbr.	Course No.	Cr. Hrs.	Sect. No.	Title(s) of course(s) for which you are enrolling	Location

ALL APPLICANTS

- Do you have a high school diploma or a G.E.D. Certificate? No (Submit HS Concurrent Form) Yes
 High School Name/City/State _____ Graduation Date _____
- Have you ever enrolled for credit course(s) at any campus of the University of Colorado?
 No Yes Campus _____ Term _____ Year _____ of most recent attendance as a Degree Student or Special Student
- Are you currently on suspension from any Campus/School of CU? No Yes School _____
- Do you owe a debt to any University of Colorado campus? No Yes
- Do you have a college degree? No Yes Highest Degree _____ Date Awarded _____
 College Name/City/State _____
- Have you ever been convicted of a felony? (other than traffic violation) No Yes (Attach statement)
- Do you have any serious health conditions/limitations which should be brought to the attention of the University? No Yes (Attach statement)

DO NOT WRITE IN THIS COLUMN

Sex	Race
Citz	TRC 1
Birth Date Mo/Day/Yr	
Hours	
School	Major
Class	Grad Stat
Res	Res State
Adm Stat	Adm Type
Mar	GPA
Stops	
Fin Stop	Vet
Prev Term/Yr /Campus	
SAVE	

COMPLETE THIS SECTION IF YOU HAVE NOT ATTENDED ANY UNIVERSITY OF COLORADO CAMPUS WITHIN THE LAST 12 MONTHS AND ARE CLAIMING IN-STATE TUITION CLASSIFICATION

Students already classified as nonresidents must submit a separate "Petition for In-State Tuition" in order to change their tuition classification.

FAILURE TO ANSWER EACH QUESTION MAY RESULT IN YOUR BEING CLASSIFIED AS A NONRESIDENT

	You	Your Parent/Guardian (if you are under 22)
Dates of continuous physical presence in Colorado (mo/yr)	____/____ to ____/____	____/____ to ____/____
Dates of employment in Colorado (mo/yr)	____/____ to ____/____	____/____ to ____/____
List exact years Colorado income taxes have been filed	_____	_____
Dates of extended absences from Colorado of more than two months (mo/yr)	____/____ to ____/____	____/____ to ____/____
Date of marriage, if applicable (mo/yr)	____/____	____/____
Date current Colorado Driver's License was issued (mo/yr)	____/____	____/____
Have you had a previous Colorado Driver's License?	Yes _____ No _____	Yes _____ No _____
List exact years of Colorado Motor Vehicle Registration (mo/yr)	_____	_____
Date of Colorado Voter Registration (mo/yr)	____/____	____/____
Date of purchase of any Colorado residential property (mo/yr)	____/____	____/____
Dates of military service, if applicable, (mo/yr)	____/____ to ____/____	____/____ to ____/____

I hereby certify that to the best of my knowledge the information furnished on this application is true and complete without evasion or misrepresentation. I understand that if found to be otherwise it is sufficient cause for dismissal.

Student's Signature: _____

THE UNIVERSITY OF COLORADO IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EDUCATIONAL INSTITUTION. Admission to the University of Colorado as a Special Student does not guarantee eligibility for regular degree status.

University of Colorado, Boulder
Division of Continuing Education
1221 University Avenue
Boulder, Colorado 80309-0178



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Permit No. 257

Or Current Resident

