THE JOURNEY BEGINS.

We've packed a lot of opportunity between two covers this Fall, with over 50 new courses geared to the broad interests and serious commitment of our student group. We're very excited about our association with the Smithsonian Lecture Program offered this semester (see Noncredit), and the tuneup we've made to some of our strongest programs. Look inside for details on the new Management Development Certificate Program, the new Business and Technology Leadership Program, the Novell Institute and the Commercial Design Program. These changes reflect our commitment to leading-edge learning attuned to your needs now.

FOUR WAYS TO REGISTER

1. Register by mail. A postage-paid envelope is located in this catalog. Registration forms are on page 53 for noncredit and certificate, page 55 for credit.

2. Fax your registration. Fast and easy. Day or night to (303) 492-3962. Send both front and back of page 53 for noncredit and certificate courses. Send both front and back of page 55 for credit courses.

3. In person. Come to the Continuing Education Office, 1221 University Avenue, between 9 a.m. and 6 p.m. Monday through Thursday (9 a.m. to 5 p.m. Fridays).

4. Register by phone, using Visa or MasterCard. Note: this applies only to noncredit and certificate courses. Complete the registration form (page 53) and have your credit card information handy. Then call 492-8668 or 1-800-331-2801. After October 4 call 492-5148.

Costs vary. Tuition is listed at the end of each course description. You may pay by MasterCard, Visa, cash or check.

Where Are Courses Given? Course locations are given at the end of each course description. Many campus parking lots offer $1.00 parking after 5 p.m. and on Saturdays. Some are free evenings and weekends. The Campus Map gives both building and parking lot locations. To skip parking altogether, take the RTD bus to campus.

Credit Programs You can earn academic credit at every level, high school through graduate school. Credit programs include:

Boulder Evening Credit Classes
For university courses with convenient evening hours.

Independent Study Programs
Independent study by correspondence and individualized instruction lets you learn at home.

Center for Advanced Training in Engineering and Computer Science (CATECS)
Earn a Masters degree or graduate credit with courses televised live to your workplace.

Professional Enhancement: Certificate Programs To polish skills or acquire new ones, enhance a career or explore another field, Continuing Education offers a full spectrum of programs.

Or earn a Certificate in: Business and Technology Leadership Computer Applications and Computer Graphics Management Development Commercial Design

Learning For Learning's Sake: Noncredit Courses The broad range of noncredit courses, offered at convenient evening and weekend hours, means no tests, no grades, and no prerequisites. Yet noncredit courses, encompassing both personal and professional interests, are taught by highly qualified instructors. Enjoy non-competitive learning with others who share your interests.

Professional Development Programs for working professionals, to build skills and enhance your understanding of business today:

Real Estate Education Program Special Professional Programs Video Teleconferencing

Change Your Mind? Please let us know. If you withdraw before a course begins, you may receive a full refund. Refer to each program description for refund policies after a course starts.

Severe Weather Classes are held when scheduled. The Chancellor closes the campus only because of extreme weather conditions. Closings are announced on local radio stations. Or call 492-5500 for campus closing information.

Other Questions? Problems? Special Needs? Disabled individuals should feel free to call our registration staff for special needs and arrangements. We will gladly assist you.

Books and supplies required for all courses are available at the University Book Center in the basement of the University Memorial Center on campus. Call us at 492-5148 or 1-800-331-2801 if you need help or additional information. You can reach us between 9 a.m. and 6 p.m. Monday through Thursday or until 5 p.m. on Friday.
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Conserving Precious Natural Resources.
We are committed to the responsible use of natural resources. The cover of this catalog is printed on recycled paper and the pages inside are an uncoated paper designed to permit recycling. Please help us by taking only as many copies as you need. Share your catalog with friends. And recycle all appropriate printed materials. Thank you.
IDEAS AT WORK: THE MIND AT PLAY.
EVENING CREDIT CLASSES.

Some of the university's most sought-after courses are offered after 5 p.m., taught by top-notch instructors to a diverse group of people who share a keen interest in personal development and professional advancement.

Credits earned can be applied to the degree of your choice. Each school or college admits a certain number of evening credit hours — usually 12 — before you must apply for admission as a degree student. If you are thinking of applying to CU, you should consult a current catalog for admission requirements and make an appointment with a CU admissions advisor.

Eligibility: All you need is a high school diploma or GED. (Individuals on University of Colorado financial stops or academic suspension from the College of Engineering and Applied Science, the College of Environmental Design or the College of Business may not enroll.)

Residency: Whether you are a resident or non-resident, you may take up to 3 semester hours per term or session for $70 per credit hour. Residency makes a difference only if you are registering for 4 or more credit hours. If you have lived in Colorado for the past 12 months, you may be eligible for in-state tuition rates although you may be asked for documentation.

Under 21? If you're not 22 years old by the first day of classes, you are assumed to have the same legal residence as your parents. If your parents live out of state, you may petition the University of Colorado for resident status as an emancipated minor. If you believe your initial classification is incorrect, talk to the Classification Coordinator at 492-5148.

Tuition: Resident tuition is $70 per credit hour. Some courses requiring special equipment or materials may be slightly higher. If you're not a Colorado resident and want to register for 4 or more credit hours, you'll be charged non-resident tuition. Please see Survival Tip on page 5 for more information.

Privileges: As a Boulder Evening Credit student, you have access to the following services.
- Total library services at no additional charge
- Membership in the Recreation Center ($70 a semester)
- Wardenburg Student Health Services ($49.50)
- Photo IDs ($7 cash, checks with guarantee card, Visa, MasterCard)

To sign up for these and other student benefits, simply take your registration receipt to the appropriate office.

Counseling Services: Free academic counseling is available to help you plan a degree program, decide on a major, or simply explore your options. Feel free to call 492-5145 for an appointment.

Financial Aid: Degree students may qualify for all financial aid programs if eligible. Nondegree students taking courses for credit may qualify for a Stafford Loan (formerly GSL) if eligible. Applications are available in the Office of Financial Aid, Environmental Design Room 2 (492-5091). The Colorado Commission on Higher Education also provides some tuition assistance to eligible students and these applications are also available from the Office of Financial Aid.

Veteran Benefits: As an eligible veteran or veteran dependent, you may enroll in evening classes and apply credit toward a degree. If you have questions about your eligibility and benefits, contact the Veterans Affairs Office, Room 165, University Memorial Center, or call 492-7322.

To Enroll: Advance registration is necessary, by mail or in person at the Division of Continuing Education, 1221 University Avenue. See the instructions on the inside front cover of this catalog.

To Drop: To drop a credit course and ensure that you receive any tuition refund that may be due, come to the Division of Continuing Education, 1221 University Avenue and complete a drop voucher. If you don't officially withdraw from a course, you may receive a grade of "F" for that class.

Pass/Fail Option: This option is not available for Boulder Evening Credit Courses.

Special Faculty-Staff Registration: Faculty and staff of the University of Colorado at Boulder may enroll in Boulder Evening Credit Courses at half the regular tuition on a space available basis. Please bring a current copy of your PAF (showing at least half-time employment) to registration beginning September 3.

Nancy Hewitt is a professional mediator who does conflict management work and teaches Criminology for Continuing Ed. A role model for nontraditional students, she went back to school at age 40 and ended up earning her Ph.D. Along the way she received a grant to investigate why numbers of Engineering, Math and Science students switch to other fields of study. Here she interviews two students. Perhaps the best lesson this criminologist can teach you is this—if you have a dream, it's a crime not to pursue it.
CREDIT CLASSES CALENDAR — DATES YOU SHOULD KNOW

August 5 .......................... First day of registration at the Division of Continuing Education, 1221 University Avenue, 9-6 Monday through Thursday, 9-5 Friday.
September 2 ...................... Labor Day Holiday. NO CLASSES.
September 3 ...................... 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 space available basis. 50% discount. Active PAF employment verification copy required.
September 10 .................... LAST DAY TO REGISTER FOR SESSION I CLASSES. Withdrawals from Session I classes after this date will appear as a "W" on student's academic record.
September 11 .................... Instructor's signature required to drop Session I classes.*
September 17 .................... LAST DAY TO REGISTER FOR FULL TERM CLASSES. Withdrawals from Full Term classes after this date will appear as a "W" on student's academic record. Registration continues for Session II.
September 18 .................... Instructor's signature required to drop Full Term classes.* Petition required to drop Session I classes.
October 2 .......................... Petition required to drop Full Term classes.
October 17 ....................... SESSION I TUESDAY AND THURSDAY CLASSES END.
October 21 ....................... SESSION I MONDAY AND WEDNESDAY CLASSES END.
October 28 ....................... Session II classes begin. FACULTY/STAFF registration for Boulder Evening classes on a space available basis. 50% discount. Active PAF employment verification copy required.
November 1 ..................... LAST DAY TO REGISTER FOR SESSION II CLASSES. Withdrawals from Session II classes after this date will appear as a "W" on student's academic record.
November 11 ................... Instructor's signature required to drop Session II classes.*
November 18 ................... Petition required to drop Session II classes.
November 28-29 ................ Thanksgiving Holiday. NO CLASSES.
December 3 ...................... FULL TERM TUESDAY CLASSES END.
December 4 ...................... FULL TERM WEDNESDAY CLASSES END.
December 9 ...................... FULL TERM MONDAY CLASSES END.
December 10 .................... FULL TERM TUESDAY AND THURSDAY CLASSES END.
December 11 .................... FULL TERM MONDAY, WEDNESDAY, AND FRIDAY CLASS ENDS. SESSION II MONDAY AND WEDNESDAY CLASSES END.
December 12 .................... FULL TERM MONDAY AND THURSDAY CLASSES END. FULL TERM THURSDAY CLASSES END.
December 17 .................... SESSION II TUESDAY AND THURSDAY CLASSES END.

*This signature indicates you were doing passing work when you dropped the course.
FULL TERM CLASSES BY STARTING DATE, FALL 1991

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Course No. &amp; Hours</th>
<th>Section</th>
<th>Time</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Monday Courses, Begin September 9 and End December 9</strong></td>
</tr>
<tr>
<td>AMST</td>
<td>2000-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Themes in American Culture: 1600-1900</td>
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<tr>
<td>APAS</td>
<td>1110-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>General Astronomy: The Solar System</td>
</tr>
<tr>
<td>ARAB</td>
<td>2110-3</td>
<td>300</td>
<td>2-5 p.m.</td>
<td>Intermediate Arabic 1</td>
</tr>
<tr>
<td>COMM</td>
<td>2000-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Perspectives on Human Communication</td>
</tr>
<tr>
<td>COMM</td>
<td>4510-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Senior Seminar: Interpersonal Communication</td>
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<tr>
<td>ENGL</td>
<td>1500-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Masterpieces of British Literature</td>
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<tr>
<td>HIST</td>
<td>2117-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>History of Colorado</td>
</tr>
<tr>
<td>MATH</td>
<td>1071-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Finite Mathematics for Social Science and Business</td>
</tr>
<tr>
<td>PHIL</td>
<td>1100-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>Ethics</td>
</tr>
<tr>
<td>PSYC</td>
<td>4406-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>SOCY</td>
<td>1016-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Sex, Gender and Society 1</td>
</tr>
<tr>
<td>THTR</td>
<td>1003-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Introduction to Acting for Non-Majors</td>
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<td></td>
<td><strong>Monday and Wednesday Courses, Begin September 4 and End December 9</strong></td>
</tr>
<tr>
<td>ARAB</td>
<td>1010-5</td>
<td>300</td>
<td>5-7:30 p.m.</td>
<td>Beginning Arabic 1</td>
</tr>
<tr>
<td>FINE</td>
<td>1012-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>Basic Drawing</td>
</tr>
<tr>
<td>HEBR</td>
<td>2110-3</td>
<td>300</td>
<td>1-3 p.m.</td>
<td>Intermediate Hebrew 1</td>
</tr>
<tr>
<td>JOUR</td>
<td>3102-3</td>
<td>300</td>
<td>7-8:30 p.m.</td>
<td>Press Photography</td>
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<tr>
<td>MATH</td>
<td>1011-3</td>
<td>300</td>
<td>7-8:30 p.m.</td>
<td>Fundamentals and Techniques of College Algebra</td>
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<td></td>
<td><strong>Monday and Wednesday and Friday Course, Begins September 4 and Ends December 11</strong></td>
</tr>
<tr>
<td>HEBR</td>
<td>1020-5</td>
<td>300</td>
<td>11 a.m.-1 p.m.</td>
<td>Beginning Hebrew 2</td>
</tr>
<tr>
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<td><strong>Monday and Thursday Courses, Begin September 5 and End December 12</strong></td>
</tr>
<tr>
<td>CSCI</td>
<td>1200-3</td>
<td>300</td>
<td>6-8:45 p.m.</td>
<td>Introduction to Programming 1</td>
</tr>
<tr>
<td>MATH</td>
<td>1300-5</td>
<td>300</td>
<td>6:30-8 p.m.</td>
<td>Analytic Geometry and Calculus 1</td>
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<tr>
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<td><strong>Tuesday Courses, Begin September 3 and End December 3</strong></td>
</tr>
<tr>
<td>ANTH</td>
<td>2010-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>Introduction to Physical Anthropology 1</td>
</tr>
<tr>
<td>COMM</td>
<td>1010-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Public Speaking</td>
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<tr>
<td>ECON</td>
<td>2010-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>EDUC</td>
<td>4800-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Special Topics: Building Family Strengths</td>
</tr>
<tr>
<td>EDUC</td>
<td>4820-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Workshop in Curricular and Instructional Development:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The Art of Creative Teaching (ACT)</td>
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<tr>
<td>ENGL</td>
<td>1191-3</td>
<td>301</td>
<td>7-10 p.m.</td>
<td>Introduction to Creative Writing</td>
</tr>
<tr>
<td>HIST</td>
<td>1113-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>The History of England to 1660</td>
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<tr>
<td>HIST</td>
<td>4433-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Nazi Germany</td>
</tr>
<tr>
<td>JOUR</td>
<td>2001-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Mass Media Writing</td>
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<tr>
<td>MATH</td>
<td>1021-2</td>
<td>300</td>
<td>5:30-7:30 p.m.</td>
<td>Numerical and Analytical College Trigonometry</td>
</tr>
<tr>
<td>PSYC</td>
<td>2012-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>Biological Psychology 1</td>
</tr>
<tr>
<td>PSYC</td>
<td>4303-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>SOCY</td>
<td>1001-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Analyzing Society: An Introduction to Sociological Ideas</td>
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<td></td>
<td></td>
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<td><strong>Tuesday and Thursday Courses, Begin September 3 and End December 10</strong></td>
</tr>
<tr>
<td>CDSS</td>
<td>2324-3</td>
<td>300</td>
<td>5-6:30 p.m.</td>
<td>American Sign Language 3</td>
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<td>FINE</td>
<td>2002-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>Drawing</td>
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<tr>
<td>MATH</td>
<td>0990-3</td>
<td>300</td>
<td>5:30-7 p.m.</td>
<td>Pre-College Mathematics</td>
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<tr>
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<td><strong>Wednesday Courses, Begin September 4 and End December 4</strong></td>
</tr>
<tr>
<td>COMM</td>
<td>2240-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Organizational Communication</td>
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<tr>
<td>EDUC</td>
<td>3303-2</td>
<td>300</td>
<td>6-8 p.m.</td>
<td>Oral Communication for Teachers</td>
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<tr>
<td>EDUC</td>
<td>4820-3</td>
<td>301</td>
<td>6-9 p.m.</td>
<td>Workshop in Curricular and Instructional Development:</td>
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<td>Integrative Learning</td>
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<tr>
<td>ENGL</td>
<td>1260-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Introduction to Women's Literature</td>
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<tr>
<td>ENGL</td>
<td>1600-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Masterpieces of American Literature</td>
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<tr>
<td>GEOG</td>
<td>1130-5</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>Dynamic Earth I — Introduction</td>
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<tr>
<td>HIST</td>
<td>1015-3</td>
<td>300</td>
<td>7-10 p.m.</td>
<td>History of the United States to 1865</td>
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<tr>
<td>HIST</td>
<td>4613-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>History of East-Central Europe to 1815</td>
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<tr>
<td>JOUR</td>
<td>1001-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>Contemporary Mass Media</td>
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<tr>
<td>PSYC</td>
<td>1101-3</td>
<td>300</td>
<td>6-9 p.m.</td>
<td>The American Political System</td>
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<tr>
<td>PSPV</td>
<td>1001-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>General Psychology</td>
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<tr>
<td>SOCY</td>
<td>1005-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Social Conflict and Social Values</td>
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<tr>
<td>SOCY</td>
<td>4014-3</td>
<td>300</td>
<td>6:30-9:30 p.m.</td>
<td>Criminology</td>
</tr>
</tbody>
</table>

SURVIVAL TIPS

Tuition charges for credit courses offered by the Division of Continuing Education are determined by program and by the residency status of the student.

Residents of Colorado are assessed tuition based on the price per semester hour and the number of semester hours for which they register. Tuition is based on the cost cited in the most recent program publication.

Non-Residents of Colorado are assessed tuition based on the price per semester hour and the number of semester hours for which they register. Non-residents may register for up to three (3) semester hours at the resident tuition rate cited in the most recent program publication. Non-residents registering for four (4) or more semester hours of credit courses offered by the Division of Continuing Education, regardless of program, are assessed non-resident tuition for all courses at the rate established by the Board of Regents for that term or session.

Important Exception: Tuition for
INDEPENDENT STUDY VIA CORRESPONDENCE is assessed at the rate cited in the catalog of The Colorado Consortium for Independent Study in effect at the time of registration. This assessment is not affected by considerations of residency. The Board of Regents reserves the right to change tuition without prior notice.

All tuition and refund determinations are subject to audit.
### Session I Classes by Starting Date

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Course No. &amp; Hours</th>
<th>Section</th>
<th>Time</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH</td>
<td>1030-3</td>
<td>100</td>
<td>7-10 p.m.</td>
<td>Principles of Anthropology 1</td>
</tr>
<tr>
<td>EDUC</td>
<td>4800-3</td>
<td>102</td>
<td>5-8 p.m.</td>
<td>Special Topics: Stress Management and Relaxation Training (S.M.A.R.T.)</td>
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<tr>
<td>ENGL</td>
<td>1191-3</td>
<td>100</td>
<td>6:30-9:30 p.m.</td>
<td>Introduction to Creative Writing</td>
</tr>
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<td>FILM</td>
<td>3563-3</td>
<td>101</td>
<td>7-10 p.m.</td>
<td>Producing the Feature Film</td>
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<tr>
<td>GEOG</td>
<td>1992-3</td>
<td>100</td>
<td>7-10 p.m.</td>
<td>Introduction to Human Geography</td>
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<tr>
<td>KINE</td>
<td>3420-3</td>
<td>100</td>
<td>7-10 p.m.</td>
<td>Nutrition and Health</td>
</tr>
<tr>
<td>SOCY</td>
<td>1001-3</td>
<td>100</td>
<td>6:30-9:30 p.m.</td>
<td>Analyzing Society: An Introduction to Sociological Ideas</td>
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</table>

### Session II Classes by Starting Date

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Course No. &amp; Hours</th>
<th>Section</th>
<th>Time</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH</td>
<td>1040-3</td>
<td>200</td>
<td>7-10 p.m.</td>
<td>Principles of Anthropology 2</td>
</tr>
<tr>
<td>EDUC</td>
<td>4800-3</td>
<td>202</td>
<td>5-8 p.m.</td>
<td>Special Topics: Expanding Awareness</td>
</tr>
<tr>
<td>ENGL</td>
<td>1191-3</td>
<td>200</td>
<td>6:30-9:30 p.m.</td>
<td>Introduction to Creative Writing</td>
</tr>
<tr>
<td>FILM</td>
<td>3563-3</td>
<td>202</td>
<td>7-10 p.m.</td>
<td>Producing the Feature Film</td>
</tr>
<tr>
<td>GEOG</td>
<td>1982-3</td>
<td>200</td>
<td>7-10 p.m.</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>KINE</td>
<td>3430-3</td>
<td>200</td>
<td>7-10 p.m.</td>
<td>Nutrition and Physical Performance</td>
</tr>
<tr>
<td>PSYC</td>
<td>2303-3</td>
<td>200</td>
<td>6:30-9:30 p.m.</td>
<td>Psychology of Adjustment</td>
</tr>
<tr>
<td>SOCY</td>
<td>1004-3</td>
<td>200</td>
<td>6:30-9:30 p.m.</td>
<td>Deviance in U.S. Society</td>
</tr>
</tbody>
</table>

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**Survival Tips**

**Important Information for Arts and Sciences Students**

Students enrolling on the Boulder Campus for the first time in Fall 1991 and who have never attended college before should contact the Arts and Sciences Dean's Office for a list of General Education Requirements. Continuing and transfer students who graduated from high school before 1988 should consult the current college list for General Education Requirements.

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**SESSION I CLASSES BY STARTING DATE**

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Course No. &amp; Hours</th>
<th>Section</th>
<th>Time</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ANTH</td>
<td>1030-3</td>
<td>100</td>
<td>7-10 p.m.</td>
<td>Principles of Anthropology 1</td>
</tr>
<tr>
<td>EDUC</td>
<td>4800-3</td>
<td>102</td>
<td>5-8 p.m.</td>
<td>Special Topics: Stress Management and Relaxation Training (S.M.A.R.T.)</td>
</tr>
<tr>
<td>ENGL</td>
<td>1191-3</td>
<td>100</td>
<td>6:30-9:30 p.m.</td>
<td>Introduction to Creative Writing</td>
</tr>
<tr>
<td>FILM</td>
<td>3563-3</td>
<td>101</td>
<td>7-10 p.m.</td>
<td>Producing the Feature Film</td>
</tr>
<tr>
<td>GEOG</td>
<td>1992-3</td>
<td>100</td>
<td>7-10 p.m.</td>
<td>Introduction to Human Geography</td>
</tr>
<tr>
<td>KINE</td>
<td>3420-3</td>
<td>100</td>
<td>7-10 p.m.</td>
<td>Nutrition and Health</td>
</tr>
<tr>
<td>SOCY</td>
<td>1001-3</td>
<td>100</td>
<td>6:30-9:30 p.m.</td>
<td>Analyzing Society: An Introduction to Sociological Ideas</td>
</tr>
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**SESSION II CLASSES BY STARTING DATE**

<table>
<thead>
<tr>
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<tr>
<td>ANTH</td>
<td>1040-3</td>
<td>200</td>
<td>7-10 p.m.</td>
<td>Principles of Anthropology 2</td>
</tr>
<tr>
<td>EDUC</td>
<td>4800-3</td>
<td>202</td>
<td>5-8 p.m.</td>
<td>Special Topics: Expanding Awareness</td>
</tr>
<tr>
<td>ENGL</td>
<td>1191-3</td>
<td>200</td>
<td>6:30-9:30 p.m.</td>
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<td>200</td>
<td>6:30-9:30 p.m.</td>
<td>Deviance in U.S. Society</td>
</tr>
</tbody>
</table>

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**Not Attending Classes Does Not Mean You Have Withdrawn.**
American Studies
American Studies 2000-3
Themes in American Culture: 1600-1900
Enables students to explore various themes in pre-1900 American culture. Examines these themes, which vary each year, in their social context. Approved for Arts and Sciences Core Curriculum: United States Context.
Full Term - Section 300: Mondays, 6-9 p.m. Hellem 255. $210 (resident).

Anthropology
*Anthropology 1030-3
Principles of Anthropology 1
Evolution of humanity and culture from beginnings through early metal ages. Covers human evolution, race, prehistory, and the rise of early civilizations.
Session I - Section 100: Mondays and Wednesdays, 7-10 p.m. Hellem 137. $210 (resident).

*Anthropology 1040-3
Principles of Anthropology 2
Survey of the world's major culture areas; culture and its major components such as subsistence, social organization, religion, and language.
Session II - Section 200: Mondays and Wednesdays, 7-10 p.m. Hellem 137. $210 (resident).

*Anthropology 2010-3
Introduction to Physical Anthropology 1
Detailed consideration of human biology, human's place in the animal kingdom, and fossil evidence bearing on human evolution. Students may not receive credit for both ANTH 2010 and 2050. Approved for Arts and Sciences Core Curriculum: Natural Science.
Full Term - Section 300: Tuesdays, 7-10 p.m. Hellem 263. $210 (resident).

Arabic
Arabic 1010-5
Beginning Arabic 1
Full Term - Section 300: Mondays and Wednesdays, 5-7:30 p.m. Engineering Center CR 1-05. $500 (resident).

Arabic 2110-3
Intermediate Arabic 1
Advanced grammar and conversation.
Full Term - Section 300: Mondays, 2-5 p.m. Engineering Center CR 1-03. $300 (resident).

Astronomy
*APAS 1110-3
General Astronomy: The Solar System
Principles of modern astronomy for non-science majors; summarizing our present knowledge about the Earth, moon, planets, Sun, and the origin of life. APAS 1110 and 1120 may be taken in either order. Approved for Arts and Sciences Core Curriculum: Natural Science.
Full Term - Section 300: Mondays, 7-10 p.m. Engineering Center CR 2-28. $210 (resident).

Biology
*EPOB 1210-3
General Biology 1
Concentrated introduction to molecular, cellular, genetic, and evolutionary biology. Emphasizes fundamental principles, concepts, facts, and questions which receive more detailed consideration later in the core curriculum. Open to non-majors. Approved for Arts and Sciences Core Curriculum: Natural Science.
Full Term - Section 300: Thursdays, 6:30-9:30 p.m. Engineering Center CR 2-28. $210 (resident).

Communication
Communication 1010-3
Public Speaking
Covers the theory and skills of speaking in various public settings. Treats fundamental principles from rhetorical and communication theory and applies them to oral presentations.
Full Term - Section 300: Tuesdays, 6:30-9:30 p.m. Hellem 185. $210 (resident).
Session I - Section 100: Tuesdays and Thursdays, 6-9 p.m. Hellem 193. $210 (resident).
Session II - Section 200: Tuesdays and Thursdays, 6-9 p.m. Hellem 193. $210 (resident).

*Communication 2000-3
Perspectives on Human Communication
This course surveys communication in a variety of contexts and applications. Topics include basic concepts and general models of communication, ethics, language and nonverbal communication, and impact of technological developments on communication.
Full Term - Section 300: Mondays, 6:30-9:30 p.m. Ketchum 301. $210 (resident).

Flora Rhea is earning a degree in Elementary Education. This Continuing Education class fulfills needed credits.

SURVIVAL TIPS
*This course will partially satisfy Arts and Sciences College List requirements. Please see an advisor.
Communication - cont.

*Communication 2030-3
Interpersonal Communication
This course focuses on basic processes in face-to-face interaction, including verbal and nonverbal messages, coordination in conversation, messages about self and other, and communication in personal relationships. The emphasis is on theory and concepts rather than skills.
Full Term - Section 300: Thursdays, 6:30-9:30 p.m. Hallens 137. $210 (resident).

*Communication 2240-3
Organizational Communication
Provides a communicatively-based definition of formal organization and deals with individual-organization relationships by means of the concepts of identification and commitment. Motivation, authority, power, control, and ethics are treated from a rhetorical perspective.
Full Term - Section 300: Wednesdays, 6:30-9:30 p.m. Hallens 141. $210 (resident).

Communication 4510-3
Senior Seminar: Interpersonal Communication
Reviews current research and theory on topics such as strategic interaction, relationship formation and maintenance, and identity and self-presentation. Prerequisite: COMM 2030 helpful. Full Term - Section 300: Mondays, 6-9 p.m. McKenna 112. $210 (resident).

Entrepreneur Gloria Knudsen takes advantage of a Continuing Education course to earn a few more credits toward her degree.

Communication Disorders and Speech Science
CDSS 2324-3
American Sign Language 3
Continuation of ASL 2. Emphasizes expressive sign language, storytelling, and discussions on deaf culture communicated exclusively through sign language. Covers ASL idiomatic expressions, approximately 500 vocabulary words, and 20 grammatical structures. Prerequisites: CDSS 2304 and CDSS 2314, or equivalent.
Full Term - Section 300: Tuesdays and Thursdays, 5-6:30 p.m. CDSS 203. $210 (resident).

Computer Science
Computer Science 1200-3
Introduction to Programming I
An introductory course in computer programming covering the basic techniques for designing common algorithms to solve practical problems, the major characteristics of modern computers, the elements of structured programming, and the use of data structures. The course provides current methods for constructing, debugging, testing, and documenting computer programs. Programming projects use Pascal. Since this is a rigorous laboratory course, students should plan to spend at least 10 additional hours per week at the Engineering Center. Prerequisite: three years of high school mathematics, including trigonometry or MATH 1100 or 1020, or consent of instructor.
Full Term - Section 300: Mondays and Thursdays, 6-8:45 p.m. Engineering Center CR 0-36. $280 (resident).

Economics

*Economics 2010-3
Principles of Microeconomics
Study of decision making under uncertainty in the presence of scarcity by households, firms, and government units. Analyzes resource allocation, both competitive and noncompetitive, market structures, income distribution, and comparative economic systems. Approved for Arts and Sciences Core Curriculum: Contemporary Societies.
Full Term - Section 300: Tuesdays, 5:30-8:30 p.m. Engineering Center CR 2-26. $210 (resident).

*Economics 2020-3
Principles of Macroeconomics
Examines basic concepts of macroeconomics, behaviors of individuals, firms, and government. Topics include determining economic problems, how consumers and businesses make decisions, how markets work and how they fail, and how government actions affect markets. Approved for Arts and Sciences Core Curriculum: Contemporary Societies.
Full Term - Section 300: Thursdays, 5:30-8:30 p.m. Economics 119. $210 (resident).

Education

Education 3303-2
Oral Communication for Teachers
Designed for prospective teachers. Deals with applications of oral communication methods in education. Fulfills the School of Education oral competency requirement.
Full Term - Section 300: Wednesdays, 6-8 p.m. Helens 193. $140 (resident).

Education 4800-3
Special Topics: Creative Learning Experiences and Resources (C.L.E.A.R.)
Learn how to access your full creative potential as we explore ways to trigger right-brain functioning through multisensory learning, creative problem-solving techniques, and the conscious expansion of creative imagination and humor. See how creative learning enhances everyday life.
Session I - Section 101: Tuesdays and Thursdays, 5-8 p.m. Ketchum 301. $218 (resident).
Session II - Section 201: Tuesdays and Thursdays, 5-8 p.m. Ketchum 301. $218 (resident).

Education 4800-3
Special Topics: Stress Management and Relaxation Training (S.M.A.R.T.)
Theory and practice that teaches you how to revitalize your energy to create a more relaxed environment for yourself and others, for teaching or parenting.
Session I - Section 102: Mondays and Wednesdays, 5-8 p.m. Muenzinger E123. $218 (resident).
Education 4800-3
Special Topics: Expanding Awareness
For students who have completed CLEAR or SMART and want a deeper understanding of creativity and consciousness. We use the teachings of Jean Houston, Buckminster Fuller, Leo Buscaglia and others, and practice ways of integrating new concepts into our lives to expand personal and planetary awareness.
Session II - Section 202:
Mondays and Wednesdays, 5-8 p.m.
Muenzinger E123, $218 (resident).

Education 4800-3
Special Topics: Building Family Strengths
Family life as it impacts learning, and dynamics that promote effectiveness. We study the traits of strong families and work on skills to understand our own families and deal effectively with problems in the classroom and at home.
Full Term - Section 300: Tuesdays, 6-9 p.m.
Engineering Center CR 1-26, $218 (resident).

Education 4820-3
Workshop in Curricular and Instructional Development: Integrative Learning
Learn how to create an environment for learning, to encourage retention, improve communication and thinking skills and enhance self-esteem. This whole-brain approach to learning covers: brain/mind research, teaching and learning styles, stress management and more. Students will come to understand their own learning processes, and share ideas for personal and professional use.
Full Term - Section 301: Wednesdays, 6-9 p.m.
Engineering Center CR 1-26, $216 (resident).

Education 4820-3
Workshop in Curricular and Instructional Development: The Art of Creative Teaching (ACT)
Develop your own creativity by trying new ways to enhance learning, including: dialogues, story formats, debates, creative problem-solving, open-ended lab and research projects, scripts, movement, visual environments, music, performance, and much more. We present an innovative teaching-learning model based on creative, learning and scientific cycles that can be applied to all subject areas, from K-college.
Full Term - Section 302: Tuesdays, 6-9 p.m.
Hellem 181, $210 (resident).

SURVIVAL TIPS
*This course will partially satisfy Arts and Sciences College List requirements. Please see an advisor.

English 1191-3
Introduction to Creative Writing
Introduction to the techniques of fiction and poetry. Student work is scrutinized by the instructor and discussed in a workshop atmosphere by other students.
Full Term - Section 301: Tuesdays, 7-10 p.m.
Hellem 255, $210 (resident).
Full Term - Section 302: Thursdays, 7-10 p.m.
Hellem 259, $210 (resident).
Session I - Section 100:
Mondays and Wednesdays, 6:30-9:30 p.m.
Engineering Center CR 1-26, $210 (resident).

*English 1260-3
Introduction to Women's Literature
Introduction to the study of literature by women in England and America. Both poetry and fiction are read, and varying historical periods are covered. Designed to acquaint the student with the contribution of women writers to the English literary tradition and to investigate the nature of this contribution. Same as WMST 1260. Approved for Arts and Sciences Core Curriculum: Cultural and Gender Diversity.
Full Term - Section 300: Wednesdays, 6-9 p.m.
Ekely 1875, $210 (resident).

*English 1500-3
Masterpieces of British Literature
Introduces students to a range of major works of British literature, including at least one play of Shakespeare, a pre-twentieth century English novel, and works by Chaucer and/or Milton. Approved for Arts and Sciences Core Curriculum: Literature and the Arts.
Full Term - Section 300: Mondays, 6-9 p.m.
Engineering Center CR 1-26, $210 (resident).

*English 1600-3
Masterpieces of American Literature
Introduces students to a range of representative major works of American literature, with emphasis on works written before the twentieth century. Approved for Arts and Sciences Core Curriculum: Literature and the Arts.
Full Term - Section 300: Wednesdays, 6-9 p.m.
Engineering Center CR 1-28, $210 (resident).

*English 2600-3
Introduction to World Literature
Introduction to Greek classics in the best modern translations and to the Bible as literature, including epic, tragedy, comedy, philosophy and history. Sample texts are The Iliad by Homer, Agamemnon by Aeschylus, Oedipus Rex by Sophocles, Ulysses by Joyce, and works by Thucydides and Plato. Not open to students who have credit in HUMN 1010-1020.
Full Term - Section 300: Thursdays, 6:30-9:30 p.m.
Engineering Center CR 1-26, $210 (resident).

English 3152-3
Report Writing
Sharpen your ability to write reports, memos, business letters and resumes with clarity and ease. Topics include organizing content, writing for a specific audience, and the writing process. Format combines lecture, discussion and evaluation, with practical skill-building exercises.
Session I - Section 100:
Tuesdays and Thursdays, 6-9 p.m.
Engineering Center CR 1-24, $210 (resident).

Film
Film Studies 3501-3
Production Management
Hone production skills while learning to trim costs, using Script Breakdown and Production Boarding as a central problem-solving tool. Based on methods developed for film and TV. For students with a career interest in entertainment and filmmaking. Prerequisite: FILM 3563 or instructor consent.
Session II - Section 200:
Tuesdays and Thursdays, 7-10 p.m.
Norlin Library Audiovisual Room, $218 (resident).

Film Studies 3563-3
Producing the Feature Film
A real-world study of production, from development through distribution, for students with a career interest in film. We discuss story components, the crucial role of the script, production values, editing, music, job functions and opportunities. Analysis of current scripts and clips and feature film screenings are used throughout.
Session I - Section 101:
Mondays and Wednesdays, 7-10 p.m.
Norlin Library Audiovisual Room, $218 (resident).
Session I - Section 102:
Tuesdays and Thursdays, 7-10 p.m.
Norlin Library Audiovisual Room, $218 (resident).
Session II - Section 200:
Mondays and Wednesdays, 7-10 p.m.
Norlin Library Audiovisual Room, $218 (resident).

Fine Arts
Fine Arts 1012-3
Basic Drawing
Introductory course including pictorial design, life drawing, still-life, and landscape, using varied drawing techniques and media. Required for BFA majors; recommended for other Fine Arts majors instead of FINE 1002. May not be repeated.
Full Term - Section 300:
Mondays and Wednesdays, 7-10 p.m.
Fine Arts C175, $240 (resident).

Fine Arts 2002-3
Drawing
Problems in drawing. Exploration of possibilities in pictorial design, the human figure, and composition. May be repeated once. Prerequisite, FINE 1002 or 1012.
Full Term - Section 300: Tuesdays and Thursdays, 7-10 p.m.
Fine Arts N296, $240 (resident).
Geography

*Geography 1001-4
Environmental Systems 1 — Climate and Vegetation
Introduces the atmospheric environment of the Earth; the elements and controls of climate and their implications for hydrology, vegetation, and soils. Course has been expanded to include lab exercises which augment lecture themes by providing students hands-on experience with environmental data collection and analysis. Lab sessions will be incorporated with lectures, plus work sessions and field experiences will be offered. Approved for Arts and Sciences Core Curriculum: Natural Science.
Session I - Section 100: Tuesdays and Thursdays, 6-9 p.m. Guggenheim 3. $280 (resident).

*Geography 1011-4
Environmental Systems 2 — Landforms and Soils
Introduces 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. Course has been expanded to include lab exercises which augment lecture themes by providing students hands-on experience with environmental data collection and analysis. Lab sessions will be incorporated with lectures, plus work sessions and field experiences will be offered. Approved for Arts and Sciences Core Curriculum: Natural Science.
Session II - Section 200: Tuesdays and Thursdays, 6-9 p.m. Guggenheim 3. $280 (resident).

*Geography 1982-3
World Regional Geography
Using interrelated concepts of population, urbanization, trade resources, and development as an organizing framework, the world’s regions are geographically analyzed and placed in global perspectives.
Session II - Section 200: Mondays and Wednesdays, 7-10 p.m. Guggenheim 2. $210 (resident).

*Geography 1992-3
Introduction to Human Geography
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.
Session I - Section 100: Mondays and Wednesdays, 7-10 p.m. Guggenheim 2. $210 (resident).

*Geography 2002-3
World Geographic Problems
Set in several regions, problems include resource-use decision-making, locational analysis, third-world poverty and community development, and political and economic urban land use conflict. Small student groups in role-playing simulations leading to human decisions causing geographic change.
Full Term - Section 300: Thursdays, 7-10 p.m. Guggenheim 2. $210 (resident).

Silpi Saikia Baishya, from India, is earning her degree in Architecture while her husband works on a Ph.D. in Civil Engineering.

Geology

*Geology 1130-3
Dynamic Earth 1 — Introduction
Discusses how the origin and evolution of Earth as a planet leads to its composition and heat budget. Considers alternate energy resources. Basic concepts of the physics of the solid earth lead to a discussion of earthquakes — their causes and prediction. Not open to Geology majors. Approved for Arts and Sciences Core Curriculum: Natural Science.
Full Term - Section 300: Wednesdays, 7-10 p.m. Ketchum 118. $210 (resident).

Geology 3700-2
Geology Field Techniques in the Colorado Front Range
Field oriented approach to tracing the geologic development of the Colorado Front Range, introducing the wide variety of rock types and structures (Precambrian to Recent) found in the Boulder region. Field observations, combined with evening labs, provide a framework for discussions of current ideas of the geologic evolution of the Front Range and the Rocky Mountains as a whole. Three one-day trips are planned (September 15, 22, and 29) with destinations including the Pikes Peak area, a local gold mine, and Rocky Mountain National Park.
Session I - Section 100: Tuesdays and Thursdays, 7-9 p.m. Economics 16. $140 (resident).

Hebrew

Hebrew 1020-5
Beginning Hebrew 2
Prerequisite, Hebrew 1010.
Full Term - Section 300: Mondays, Wednesdays, and Fridays, 11 a.m. - 1 p.m. TBA. $500 (resident).

Hebrew 2110-3
Intermediate Hebrew 1
Prerequisite Hebrew 1020.
Full Term - Section 300: Mondays and Wednesdays, 1-3 p.m. TBA. $350 (resident).

History

*History 1010-3
Western Civilization 1
Survey course on the development of western civilization from its beginnings in the ancient near East to the time of the establishment of the first modern states in the seventeen century. Approved for Arts and Sciences Core Curriculum: Historical Context.
Full Term - Section 300: Thursdays, 6-9 p.m. Hellens 81. $210 (resident).
**History 1015-3**  
**History of the United States to 1865**  
Survey of American history from first settlement until the end of the Civil War. Approved for Arts and Sciences Core Curriculum: United States Context.  
Full Term - Section 300: Wednesdays, 7-10 p.m. Engineering Center CR 0-36. $210 (resident).

**History 1025-3**  
**History of the United States Since 1865**  
Survey of social, economic, political, and cultural development of the United States from the close of the American Civil War to the present. Approved for Arts and Sciences Core Curriculum: United States Context.  
Session I - Section 100: Tuesdays and Thursdays, 6:30-9:30 p.m. Economics 13. $210 (resident).

**History 1113-3**  
**The History of England to 1660**  
Deals with the period from Roman time to the seventeenth century. Covers social, political, and constitutional affairs which contributed to the creation of the English nation. Approved for Arts and Sciences Core Curriculum: Historical Context.  
Full Term - Section 300: Tuesdays, 7-10 p.m. Engineering Center CR 1-28. $210 (resident).

**History 2117-3**  
**History of Colorado**  
Emphasizes the historical variety and ethnic diversity of Colorado. Along with traditional themes in Colorado history, such as the gold rush, attention is given to Indian and Hispanic activity and culture.  
Full Term - Section 300: Mondays, 7-10 p.m. Engineering Center CR 1-24. $210 (resident).

**History 4433-3**  
**Nazi Germany**  
Examines political, social, cultural, and psychological roots of national socialism, the nature of the national socialist regime, and those policies and actions that came directly out of its challenge to values central to western civilization. Approved for Arts and Sciences Core Curriculum: Historical Context.  
Full Term - Section 300: Tuesdays, 6:30-9:30 p.m. Hellmans 199. $210 (resident).

**History 4613-3**  
**History of East-Central Europe to 1815**  
History of Eastern theocratic empires of Turks and Hapsburgs from fifteenth to nineteenth centuries, the development of political consciousness of various people composing these empires, and conflicts between Eastern theocracies and rising secularism of western Europe, culminating with the Napoleonic Wars.  
Full Term - Section 300: Wednesdays, 6-9 p.m. Hellmans 183. $210 (resident).

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**Journalism**  
**Journalism 1001-3**  
**Contemporary Mass Media**  
Examines the mass media's interaction with society, looking at journalism and the mass media in historical, intellectual, economic, political, and social contexts.  
Full Term - Section 300: Wednesdays, 6-9 p.m. Ekeley 1850. $210 (resident).

**Journalism 2001-3**  
**Mass Media Writing**  
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.  
Full Term - Section 300: Tuesdays, 6-9 p.m. Macky 3C. $210 (resident).

**Journalism 3102-3**  
**Press Photography**  
Reports with a camera. This journalism course emphasizes photography of people in a wide variety of situations for publication in a newspaper. Although you will learn the full range of black and white darkroom procedures, the emphasis here is on good images, not technical perfection. There will be a brief introduction to color slide work. Field trips and guest speakers will supplement lectures. A 35mm camera capable of completely manual operation is required. If you do not already own a camera, please consult the instructor before buying one! Students should plan to spend up to five additional hours a week in lab. The lab schedule will be arranged at the first class meeting; lab fee is $50 (included in tuition) and covers facilities and chemicals. Students should expect to spend $100-$200 for paper and film in addition to tuition and lab fees.  
Full Term - Section 300: Mondays and Wednesdays, 7-8:30 p.m. Macky 3B. $260 (resident).

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**Kinesiology**  
**Kinesiology 3420-3**  
**Nutrition and Health**  
The basic principles of nutrition and their relationship to health. Students may not receive credit for both KINE 3420 and PSYC 2062.  
Session I - Section 100: Mondays and Wednesdays, 7-10 p.m. Engineering Center CR 0-30. $210 (resident).  
Session II - Section 200: Tuesdays and Thursdays, 7-10 p.m. Engineering Center CR 0-30. $210 (resident).

**Kinesiology 3430-3**  
**Nutrition and Physical Performance**  
Current research relating to nutrition and optimal physical performance. Topics include energy utilization, fluid requirements, vitamin and mineral needs of the athlete, body composition and other issues.  
Session I - Section 200: Mondays and Wednesdays, 7-10 p.m. Engineering Center CR 0-30. $210 (resident).

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**Mathematics**  
**Mathematics 0990-3**  
**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.  
Full Term - Section 100: Tuesdays and Thursdays, 5:30-7 p.m. Engineering Center CR 1-09. $210 (resident).

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

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**Survival Tips**  
This course will partially satisfy Arts and Sciences College List requirements. Please see an advisor.
Mathematics – con't

Mathematics 1021-2
Numerical and Analytical College Trigonometry
Trigonometric functions, identities, solutions of triangles, addition of multiple angle formulas, inverse trigonometric functions, laws of sines and cosines. Students may not receive credit for both MATH 1021 and math modules MATH 1030 and 1040. Prerequisites MATH 1011 or MATH 1020 or placement examination score for MATH 1020 or 1 1/2 years high school algebra and 1 year high school geometry.
Full Term – Section 300: Tuesdays, 5:30–7:30 p.m.
Engineering Center CR 1-30. $140 (resident).

Mathematics 1071-3
Finite Mathematics for Social Science and Business
Systems of linear equations; an introduction to matrices, linear programming, and probability. Students may not receive credit for both MATH 1071 and math modules MATH 1050, 1060 and 1070. Prerequisite, MATH 1011 or MATH 1000 or placement examination score for MATH 1020 or 1 1/2 years of high school algebra.
Full Term – Section 300: Mondays, 6-9 p.m.
Engineering Center CR 1-12. $210 (resident).

*Mathematics 1300-5
Analytic Geometry and Calculus I
Selected topics in analytic geometry and calculus. Rates of change of functions, limits, derivatives of algebraic and transcendental functions, applications of derivatives, and integration. Students with credit in MATH 1081 will receive only 2 hours credit in MATH 1300. Students with credit in MATH 1300 may not receive credit in APPM 1350 or APPM 1370. Prerequisite, 2 years of high school algebra, 1 year of geometry, 1 year of trigonometry or MATH 1000-1040 or MATH 1011 and 1021.
Full Term – Section 300:
Mondays and Thursdays, 5:30–8 p.m.

Philosophy

*Philosophy 1100-3
Ethics
Introductory study of major philosophies on the nature of the good for humanity, principles of evaluation, and moral choice. Approved for Arts and Sciences Core Curriculum: Ideals and Values.
Full Term – Section 300: Mondays, 7–10 p.m.
Hellem 267. $210 (resident).

*Psychology 2303-3
Psychology of Adjustment
Survey of concepts bearing upon the processes of normal psychological adjustment, with emphasis upon using the concepts to understand common human problems in personal growth and relationships with others.
Session I – Section 100: Tuesdays and Thursdays, 6–9 p.m.
Ketchum 235. $210 (resident).
Session II – Section 200: Mondays and Wednesdays, 6:30–9:30 p.m.
Ketchum 119. $210 (resident).

Psychology

*Psychology 1001-3
General Psychology
One semester survey of major topics in psychology: perception, development, personality, learning and memory, and the biological bases of behavior.
Full Term – Section 300: Wednesdays, 6:30–9:30 p.m.
Hellem 201. $210 (resident).

*Psychology 2012-3
Biological Psychology I
Broad survey of biological bases of learning, motivation, emotion, sensory processes and perception, movement, comparative animal behavior, sexual and reproductive activity, instinctual behavior, neurobiolgy of language and thought, and neurophysiology and neuroanatomy in relation to behavior. Approved for Arts and Sciences Core Curriculum: Natural Science.
Full Term – Section 300: Tuesdays, 7–10 p.m.
Hellem 341. $210 (resident).

Psychology 4303-3
Abnormal Psychology
Examines borderline disorders as extreme variations of the normal personality. Focuses on major functional and organic disorders, theories of mental disorders, and methods of psychotherapy. Not open for credit to those who have credit for PSYC 4313. Prerequisite, PSYC 1001.
Full Term – Section 300: Tuesdays, 6:30–9:30 p.m.
Muenzinger E432. $210 (resident).

Psychology 4406-3
Social Psychology
General psychological principles underlying social behavior. Overview and analysis of major social psychological theories, methods and topics, including attitudes, conformity, aggression, attraction, social perception, helping behavior, and group relations. Prerequisite, PSYC 1001. Recommended, PSYC 2101. Approved for Arts and Sciences Core Curriculum: Contemporary Societies.
Full Term – Section 300: Mondays, 6:30–9:30 p.m.
Muenzinger E432. $210 (resident).

Psychology 4456-3
Psychology of Personality
Psychological study of structure, organization, and development of the person as a whole. Analysis of major theories, methods and research, including topics such as emotion, motivation, temperament, inner experience, identity and the self, personality change, and the influence of the sociocultural context. Prerequisite, 12 hours of psychology or consent of instructor.
Full Term – Section 300: Thursdays, 6:30–9:30 p.m.
Muenzinger E432. $210 (resident).

Psychology 4684-3
Developmental Psychology
Overview of major theories concerning the development of knowledge in children. Emphasizes contrast between empiricist, nativist, and constructivist viewpoints, as applied to the same content areas (e.g., perception, cognition, social development). Open only to juniors and seniors. Prerequisite, PSYC 1001.
Full Term – Section 300: Thursdays, 6:30–9:30 p.m.
Ekeley 1875. $218 (resident).

Religious Studies

*Religious Studies 1620-3
Religious Dimensions in Human Experience
Studies religion as individual experience and social phenomenon. Examines varieties of religious language (symbol, myth, ritual, scripture) and of religious experience (Asian, western, archaic). Approved for Arts and Sciences Core Curriculum: Ideals and Values.
Full Term – Section 300: Thursdays, 6–9 p.m.
Hellem 141. $210 (resident).
Sanskrit

The Division is pleased to offer Sanskrit 1010-3 and 2020-3 through the Independent Study Program. See page 45 for details.

Sociology

*Sociology 1001-3
Analyzing Society: An Introduction to Sociological Ideas

Examination of U.S. society in global context, using basic sociological ideas. Focuses on the nature of group life, the social and moral order, social institutions, social disorganization, social problems, and social change. Approved for Arts and Sciences Core Curriculum: Contemporary Societies.

Full Term - Section 300: Tuesdays, 6:30-9:30 p.m.
Education 143. $210 (resident).
Session I - Section 100:
Mondays and Wednesdays, 6:30-9:30 p.m.
Duane Physics 125. $210 (resident).

*Sociology 1004-3
Deviance in U.S. Society

Examination of deviant groups in the U.S. emphasizing existing theory and research about such issues as deviant careers, deviant lifestyles and behavior, and the processes of social control. Approved for Arts and Sciences Core Curriculum: Ideals and Values.

Session I - Section 100:
Tuesdays and Thursdays, 6:30-9:30 p.m.
Economics 205. $210 (resident).
Session II - Section 200:
Mondays and Wednesdays, 6:30-9:30 p.m.
Duane Physics 125. $210 (resident).

*Sociology 1005-3
Social Conflict and Social Values

Exploration of origin, escalation, and resolution of social conflict. Focuses on major conflict theories, human values and social action, and the use of simulation and negotiation exercises for learning conflict management skills. Approved for Arts and Sciences Core Curriculum: Contemporary Societies or Ideals and Values.

Full Term - Section 300: Wednesdays, 6:30-9:30 p.m. Ketchum 235. $210 (resident).

Sociology 1016-3
Sex, Gender and Society I

Examination of status and power differences between sexes at individual and societal levels. Emphasizes historical cross-cultural context of gender roles and status, and reviews major theories of gender stratification. Approved for Arts and Sciences Core Curriculum: Cultural and Gender Diversity. Same as WMST 1016.

Full Term - Section 300: Mondays, 6-9 p.m.
Hellems 141. $210 (resident).

*Sociology 2011-3
Contemporary Social Issues and Human Values

Examination of contemporary societies on a global scale, focusing on such issues as capitalism, socialism, race and ethnic problems, sex discrimination, poverty and the concentration of wealth, crime and deviance, human rights and human values, peace, and war. Approved for Arts and Sciences Core Curriculum: Ideals and Values.

Full Term - Section 300: Thursdays, 6-9 p.m.
Education 138. $210 (resident).

*Sociology 2031-3
U.S. Values, Social Problems, and Change

Examination of U.S. society from the perspective of values and theories of social change. Considers such problems as distribution of power, unemployment, poverty, racism and sexism, the changing role of the family, and drugs. Approved for Arts and Sciences Core Curriculum: Ideals and Values.

Session II - Section 200:
Tuesdays and Thursdays, 6:30-9:30 p.m.
Economics 205. $210 (resident).

SURVIVAL TIPS

*This course will partially satisfy Arts and Sciences College List requirements. Please see an advisor.

Student Rebecca Steiner reviews the concept of the Johari Window in her Basic Communication class.

Theatre

Theatre 1002-3
Introduction to Acting for Non-Majors

Teaches the basic principles of acting to non-theatre majors, focusing on relaxation, concentration, improvisation, use of imagination, actions, objectives, initial monologue and scene work, the audition process, and basic terms and concepts of process work for the actor.

Full Term - Section 300: Mondays, 6:30-9:30 p.m.
Hellems 341. $210 (resident).

Sociology 4014-3
Criminology

Scientific study of criminal behavior. Special attention is given to the development of criminal law and its role in defining crime, the causes of law violation, and the methods used to control criminal behavior.

Full Term - Section 300: Wednesdays, 6:30-9:30 p.m. Hellems 252. $210 (resident).

*Sociology 4024-3
Juvenile Delinquency

Studies factors involved in causing and distribution of delinquent behavior, problems of adjustment of delinquents, and factors in treatment and in post-treatment adjustment. Approved for Arts and Sciences Core Curriculum: Contemporary Societies.

Full Term - Section 300: Thursdays, 6-9 p.m.
Hellems 252. $210 (resident).
CREATE A PERFORMANCE ADVANTAGE.
MANAGEMENT DEVELOPMENT

Corporate America is changing. With leaner organizational structures, managers and their employees are assuming expanded roles and facing new expectations. The Management Development Certificate Program is designed to enhance your management skills, or help you get started in a management career. There are no prerequisites for enrollment, and you need not be working toward certification to take these courses. However, you may wish to formally enroll in the program, and eventually enjoy the Certificate designation.

The Management Certificate of Achievement is earned by completing three requirements.* You must:
A. Successfully complete four required courses:
   Critical Issues in Current Management
   Accounting for the Non-Accounting Manager
   Managing Marketing: Matching Products and Services for Profit
   Managing People
B. Successfully complete at least three elective courses. Any course not listed in the required core curriculum is considered an elective course. Any one Computer Applications course, and any one Business Noncredit course may be used as an elective course to fulfill Certificate requirements.
C. Participants must complete the Registration for Certificate and Noncredit Courses on page 53.

Courses cover task-related skills and basic concepts in relevant management areas. They are scheduled so that a Certificate can be achieved in two or three semesters, but not every course is offered every semester.

Getting Started. If you are a new supervisor or have not enrolled in formal management training before, it is recommended that you first enroll in the elective course, Skills for New (and Newly Promoted) Supervisors. This course is offered every September and January. Otherwise, there is no special required sequence for course enrollment.

Refunds are granted any time before a course begins, none later.

*Note: Certificate requirements have been updated since the last publication. Those enrolled before Fall, 1991, have the option of pursuing the Certificate under former or current guidelines.

People like David Federman enjoy the broadened perspective they get from Management classes, and the interaction with other business leaders.
Getting Started

MDCP 403
Basic Skills for the New (and Newly Promoted) Supervisor

Basic principles of supervision. Topics include effective communication, handling conflicts, ethics, and employee development and discipline.

Charles Rice, M.B.A.
Section 300: Tuesdays, September 24–October 22, 6:30–9:30 p.m. 5 sessions. Business 108. $120.

Core Courses

MDCP 459
Critical Issues in Current Management

Confront high priority management issues in this challenging workshop. Obtain in-depth understanding of critical issues, and the tools, tactics, and strategies to successfully resolve them in any business setting. Topics include, but are not limited to:
- Managing morale and motivation
- Pluralism and commitment to diversity
- Developing and maintaining high productivity
- Changing "problem" employees to success stories
- Merging work groups for accomplishments
- Creating a positive, productive corporate culture
- Analyzing problems to promote achievement

We use lecture/discussion, role-playing, demonstrations, small group discussion and case studies to study these issues.

Charles Rice, M.B.A.
Section 300: Wednesdays, October 9–November 20, 6:30–9:30 p.m. 7 sessions. Business 250. $178.

MDCP 429
Accounting for the Non-Accounting Manager

Accounting provides feedback to guide decisions. This course is vital for people who need to understand where numbers come from, and what they really mean. Learn how individual transactions are reported, summarized and compiled into financial statements. Learn accounting principles, focusing on the decision-making process and skills to help you make important decisions on insightful analysis of financial information.

Fred Moore, M.B.E.
Section 300: Saturdays, October 19 and 26, 9 a.m.–4:30 p.m. 2 all-day sessions. Computing Center 123. $120.

Elective Courses

MDCP 450
Getting Things Done: Strategies That Work

Days are too short. Weeks fly by. How can you increase your own productivity? Learn survival strategies. Master proven techniques that put you back in the driver's seat. Learn approaches that build skill in setting priorities, delegating tasks, managing meetings, and creating strategies to balance your work load.

Randy Bauer, M.B.A.
Section 300: Thursday, September 19, 9 a.m.–4:30 p.m. 1 all-day session. Computing Center 123. $80.

MDCP 431
Building and Managing Customer Service

Better service is on everyone's agenda. How do you make it happen? Our goal is to provide practical training by focusing on effective communication styles and powerful listening skills that demystify the process of dealing with customers, even in difficult situations. Principles are taught using examples — and ideas — from businesses that have built success on excellent customer service.

Loren Ankarlo, B.A.
Section 300: Thursdays, September 26–October 17, 6:30–9 p.m. 4 sessions. Business 108. $88.
INFORMATION TECHNOLOGY:
THE RIGHT TOOL NOW.

COMPUTER APPLICATIONS

Computers: not too long ago, we didn't know what to make of them. Now we can't live without them. Experts or beginners, our students are interested in competence. We teach skills that make work easier, so you can be less stressed, more productive and more creative. Earn a certificate. Or just learn some shortcuts. Either way, you can count on a comfortable learning environment and individual attention from instructors who can help you learn to do what you need to do as painlessly as possible.

Certificate in Computer Applications
You may earn a Certificate in Computer Applications in roughly three or four semesters, but there is no time limit. As you complete appropriate courses, credit is automatically applied toward Certificate requirements. The requirements are straightforward.

A. Four required core courses:
   1. Computer Literacy
   2. Concepts of Data Processing and Information Technology
   3. Computer Application Systems Overview
   4. Software Operations and Maintenance

   *Computer Literacy, the introductory course, is designed to be completed first, although you may take it at the same time as another course. If you have a substantial background with computers, you may omit it. Simply submit a written request to the Division of Continuing Education, if you plan on achieving the Certificate.

B. At least one course in programming. Programming languages offered include BASIC, Pascal, and C. Others are added to keep pace with industry standards.

C. Four elective application courses chosen from the full range of computer topics. Any course not listed above and not a specific programming language qualifies as an elective, including all graphics courses (see next paragraph).

These courses will give you hands-on experience with important design systems and graphics technology. Classroom labs are equipped with IBM PC and compatible microcomputers, with plotters and printers, or with fully configured Apple Macintosh SE and II systems, so you can make the best use of your course time.

All graphics courses fill elective requirements for the Certificate in Computer Applications.

Essential Information
Registration is limited by the number of computers available, so early registration is advised. Enrollment is on a first-come, first-served basis.

This symbol means you might need to share a computer with another student for a particular course.

Most courses provide one computer per student.

Details on access to computers outside of regular class time and hard disk access are given at class.

Only preregistered students may attend class.

Tuition and Refunds
Cost varies from class to class. Tuition is listed at the end of each course description. Full refunds are given on request before a course starts, none later.

Locations
The classroom location is given at the end of each course description. Many courses are conducted at the University Computing Center, 3645 Marine Street, southwest corner of 38th & Arapahoe. Consult the campus map at the end of this catalog for other locations.

Questions?
If you have any questions about this program, please call the Division of Continuing Education at 492-2348, or outside the Denver Metro area, 1-800-331-2301.

For Michael Nash, a career in photography took a happy detour when a Masters thesis on computer imaging introduced him to design technology. Now he's technical director for the Lyric Theater—the guy who figures out how to create what the designer envisions. And he teaches Macintosh-based design from intro to the advanced level. Michael says he tells students not to worry about what they don't know: “Even as beginning students, you’re on the cutting edge. Celebrate that,” he advises.
## COMPUTER APPLICATIONS COURSES, FALL 1991

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* = required Certificate courses

### Software Applications

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Publishing executive Joan Boykin says she really values computer courses at Continuing Ed. "You sit down with no interruptions—it's amazing how much you can learn in a very short time. I make it a priority to get here."
Skill Level Guide

A Guide to Computer Applications
Courses’ Recommended Skill Levels

All courses are marked with a 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.

Getting Started

**CCA 100**
**Computer Literacy**

Beginner Level
A vital introduction to concepts and terminology that make successive courses much easier to handle. Learn what computers really are—their uses and their limitations. An introductory lecture prepares you for seven hands-on labs: three on IBM PCs, three on Macintosh (Apple), one on the campus mainframe (VAX) system. After the course, spreadsheet, word processing, database and communication applications will be familiar concepts to you. Take the mystery out of basic computer jargon and learn start-up skills that open the door to more targeted learning.

[Details and schedule provided]

**CCA 105**
**Introduction to the Macintosh**

Beginner Level
Meet the friendly system that is a powerful productivity tool. Learn practical business options, system management, and basic graphics, with hands-on practice. As time permits, we will demonstrate other, more advanced applications for business and personal use. Obtain the confidence and expertise required for other Macintosh courses.

Section 301: Bob Carlisle, M.A.
- Wednesdays, August 28-September 25
Section 302: Scott Dixon, M.A.
- Mondays, September 9-October 7
Both Sections: 6:30-9:30 p.m. 5 sessions.
Fine Arts C1853. $99.

**CCA 120**
**Introduction to the IBM and Compatible Personal Computer**

Beginner Level
Get to know your DOS microcomputer. Learn important vocabulary and see the beauty of the system. Master user commands and DOS functions, with lots of hands-on practice. Also: a survey of easy software programs and an introduction to BASIC as a programming language. Course features IBM and compatible PCs, with an overview of the new Personal System 2 (PS/2) hardware and some Operating System 2 (OS/2) software features. Enrollment strictly limited.

Nancy VanWechel, M.B.A.

Section 301: Wednesdays, September 4-18
Section 302: Thursdays, September 5-19
Section 303: Wednesdays, October 2-16
All Sections: 6:30-9:30 p.m. 3 sessions.
Engineering Center CR 1-34. $79.

Novell Technology Institute

The New York Times calls it “interpersonal computing.” Networking and connectivity allow people to pool ideas and information via computer. As an affiliate of the Novell Technology Institute, the Division of Continuing Education offers courses that emphasize this computing advance. Courses and instructors are certified by Novell, to ensure instruction that conforms to progressive computer applications. Tuition includes all course materials. Courses for Fall 1991 include:

**CCA 101**
**Introduction to Local Area Networks (LANs)**

Novice Level
An overview of networking, covering LAN development, uses and benefits. We introduce major network components and discuss critical selections considerations. Learn factors that must be considered when installing a LAN. Gain a working knowledge of major LAN concepts. Detailed training in specific areas is provided by other courses described in this catalog.

Verlene Leeberg, M.A.

Section 300: Thursday and Friday, September 5 and 6, 9 a.m.-4 p.m.
2 all-day sessions. Computing Center 123. $325.

**CCA 501**
**NetWare v2.X: System Manager**

Intermediate Level
For system manager using NetWare in a working environment. You should have entry-level NetWare skills and a working knowledge of basic DOS commands including MD, CD, COPY CON, TYPE, DIR. On completion, you should be able to:
- Relate responsibilities of system management to the functionality provided by NetWare;
- List basic hardware components linked by NetWare and their expansion capabilities;
- Identify topologies used by LANs;
- Discuss the purpose and placement of NetWare, DOS, and Shell;
- Define system fault tolerance features;
- Set up workable directory structures for your own company;
- Create a multilevel security system for users, directories and files;
- Recognize most user and system supervisor command line utilities, special function menus, backup and console commands;
- Establish initial network environments through login scripts for users;
- Provide alternative functionality to the command line utilities by creating customized user menus;
- Use Novell documentation to assist in setting up a NetWork.

Verlene Leeberg, M.A.

Section 300: Fridays, September 13-October 25, 8:30 a.m.-12 noon. 7 sessions.
Computing Center 123. $475.

**CCA 502**
**NetWare v2.X: Update and Advanced Features Specialized**

Specialized Level
This course provides in-depth information on using advanced features. We cover printing utilities: PRINTDEF, PCONSOLE and PRINTCON. SYSCON account and FCONSOLE are also explained and used with FCONSOLE as a troubleshooting tool. We do not cover programming, upgrade or installation.

Verlene Leeberg, M.A.

Section 300: Fridays, November 1-December 13, 8:30 a.m.-12 noon (no class November 29).
6 sessions. Computing Center 123. $425.
Introduction to Programming Logic

CCA 305
Novice Level
An excellent first programming course. Learn common logic patterns used for programming algorithms. Programs in Basic and Pascal will be presented as students learn to write top-down code, modularize programs, apply if statements and loops. Develop good structured programming habits and write down elegant, well-documented code.
Charry Stover, M.S.
Section 300: Saturdays, September 28-November 16, 9:30 a.m.-12 noon.
8 sessions. Engineering Center CR 2-3, $140.

BASIC Programming

CCA 300
Novice Level
Learn the basics of BASIC (Beginners All-purpose Symbolic Instruction Code), quite possibly the easiest language to learn to program a computer. Hands-on experience takes you through searching and sorting methods, data structures and use of general programming skills. Text: BASIC Fundamentals and Styles, Quassey and Marr, at University Book Center.
Bob Carlisle, M.A. and Tom Swanson, M.A.
Section 300: Wednesdays, October 2-November 20, 6:30-9:30 p.m.
8 sessions. Engineering Center CR 1-2, $170.

Intermediate BASIC Programming on the Macintosh

CCA 304
Intermediate Level
Extend the lessons learned in CCA 300 BASIC Programming. Topics covered will include: a BASIC review, Mac graphics, screen techniques, pull down menus, mouse techniques, logical, and advanced file techniques. The Intermediate BASIC course will use the Microsoft Macintosh Quick BASIC programming environment. The optional text is Basic Microsoft BASIC for the Macintosh by Coan and Coan.
Tom Swanson, M.S.
Section 300: Saturday, December 7, 9 a.m.-5 p.m.
1 all-day session. Norlin Library N310B. $95.

Programming in Pascal

CCA 319
Intermediate Level
Pascal is a commonly used and versatile programming language, especially in business applications. This course presents the principles 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 double-sided, double-density 5¼ inch diskette, available at all computer stores.
Steven A. Johnson, B.S.
Section 300: Thursdays, September 19-November 7, 6:30-9:30 p.m.
8 sessions. Engineering Center CR 1-2, $170.

Introduction to C Programming

CCA 320
Intermediate Level
Master the fundamentals of C programming, including: data types, control structures, functions and parameter passing, program structure, separate compilation, the preprocessor, basics, arrays, strings, pointers, and structures. We strongly emphasize portability, readability, efficiency, and maintenance issues. Format is lecture with homework exercises to reinforce lecture concepts. Some programming experience required. Fluency in almost any language will suffice; Pascal, ALGOL, or a similar language preferred. Text: The C Programming Language, Kernighan and Ritchie, University Book Center, UMC 10.
Carol J. Meier, M.S.
Section 300: Mondays, September 9-October 21, 6:30-9:30 p.m. 7 sessions.
University Computing Center 123. $250.

Intermediate C Programming

CCA 325
Specialized Level
First, we examine the ANSI C changes to the language. Then, each week we explore a particular topic in more detail, diving into the more complex data structures, command line arguments and environment, the standard C library file I/O and dynamic memory management routines, advanced features of the preprocessor, and specially data structures (bit fields, enumerations, and unions). Also covered: techniques for writing portable code, and enhancements to the language. Prerequisite: CCA 320 or 6 months C programming experience and comfort with intro topics (including pointer). Text: The C Programming Language, Kernighan and Ritchie, University Book Center, UMC 10.
Carol J. Meier, M.S.
Section 300: Mondays, October 28-December 9, 6:30 a.m.-12:30 p.m. 7 sessions.
University Computing Center 123. $250.

Advanced Topics in C Programming

CCA 324
Specialized Level
A one-day tutorial for intermediate C programmers who want to explore more powerful features. We emphasize ANSI C changes to the language, portability techniques, and object-oriented programming. We begin with a quick review and progress to advanced preprocessor features. We cover data structures used for special purposes and look at a technique for writing and reading portable binary data files that can be moved as is to other platforms. We explore functions and pointers, to extend a portable file I/O example. And we conclude with examples that illustrate data encapsulation and dynamic binding as basic techniques for object-oriented programming in C.
Carol J. Meier, M.S.
Section 300: Saturday, October 5, 9 a.m.-4:30 p.m.
1 all-day session. Computing Center 123. $150.

Introduction to C++ Programming

CCA 327
Intermediate Level
C++ is an extension of C that supports "object-oriented programming," focusing on the class (an extension of C's struct). We cover class member functions, constructors, and destructors, followed
by class inheritance and virtual functions. Also, language extensions not directly related to object-oriented programming, including: function overloading, default arguments, function prototypes, constants, and in-line functions. Best of all, we cover what not to use and what features to avoid.

Tom Carrig, Ph.D.
Section 300: Mondays,
September 23–October 28, 6:30–9:30 p.m.
6 sessions. Business 251. $235.

**CCA 328**
**Intermediate C++ Programming**
Specialized Level
This course reinforces object-oriented programming and concentrates in-depth on important details — how classes and references interact with regular C features, for example. Memory allocation is well covered, because it can be a serious performance bottleneck. Class materials include an introduction to multiple inheritance and operator overloading and an outline of language extensions that will soon appear in compilers.

Tom Carrig, Ph.D.
Section 300: Saturday, November 9,
9 a.m.–4:30 p.m. 1 all-day session.
Computing Center 123. $150.

**Systems**

**CCA 200**
**Using MS-DOS**
Intermediate Level
File management made easier, with a firm grasp of DOS commands. We cover: practical commands like copy, delete, disk format, hard disk commands to create, remove, and back up directories; and an introduction to batch files. Prerequisite is CCA 100, CCA 120 or equivalent experience. Bring a double-sided/double-density 5 1/4-inch diskette to class to store your example files.

Section 301: Verlene Leeburg, M.A.
Saturday, September 28, 9 a.m.–5 p.m.
1 all-day session.

Section 302: Verlene Leeburg, M.A.
Wednesday, October 2–16, 6:30–9 p.m.
3 sessions.

Section 303: Peggy Purvis.
Saturday, October 19, 9 a.m.–5 p.m.
1 all-day session.

Section 304: Nancy VanWechel, M.B.A.
Saturday, November 9, 9 a.m.–5 p.m.
1 all-day session.

All Sections: University Computing Center 114. $90.

**CCA 203**
**Advanced DOS**
Intermediate Level
Learn to create your own commands, take control of your system and create "smart" commands. We begin with I/O redirection, pipes, and filter commands for customizing DOS, leading to creation of smart commands that allow you to develop other powerful commands tailored to your specific needs. Prerequisite is CCA 200 or comparable skill level.

Nancy VanWechel, M.B.A.
Section 300: Saturday, December 7,
9 a.m.–4:30 p.m. 1 all-day session.
Computing Center 114. $90.

**CCA 331**
**Introduction to Local Area Networks (LANs)**
Intermediate Level
Discover the tremendous value and practical possibilities of Local Area Networks. We survey the major LANs available and study LAN methods and common standards. A smart step if you are considering installing a LAN, or simply want to understand this rapidly growing method of interconnecting personal computers. Lab session included.

Larry G. Lankford, M.S.
Section 300: Wednesdays, September 25–
October 23, 6:30–9:30 p.m. 6 sessions.
University Computing Center 123. $165.

**CCA 335**
**Concepts of Data Processing and Information Technology**
Intermediate Level
Introduction to the advanced concepts and terminology of business data processing and organizational information systems. Major topics include: computer organization, teleprocessing systems and applications development and support, personal computers, and commercial systems development. Career opportunities, the future of computers in society, and requisite backgrounds for data processing professionals are discussed. Through class discussions and on-line demonstrations, this class allows students to come away with a solid understanding of both practical and theoretical concepts which will enhance their opportunities in fields of data processing and information technology. A required text and optional study guides will be discussed at the first class session.

Ron Clarke, M.S.
Section 300: Thursdays, September 19–
November 7, 7–9:30 p.m. 8 sessions.
University Computing Center 123. $165.

**CCA 350**
**Software Operations and Maintenance**
Intermediate Level
Develop effective tools to monitor and organize computer systems that are critical to efficient computer operations. We cover: systems analysis, configuration options, software design and selection, installation, data conversion, logging and file maintenance, documentation, support contracts, training, and error identification. Lab session included.

Pat Felz, M.A.
Section 300: Wednesdays, October 23–
December 18, 6:30–9 p.m. 8 sessions.
University Computing Center 123. $165.

**CCA 360**
**Introduction to UNIX**
Intermediate Level
Become a proficient user of the UNIX operating system. For anyone who needs to use UNIX, program in its environment, manage UNIX users, or obtain sufficient knowledge to evaluate it. No prior UNIX experience is required, but computer literacy is assumed. We cover fundamentals plus a few advanced topics, including: history, the importance of different versions, files, directories, permissions, essential commands, editors, the Bourne and C shells, I/O redirection, pipes, command substitution, environment variables, powerful features of the C shell, and a look inside the UNIX kernel.

Ed Zucker, M.S.
Section 300: Tuesdays, September 10–
October 22, 6:30–9:30 p.m. 7 sessions.
University Computing Center 123. $250.

**CCA 364**
**Intermediate UNIX**
Specialized Level
The perfect next step for advancing your use of UNIX to your own tools, or do system administration. We cover advanced use of UNIX commands, including: creating and executing shell programs, start-up files, variables, parameters, simple and multiple case branching, loops, signal handling, testing file attributes, plus some ingenious little-known features. Note: a thorough knowledge of UNIX fundamentals is required.

Ed Zucker, M.S.
Section 300: Tuesdays, October 29–
December 10, 6:30–9:30 p.m. 7 sessions.
University Computing Center 123. $250.

**CCA 374**
**UNIX Programming Tools**
Intermediate Level
Access a superior environment for software development. Learn the tools for C software development in the UNIX programming environment. Produce more reliable code by understanding how each tool related to each other in the development cycle. Topics include: understanding the preprocessor, compiler, assembler and link editor; creating and maintaining object libraries; debugging techniques; using make to automate building programs, libraries and projects; maintaining versions of source code with SCCS and RCS. Prerequisites: knowledge of C programming and UNIX fundamentals.

Geoff Thompson, M.S.
Section 300: Saturday, November 2,
9 a.m.–4:30 p.m. 1 all-day session.
Computing Center 123. $150.

**CCA 378**
**Technical Introduction to the X Window System**
Intermediate Level
Increasingly, users expect programs to use a Graphical User Interface (GUI). Learn to program with X — a window system emerging as a standard in much of the computer industry. Utilize the X library and toolkits and obtain the technical knowledge necessary to evaluate its capabilities and suitability for product development. Topics include: window system concepts; X protocol and client/server model; event driven programming; X library, graphics and resources; widget and the innominate; call-back style programming; toolkits; Openlook, Motif, Object Interface and X11; X and Y11. Prerequisite: knowledge of C programming.

Geoff Thompson, M.S.
Section 300: Saturday, October 12,
9 a.m.–4:30 p.m. 1 all-day session.
Computing Center 123. $150.
Software Applications On the IBM and Compatible Computers

CCA 210
Introduction to Windows
Intermediate Level
Microsoft Windows (with IBM Presentation Manager and other desktop accessories), is generating tremendous interest. We answer your questions about this important PC development, and explore the utility of this powerful program covering the desktop system, standard MS-DOS interface, the future of OS/2, and Windows as a productivity enhancement.

Samten Nagarajan, B.A.
Section 301: Thursdays, October 24-November 7
Section 302: Thursdays, November 14-December 5
Both Sections: 6:30-9:30 p.m. 3 sessions.
University Computing Center 142. $96.

Database

CCA 235
Introduction to SAS — Statistical Analysis System
Intermediate Level
Get comfortable with the valuable business/research tool. We cover SAS language, processing data into SAS data sets, manipulating data, SAS procedures for analyzing, rearranging, displaying and summarizing data.
Otis Pratt, M.S.
Section 300: Saturdays, September 28-October 26, 9-11 a.m. 5 sessions.
Engineering Center CR 2-32. $99.

CCA 370
Database Management: Applying dBase III+/IV
Intermediate Level
From a wealth of information, we need easy ways to extract and organize data for decision making and custom functions. dBase III+ and IV are powerful, productive systems for this use. This course covers the database concept; different ways to organize, access and report information; and how to develop applications for specific needs. We study special applications of dBase III+ and previous versions as they relate to version IV. Bring two double-sided/double-density 5 1/4 inch diskettes.
Clyde Getty, B.S.
Section 301: Mondays, September 9-October 7
Section 302: Mondays, October 14-November 11
Both Sections: 6:30-9:30 p.m. 5 sessions.
University Computing Center 114. $165.

CCA 372
Advanced dBase III+/IV Applications
Intermediate Level
Explore advanced features of this powerful software. We cover multiple files, use of functions, total system design and, time permitting, automatic command file generation and other sophisticated features. Some programming background is required, plus familiarity with programming in dBase, or CCA 370 as a prerequisite. Bring a double-sided/double-density 5 1/4 inch diskette.
Clyde Getty, B.S.
Section 300: Mondays, November 18-December 2, 6:30-9:30 p.m. 3 sessions.
University Computing Center 114. $125.

CCA 373
dBase III+/IV for Programming
Specialized Level
Learn to use this powerful software for special custom applications. Topics include upgrade from dBase III+ to dBase IV. We focus on dBase IV, but dBase III users are accommodated. Some programming experience recommended, and familiarity with dBase commands. Bring a double-sided/double-density 5 1/4 inch diskette.
Clyde Getty, B.S.
Section 300: Mondays, December 9 and 16, 6:30-9:30 p.m. and Saturday, December 21, 9 a.m.-12 noon, 3 sessions.
University Computing Center 114. $96.

Data Graphics and Presentations

CCA 212
Introduction to PowerPoint on the PC
Novice Level
Create presentation using Microsoft PowerPoint running on Windows. Topics include: designing the master slides, creating text and graphic charts; drawing objects and entering text on slides; editing objects and text; creating notes and handouts for presentations; pasting graphics from other programs; printing options.
Samten Nagarajan, B.A.
Section 300: Wednesdays, October 2-16, 6:30-9:30 p.m. 3 sessions.
University Computing Center 142. $75.

CCA 230
Introduction to Harvard Graphics
Novice Level
For IBM and IBM-compatible users, an excellent way to make data and graphic presentations more effective. Learn how to professionally display or document your output for presentations or printing. Create charts, graphs, lists, and explore personalized variations of program features. Bring a DOS-formatted 5 1/4 inch double-sided/double-density diskette.
Samten J. Nagarajan, B.A.
Section 300: Saturdays, October 26 and November 2, 9 a.m.-3 p.m. 2 sessions.
University Computing Center 114. $75.
Computer Applications

Spreadsheets

CCA 345 Excel for Windows
Novice Level
Explore this increasingly popular spreadsheet/graphics/database package that runs in the Windows environment. We cover basic worksheet skills (entering data, formatting cells, creating formulas, etc.), and explore the wealth of graphic features like 3-D bar and pie charts, with rotational capabilities. 1-2-3 users will learn how easily Excel reads their files, and the extensive Help facility, designed with them in mind.
Dennis Taylor, M.S.
Section 300: Wednesdays, October 23-November 6, 6:30-10 p.m. 3 sessions.
University Computing Center 142. $115.

CCA 330 Beginning Lotus 1-2-3
Novice Level
Boost your productivity by learning to use Lotus efficiently. Learn practical guidelines for: designing and building spreadsheets with classic problem-solving steps, database sort and query, graphics/chart generation and printing. We cover: copying, ranges, painting, pointing, @ functions and relative and absolute referencing. Includes hands-on exercises to reinforce learning. Updated for Version 2.2 (2.0 and 3.1 users are accommodated). Bring a double-sided/double-density 5 1/4 inch diskette.
Section 301: Dennis Taylor, M.A.
Thursdays, September 12-October 3, 6:30-9:30 p.m. 4 sessions.
Section 302: Dennis Taylor, M.A.
Saturday, September 14 and 21, 9 a.m.-12 p.m. 2 sessions.
Section 303: Nancy VanWechel, M.B.A.
Thursdays, October 10-31, 6:30-9:30 p.m. 4 sessions.
All Sections: University Computing Center 114. $135.

CCA 332 Intermediate Lotus 1-2-3
Intermediate Level
Master more advanced applications through work in four areas. Advanced commands covers: menu items, worksheet, range, and file commands, with attention to preventing data loss, range naming and manipulating, global search/replace and enhancements. File linking encompasses design, approaches, and rules for linking files. All categories of @ functions are studied. Macros are covered last (defining, naming, rules). Hands-on exercises in all four areas. Updated for significant enhancements of version 2.2/2.3. Bring a formatted 5 1/4 inch double-sided/double-density diskette. Prerequisite: CCA 330 and/or working knowledge of Lotus spreadsheets.
Nancy VanWechel, M.B.A.
Section 300: Wednesdays, October 30-November 13, 6:30-9:30 p.m. 3 sessions.
University Computing Center 114. $125.

CCA 334 Advanced Lotus 1-2-3
Intermediate Level
For the experienced Lotus user, comprehensive review of format to enhance spreadsheet construction and data interpretation. Major sections include: memory optimization techniques, hints and hazards, advanced data commands, file translation, and advanced macros. Advanced data commands include tables, distribution, regression, matrix multiply, and database statistics. The macro section includes version 2.2 learn and macro manager along with special macro commands. We focus on version 2.2 and 3.1 concepts but 2.0 users are accommodated. Bring a 5 1/4 inch double-sided/double-density diskette.
Nancy VanWechel, M.B.A.
Section 300: Saturday, November 16, 9 a.m.-4 p.m. 1 all-day session.
University Computing Center 142. $95.

Word Processing

CCA 375 Word for Windows
Novice Level
Learn all the fundamentals with Microsoft Word for the IBM/compatible Windows environment—a powerful package. We cover everything you need to create a simple document: editing, filling and filing documents, cursor movement, deleting, simple formatting, the help system, special effects, and printing. Bring a 5 1/4 inch double-sided/double-density diskette to class.
Samir Nijagaran, B.A.
Section 300: Wednesdays, September 4-25, 6:30-9:30 p.m. 4 sessions.
University Computing Center 114. $130.

CCA 380 Beginning WordPerfect Word Processing
Novice Level
Learn to use WordPerfect to produce and edit simple documents. Learn to set margins and tabs, copy and move blocks of text, check spelling, use the thesaurus, and print documents. An understanding of file save and disk management principles is assumed. Prerequisite is CCA 120, CCA 100 or equivalent experience. Bring a 5 1/4 inch double-sided/double-density diskette.
Section 301: Peggy Purvis
Wednesdays, September 11-25, 6:30-9:30 p.m. 3 sessions.
Section 302: Nancy VanWechel, M.B.A.
Saturday, October 5 and 12, 9 a.m.-3 p.m. 2 sessions.
Section 303: Peggy Purvis
Tuesday, October 8-22, 6:30-9:30 p.m. 3 sessions.
All Sections: University Computing Center 114. $115.

CCA 382 Intermediate WordPerfect
Intermediate Level
If you like WordPerfect, this course helps you use it to full advantage. We cover file management, page format (headers, footers, page layouts, page numbers), columns, macros, and merge and sort. Prerequisite: CCA 380 or comparable experience. Bring a formatted 5 1/4 inch double-sided/double-density diskette.
Peggy Purvis.
Section 300: Tuesdays, October 29-November 12, 6:30-9:30 p.m. 3 sessions.
University Computing Center 114. $115.

CCA 385 Tables and Forms with WordPerfect 5.1
Intermediate Level
Create your own calendars, invoices, lists, fill-in formats for preprinted documents, government and tax forms. Topics include automatic numbering, graphic lines, macros, math, merges, and fonts as tools to customize forms. Bring a printed form to use as a class project, and a formatted 5 1/4 inch diskette.
Peggy Purvis.
Section 300: Saturday, November 23, 9 a.m.-5 p.m. 1 all-day session.
University Computing Center 142. $90.

CCA 384 Advanced WordPerfect
Intermediate Level
For experienced users (or those who have completed CCA 380 and CCA 382) who need to produce large, complex documents. We cover: table of contents, indexes, master documents, footnotes, outlines, equations, symbols, styles, and graphics. Example documents are provided but please bring a formatted 5 1/4 inch diskette to store your work.
Peggy Purvis.
Section 300: Tuesdays, November 19-December 3, 6:30-9:30 p.m. 3 sessions.
University Computing Center 114. $115.

Software Applications On The Apple Macintosh

CCA 215 Introduction to HyperCard
Novice Level
HyperCard is a self-contained programming environment for non-programmers that is easy to learn and use, yet allows you to create very sophisticated custom applications. It facilitates the creation of databases the way word processing automates the creation of documents. In this beginning class we examine what the program does and the controls used to make it work. We work on developing a "stack" designed to show you many of HyperCard's unique assets. Bring a standard 3.5 inch diskette to class.
Greg McArther, Ph.D.
Section 300: Saturday, September 28, 9 a.m.-4 p.m. 1 all-day session.
Fine Arts C1853. $75.
Integrated Software
CCA 201
Applying Microsoft Works
Novice Level
Get to know an extremely useful system, featuring word processor with drawing and mail merge, spreadsheet, with interactive charting, database with full information retrieval and organization, and communications programs, all in one package. Another plus—multiple documents can be on-screen at once, making it easy to cut and paste. This course provides an excellent overview of Works and prepares you for comfortable use. Bring a 3.5 inch diskette to class.
J. Burke Taft, M.Ed.
Section 300: Wednesdays, October 9-November 6, 6:30-9:30 p.m. 5 sessions.
Fine Arts C1B53. $125.

Spreadsheets
CCA 336
Excel Spreadsheet Productivity
Novice Level
Discover features that make Excel a powerful and easy-to-use productivity tool for the Mac and see how it works with other software. Learn the basics of spreadsheet design, including editing, formatting and printing a worksheet. Also: formulas and functions, the database, charting and graphing, and macros. Bring a 3.5 inch diskette to class.
J. Burke Taft, M.Ed.
Section 300: Wednesdays, November 13-December 11, 6:30-9:30 p.m. 4 sessions.
Fine Arts C1B53. $135.

Business Presentations
CCA 301
Macintosh Desktop Presentations
Novice Level
Desktop Presentations is a new concept expanding from the Desktop Publishing field. Technical advancements of laser printers and film recorders has changed this industry dramatically. Professional visual aids now can be created at a fraction of the former cost and in a matter of hours instead of days. This hands-on workshop will give you a chance to experiment with Macintosh software and hardware developed for this industry. Topics to be covered include:
• Effective presentation techniques
• PowerPoint and other presentation software
• Creating overhead transparencies and slides
• Flipcharts in a flash
• Making easy-to-use scripts
Laser printing and 35 mm slides of projects will be done in class. Please bring one 3.5-inch Macintosh-compatible diskette to first class.
Juliana Packer, B.F.A.
Section 300: Saturday, November 16, 9:30 a.m.-4:30 p.m. 1 all-day session.
Fine Arts C1B53. $75.

Word Processing
CCA 378
Beginning Microsoft Word
Novice Level
Tap the full power of flexible, efficient word processing through mastery of Word, the leading Macintosh software package. Learn basics that enable you to produce practical business documents: editing, text/graphic interfaces, use of key features. Bring a 3.5 inch diskette to class.
Steven A. Johnson, B.S.
Section 301: Tuesdays, September 30-October 1 Section 302: Mondays, October 14-November 4 Both Sections: 6:30-9:30 p.m. 4 sessions.
Fine Arts C1B53. $135.

CCA 381
Advanced Microsoft Word
Intermediate Level
Master the most popular advanced features of Word. We emphasize time-saving skills, formatting style sheets, mail merge facility, formulas and how to produce professional-looking text. Prerequisite: CCA 378 or comparable experience. Bring a 3.5 inch diskette.
Steven A. Johnson, B.S.
Section 300: Mondays, November 12-25, 6:30-9:30 p.m. 3 sessions.
Fine Arts C1B53. $99.

Computer Aided Design
CAD 311
Beginning Computer Aided Design
Novice Level
Once associated with extensive programming knowledge and large, expensive computer systems, Computer Aided Design (CAD) is now an affordable tool for anyone interested in draft ing 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 in engineering, design, drafting, and architecture
• Overview of AutoCAD software
• Highlights of upcoming CAD Level I and II courses
• The impact and future of CAD
• Hardware and peripherals
• Managing CAD system issues
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 have 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, need basic information, and have no CAD background.
David W. Claffin, M.Arch.
Section 300: Thursdays, August 6-September 6, 6:30-9:30 p.m. 2 sessions.
University Computing Center C142. $70.

CAD 322
Computer Aided Design: Level I
Novice Level
Explore the capabilities of computer aided design, using AutoCAD on a 386-based PC. We cover drawing set-up, creating and editing points—all the skills you need to edit and plot your own drawings. Topics include:
• Loading AutoCAD
• MIRROR Commands
• Drawing Editors
• Display Commands
• New Drawing Set-Up
• Producing Hardcopy
• Text Specifications and
• Layering
• Editing Commands
• Putting it all together
Who Should Attend: Anyone interested, or who plans to be involved, in technical drawing or drafting. Helpful for architects, engineers, or designers who need these skills to upgrade their work. Anyone interested in the dynamic CAD field.
Section 301: Sharon Blender, M.S. Tuesdays, September 3-October 8, 6:30-9:30 p.m. 6 sessions
Section 302: Dan Myers, M.S. Mondays, September 9-October 14, 6:30-9:30 p.m. 6 sessions
Section 303: Philip M. Kreiker, MSEE Wednesday, Thursday, Friday, September 11-13, 9 a.m.-4 p.m. 3 all-day sessions.
Section 304: David W. Claffin, M.Arch. Thursdays, September 12-October 17, 6:30-9:30 p.m. 6 sessions.
All Sections: University Computing Center C142. $240.
CAD 333
Computer Aided Design: Level II
Intermediate Level
Expert instruction for people seeking advanced CAD drafting capabilities. Topics include:
- Section 1: Automatic Dimensioning
- Section 2: Wireframe and solids
- Section 3: Section 1: Automatic Dimensioning
- Section 4: Section 2: Wireframe and solids
- Section 5: Section 3: Section 2: Wireframe and solids
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- Section 7: Section 5: Section 2: Wireframe and solids
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- Section 9: Section 7: Section 2: Wireframe and solids
- Section 10: Section 8: Section 2: Wireframe and solids
- Section 11: Section 9: Section 2: Wireframe and solids
- Section 12: Section 10: Section 2: Wireframe and solids

Who Should Attend: Useful for engineers, architects, and designers seeking to advance computer applications in their fields. Skills apply to a variety of other fields.

Section 301: Phillip M. Kreiker, M.S.
Wednesday and Thursday, October 2 and 3, 8 a.m.-4 p.m. 2 all-day sessions.

Section 302: Sharon Blender, M.S.
Tuesday, October 15-December 12, 6:30-9:30 p.m. 5 sessions.

Section 303: Dan Meyers, M.S.
Monday, October 21-November 18, 6:30-9:30 p.m. 5 sessions.

Both Sections: University Computing Center 142. $230.

CAD 390
Advanced Topics in Macintosh Computer Art
Intermediate Level
This course will offer the seasoned Macintosh graphics creator an opportunity to further explore object-oriented drawing, color bit-mapped painting, and electronic image processing along with ideas for output of work. Individual projects will be the focus of this five session seminar. Knowledge of object-oriented drawing programs and/or bit-mapped paint programs is required. Bring a Macintosh SE or an Apple with 15 minutes of work for each project. Section 300: Tuesday, December 3 and 10, 6:30-9:30 p.m. 3 sessions, $150.

Section 301: Phillip M. Kreiker, M.S.
Wednesday and Thursday, October 2 and 3, 8 a.m.-4 p.m. 2 all-day sessions.

Section 302: Dan Meyers, M.S.
Monday, October 15-December 12, 6:30-9:30 p.m. 5 sessions.

Both Sections: University Computing Center 142. $240.

Computer Graphics Art
On the Apple Macintosh
CGC 355
Basic Macintosh Computer Art
Novice Level
Get hands-on experience with basic graphics techniques as we explore the program SuperPaint. Discover how to use this computer program for business and personal artistry. In the process, become familiar with bit-mapped and object-oriented design, and learn to produce ready-to-use graphics. We cover scanner technology and graphics, laser printing, color separations, and more. The Macintosh SE with opportunities to work on the Macintosh IIc. Course counts as elective credit toward the Certificate in Commercial Design. Some Macintosh experience is assumed. Bring a 3.5-inch diskette to class.

Section 301: Michael Nash, M.F.A.
Thursday, September 5-October 3, 6:30-9:30 p.m. 5 sessions.

Section 302: Barry Ratliff, M.F.A.
Saturday, October 19 and 26, 9 a.m.-5 p.m. 2 all-day sessions.

Both Sections: Fine Arts C1853. $150.

CGC 356
Intermediate Macintosh Computer Art
Intermediate Level
Hands-on experience with advanced applications of packages like Aldus Freehand (new version), Adobe Illustrator, and Digital Darkroom, and color applications (Studio 8 and Photoshop) to produce laser-printed artwork. Learn to import and manipulate digitized images from many source formats, create high-quality images, and produce quality images. On your own Macintosh SE or IIc with access to a Mac IIc with color capabilities. Course counts as elective credit toward the Certificate in Commercial Design. Prerequisite: CGC 356 or some working knowledge of SuperPaint. Bring a Macintosh SE or IIc with a 3.5-inch diskette to class.

Section 300: Tuesday, October 29-November 26, 6:30-9:30 p.m. 5 sessions.

Both Sections: Fine Arts C1853. $150.

CGC 357
Intermediate Macintosh Computer Art
Intermediate Level
This course will offer the seasoned Macintosh graphics creator an opportunity to further explore object-oriented drawing, color bit-mapped painting, and electronic image processing along with ideas for output of work. Individual projects will be the focus of this five session seminar. Knowledge of object-oriented drawing programs and/or bit-mapped paint programs is required. Bring a Macintosh SE or an Apple with 15 minutes of work for each project. Section 300: Tuesday, December 3 and 10, 6:30-9:30 p.m. 3 sessions, $150.
Computer Graphics Art
On the IBM and Compatible Computers

CCG 351
Computer Graphics Art I

Novice Level
The drawing board of the future is a computer screen. Hands-on understanding begins here. See what’s new, and do in-class work that lets you use the computer as a creative tool. A slide is made of your best work. Four of the most recent bit-map and object-oriented packages are introduced. Software packages include: Micrografx, CorelDraw and PC Paint. IV. These contain over 50 professional typefaces, ability to fit text to a curve, calligraphic pen shapes, special effects using 3-D and airbrush with fountain fills. We cover creative use of graphics tools, font manipulation, instant layout, design considerations for logos and illustrations, and production of business graphics. See some exciting work and do some, too. Especially recommended for working professionals. Course counts toward the Certificate in Commercial Design. Bring a double-sided/double-density 5/4 inch diskette.
Pat Lehman, M.A.
Section 301: Saturdays, September 28 and October 5
Section 302: Saturdays, October 12 and 19
Both Sections: 9 a.m.-5 p.m. 2 all-day sessions.
University Computing Center 142. $150.

CCG 361
Computer Graphics Art: Level II

Intermediate Level
This progressive course takes you to the next level of computer graphics skill. Gain hands-on experience solving design problems. We cover: making your own fill pattern, advanced illustration, grids, production from start to finish, portfolio preparation using color laser prints — even how to network for computer graphics jobs. We focus on drawings for high resolution output. Software used is an ideal tool for creating professional-quality art work, business graphic presentations, and technical illustrations. We review slides and videos presenting video-paint systems used in TV production and discuss animation and other production skills. Ideal for people in the visual arts, or anyone interested in this dynamic field. Course counts toward the Certificate in Commercial Design. Bring a double-sided/double-density or high density 5/4 inch diskette.
Jerry Reynolds, MSEE
Section 300: Wednesdays, November 13-December 18, 6:30-9:30 p.m. 5 sessions.
University Computing Center 142. $160.

Desktop Publishing
On the Apple Macintosh

CCG 373
QuarkXPress for the Designer

Novice Level
The preferred desktop publishing software of professional graphic designer, XPress permits more precise type manipulation and more comprehensive treatment of illustrations and halftones with color separation. Its impact on the designer or production artist is dramatic, because more work is produced in less time and last-minute changes are easier to handle. This course teaches proficiency and highlights the package’s compatibility with related products like PostScript drawing programs, paint applications, scanners, image editing programs, word processors, and other page layout programs. Recommended text, Using QuarkXPress, available at University Book Center, UMC 10.
Tim Meehan
Section 301: Saturdays, October 5 and 12
Section 302: Saturdays, November 2 and 9
Both Sections: 9 a.m.-5 p.m. 2 all-day sessions.
Fine Arts C1853. $160.

CCG 371
Introduction to Aldus PageMaker

Novice Level
Easy enough for the novice, yet comprehensive enough for the professional designer. PageMaker streamlines design, layout and production of any material, while using the standard Macintosh interface to excellent use. Hands-on time is spent getting to know PageMaker, using the electronic drawing board, creating formats and master pages, placing text and graphics, editing your documents and creating your own masterpiece. Finished work is laser printed in class. Bring a 3.5 inch diskette to class.
Section 301: Juliana Packer, B.F.A.
Saturday, September 14 and 21, 9 a.m.-5 p.m. 2 all-day sessions.
Section 302: Sharon Pike, B.A.
Thursday, October 10-November 7, 6:30-9:30 p.m. 5 sessions.
Both Sections: Fine Arts C1853. $160.

CCG 372
Advanced PageMaker

Desktop Publishing

Intermediate Level
Move beyond basics to refine your desktop skills. We cover: formats for importing line art, scanned photos and graphics; PC file conversion; high-quality text output. We also study advanced design concepts, learn time-saving touches and do a graphics software review. Finished work is output in class. Bring a 3.5 inch diskette to class. Perfect for people involved in desktop publishing who have mastered PageMaker basics.
Juliana Packer, B.F.A.
Section 300: Saturdays, November 23 and December 7, 9 a.m.-5 p.m. 2 all-day sessions.
Fine Arts C1853. $130.

Desktop Publishing
On the IBM and Compatible Computers

CCG 387
Ventura Desktop Publishing

Novice Level
Learn to use this popular software to enhance your ability to produce camera-ready originals, merging high quality typography with graphics. We cover publication of long documents, use of peripheral software programs for creating and manipulating text and graphics, file management, style sheet maintenance, and output devices. We study page design and typographic concepts. High quality printing of finished products is done in class.
Bruce Frenner, M.A.
Section 300: Saturdays, October 26 and November 2, 9 a.m.-4:30 p.m. 2 all-day sessions.
University Computing Center 142. $160.

CCG 389
Advanced Ventura Desktop Publishing

Advanced Level
Ventura offers the experienced PC desktop publisher a great deal of power and flexibility. This advanced course teaches current Ventura users the intricacies of Ventura 2.0 and its professional extension. Topics include:
• Automatic page, table, and figure numbering
• Table features, table of contents
• Indexes, anchoring frames
• Other features the class will find professionally helpful.
Advanced techniques for graphics and paragraph tagging will also be discussed. Course emphasizes a strong working knowledge of advanced functions. Prerequisite: completion of CCG 387 or equivalent knowledge and experience.
Bruce Frenner, M.A.
Section 300: Saturdays, December 7 and 14, 9 a.m.-4:30 p.m. 2 all-day sessions.
University Computing Center 142. $160.

CCG 377
Introduction to PageMaker

Novice Level
This intensive workshop addresses the basics of desktop publishing, including page layouts, creative formats, and type font styles. All work is done with a computer. We cover innovative type management and style issues, building art into page construction, and scanner technology in graphics and text. This hands-on course uses PageMaker extensively, with interactive demonstrations of other software. A course of great value whether you publish a club newsletter, restaurant menu or financial statements. Bring a 5/4 inch double-sided/double-density or high density diskette to class.
Bruce Frenner, M.A.
Section 301: Saturdays, September 14 and 21
Section 302: Saturdays, November 16 and 23
Both Sections:
9 a.m.-4:30 p.m. 2 all-day sessions.
University Computing Center 142. $160.
NEW ROLES. FRESH CHOICES.
CERTIFICATE IN BUSINESS AND TECHNOLOGY LEADERSHIP

In this age of complex market segmentation and powerful international competition, business leadership has become a multidimensional task. Management in the '90s requires the right combination of people skills, marketing savvy and an understanding of technological tools. This important Certificate was created to cultivate the business leadership needed for long-term success in a changing world.

The Certificate in Business and Technology Leadership links management issues with valuable computer and technology-related concepts, and adds a component focusing on business excellence in a changing environment. Participants are expected to share a commitment to progressive leadership and creative insight.

Who Should Attend. Executive innovators with the spirit of entrepreneurship. This Certificate program is of particular value to businesspeople who wish to expand their expertise into technical business areas, and those working in technology-related fields who need to learn broader managerial concepts. But value is not limited to these groups. Anyone with a desire to learn about this unique business management area will find the courses important.

Getting Started. No formal application or entrance examination is required for this program, but participants must complete the Registration for Certificate and Noncredit courses on page 53. Competency-based evaluations are utilized to acknowledge course achievement. A transcript of your progress or Certificate of Completion is available without fee from Continuing Education.

Refunds are granted any time before a course begins, none later.

Getting Finished. The Certificate in Business and Technology Leadership requires successful completion of a total of eight courses in two separate modules:

I. Technical Executive Module — Complete four courses in this module for Certificate requirements (expected course offering in parentheses).
   - Technical Leadership (Fall 1991)
   - Technical Direction (Spring 1992)
   - Business Computer Applications (Fall 1991)
   - Progressive Corporate Leadership (Spring 1992)
   - Finance 2000 (Summer 1992)
   - Marketing 2000 (Fall 1991)
   - Advanced Marketing Strategies (Spring 1992)

II. Strategic Business Module — Complete all four courses in this module for Certificate requirements
   - The Science of Innovation and Change (Fall 1991)
   - International/Global Perspectives in Business Competition (Spring 1992)
   - Advanced Financial Concepts (Summer 1992)
   - Executive Leadership and Strategy (Fall 1991)

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Technical Executive Module

NC B 501
Technical Leadership

Examine the special leadership skills required of managers working in technical environments. Managers in these special environments are challenged by the complexities of high technology product development, the pace of technological change and personnel management. Acquire the strong leadership skills needed to avert obstacles and thrive in these innovative environments.

Jerry Bellas and Glenn Edens
Section 300: Tuesdays, September 17-October 15, 7-9:30 p.m.
5 sessions. Business 211. $185.

NC B 502
Business Computer Applications

Businesses rely on a range of computer functions, such as word processing, data base management and spreadsheet production. Have you maximized their applications to meet your business needs? Course topics include: matching computer technology to problem solving, acquisition of mini and mainframe computer technology and selection of communications software appropriate to your business.

Dennis Taylor, M.S.
Section 300: Thursdays, November 14-December 19, 6:30-9 p.m.
No class session November 28. 5 sessions.
Computing Center 123. $185.

NC B 503
Marketing 2000

Introduction to current marketing concepts as they apply to selling products of innovation and technology to governments, consumers and businesses. Topics include marketing overview, market assessment techniques and the development of a specific marketing plan that relates to your product and industry. Special emphasis is placed on case studies and participant needs.

George S. Low, M.B.A.
Section 300: Thursdays, October 3-31, 7-9:30 p.m.
(possible make-up date November 7). 5 sessions. Business 216. $165.

Strategic Business Module

NC B 601
The Science of Innovation and Change

Study of nongridded approaches to the changing nature of the business environment can help you turn complexity into successful business practices. Understanding change and adaptation as a constant process can be a critical tool for working leadership.

Bob Calcaterra, D.S.c.
Section 300: Tuesdays, October 22-November 19, 7-9:30 p.m. 5 sessions. Business 218. $185.

NC B 604
Executive Leadership and Strategy

Successful leaders understand the magnitude of the charter they hold: to navigate in turbulent waters, plotting a course that assures survival, growth and profit. This course focuses on critical success factors for executive leadership. Material is geared to the concerns and the issues of top executives of organizations in the public and private sectors.

George Crochet, M.S.
Section 300: Wednesdays, October 9-November 6, 7-9 p.m. 5 sessions. Business 261. $165.
THE EYES HAVE IT. BUSINESS BY DESIGN.

COMMERCIAL DESIGN

In a world inundated with information, graphic and environmental design becomes an increasingly valuable marketing communications tool. Good design gets attention, opens doors, guides perception. These courses address every aspect of the field: graphic and environmental design, publishing and illustration, advertising, cartooning and more. With information on career opportunities and strategies for approaching the job market.

Certificate in Commercial Design

Whether you’re an experienced professional or a newcomer, the Certificate in Commercial Design can be a career booster. This sequential program of short, intensive courses can fit into the busiest schedule. There are three parts to the program:

A. Required Courses:
   • The Commercial Artist: Design, Layout and Paste-up
   • Commercial Art II
   • Professional Illustration Techniques
   • The Artist Goes to Market

B. Four elective courses, to introduce you to design trends.

C. You must complete your own fully developed professional portfolio and have it professionally reviewed. Call 492-5148 to schedule your portfolio review.

After certification, many designers continue to take classes, to update skills. You will be awarded a Performance Certificate for successfully completing each class. A transcript of your record is always available, free of charge. Tuition varies according to the materials used and the length of time of each class. Tuition is listed at the end of each course description.

Course enrollments are limited and advance registration is required. Because commercial design classes are scheduled as intensive two- or three-session courses, no refunds can be given once the course has started.

Bring to class: a pencil, a ruler, a fine line pen, X-acto knife, note paper, tracing paper, a 9" x 12" pad of bristol board — plate finish, a 4 ounce can of rubber cement, and a non-photo blue pencil. Other materials and workbooks are provided. If possible, you’ll also find it useful to bring work samples from your portfolio.

Deidre Adams (left) listens as instructor Jill Thayer Barton shows a sample of finished work. Students appreciate the real-world perspective of teachers like Jill who have made their mark in the national design community.
Commercial Art

**CCD 210 The Commercial Artist I: Design, Layout, Paste-up**
For beginners, an introduction to important commercial art concepts and applied techniques, stressing how to break into the profession. We cover rough composition, layout, type selection, production of camera-ready art, choice of materials and basic illustration processes used in marketing and publishing. We emphasize development of finished commercial-quality work, portfolio presentation, and client interviews.
Jill Barton
Section 300: Saturday and Sunday, October 5 and 6, 9 a.m.-5 p.m.
2 all-day sessions. Geology 114. $135.

**CCD 310 Commercial Art II**
This course builds advanced skills in layout, design, paste-up, logo development, and corporate identity. Intensive workshop activities will focus on developing entire professional-level identity packages, including corporate collateral pieces. Discussions also cover understanding current printing processes and details for making valuable camera-ready art. It is recommended that Commercial Artist I be completed before enrollment in this course, or that students demonstrate more advanced commercial art skills.
Jill Barton
Section 300: Saturday and Sunday, October 12 and 13, 9 a.m.-5 p.m.
2 sessions. Geology 114. $135.

Calligraphy

**CCD 220 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 Barton
Section 300: Monday, Tuesday, Wednesday, October 7, 8 and 9, 5:30-10 p.m.
3 sessions. Helems 229. $135.

Computer Graphic courses are accepted as elective courses in the Commercial Design Program. See page 25.

Illustration

**CCD 290 The Business of Greeting Cards: Writing, Drawing and Selling**
A unique two-day program taught by a successful artist/entrepreneur covers every vital aspect. Writing styles: short two-liners, cute humor, poetic and humorous verse, teaser ideas. Art styles: line, neon, black border, and design psychology. Business strategies: selling your work, starting a company, licensing and selling rights, manufacturing and distribution. Take home finished concepts to start your portfolio.
Taylor Barnes
Section 300: Thursday and Friday, November 7 and 8, 5:30-10 p.m.
2 sessions. Engineering Center CR 0-38. $95.

**CCD 250 Children’s Book Illustration Techniques**
An introduction to current techniques in the real world of publishing. We cover black and white camera-ready technique, halftones, color separation, registration and overlay, color gouache technique, color screen, Martin's dyes, and litho crayon/textured board surface. Learn a visualization technique to extract art concepts from a written text. Discussion covers finding your style, character development, rough and final presentation, and marketing your work. Assignments include completion of a ‘rough’ book and a finished plate, and camera-ready art separation for presentation to a publisher.
Taylor Barnes
Section 300: Saturday and Sunday, November 9 and 10, 9 a.m.-5 p.m.
Engineering Center CR 0-38. $135.

**CCD 330 Professional Illustration Techniques**
The beginning illustrator seeking to enter the world of commercial illustration must be aware of specific market needs. This program introduces the illustrator to contemporary illustration techniques for assignments with advertising agencies, book illustration firms, magazines, and newspapers. Drawing lab, lecture, demonstration, and workshop cover scratchboard processes, color technique, air brush procedures, and photo retouching. Attendees complete final drawing samples for presentation to various markets.
Eric Teitelbaum
Section 300: Saturday and Sunday, December 7 and 8, 9 a.m.-5 p.m.
2 all-day sessions. Geology 114. $135.

Copywriting

**CCD 340 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. This workshop program is a must for anyone seeking to work in public relations, advertising, sales promotion, small business activities, or who must generate persuasive copy for the marketplace. Skill development exercises cover the creative techniques of producing “written messages” that get results. Activities will include headline and body assignments, creative stimulation, marketing effectiveness, creative team problem solving, and examining problem solving activities during campaign development.
Michelle Martino
Section 300: Saturday and Sunday, November 16 and 17, 9 a.m.-5 p.m.
2 all-day sessions. Geology 114. $135.

Marketing

**CCD 230 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
Section 300: Thursday and Friday, December 5 and 6, 5:30-10 p.m.
2 sessions. Geology 114. $95.
ISSUES, IDEAS & INSIGHTS.
NONCREDIT COURSES

Around 400 B.C., Aristotle observed that "To learn is a natural pleasure, not confined to philosophers, but common to all men." These courses provide exciting opportunities to indulge an interest in learning — a habit that often leads to important insights and personal gain: a burst of creative energy. Perhaps a new career direction. Our students routinely discover keen interests and untapped talents.

Most classes have limited enrollment. Early registration assures your place in class.


Tuition and classroom locations are listed at the end of each course description. Full refunds are given on request before the second class meeting for noncredit courses that meet five times or more; for courses that meet four times or less, requests must be made before the first class meeting. Requests for exceptions should be made in writing to the Director of Noncredit Programs. To register call 492-5148 or 1-800-331-2601.

Amateur mineralogist Bob Barrell (right) shows Pete Palmer some colorful mineral specimens during Dr. Palmer's popular geology seminar, Earth Appreciation: The Foothills and Beyond.

Jean Purslow savors the view from Varsity Pond as she reflects back on 14 years with Continuing Education. As supervisor of the Registration office, she has helped thousands of students find answers, untangle schedules and create options. The next step in her journey is retirement and a new life in El Paso with her husband, Gordon. With time to write, travel, relax, and indulge her own interest in lifelong learning. Best wishes, Jean—El Paso's gain is CU's loss.
## NONCREDIT COURSES, FALL 1991

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Architecture and Landscape

NCAL 002
Colorado Landscape: Plants and Design
Practical help for homeowners interested in preparing their own landscape design. Learn the basics of successful growing in Colorado.
Andrew Mead, B.S.
Section 301: Saturday, October 19, 9 a.m. - 3 p.m.
1 session: Geology 127. $28.
Section 302: Saturday, October 26, 9 a.m. - 3 p.m.
1 session: Geology 127. $28.

NCAL 005
Xeriscape Landscaping: Low Water, Low Maintenance Landscapes for Colorado
Xeriscape landscaping involves selecting the right plants for the location to minimize water and maintenance. Careful selection and good planting techniques can produce a lush yard. Plant lists and useful handouts provided.
Andrew Mead, B.S.
Section 300: Tuesday, September 10, 6-9 p.m.
1 session: UMC 235. $15.

NCAL 011
Four Season Colorado Landscape
The goal is a beautiful yard, all year long. We discuss landscape features and specific plants as we investigate four-season gardening in Colorado.
Andrew Mead, B.S.
Section 300: Wednesday, September 18, 6-9 p.m.
1 session: Hellem's 81. $15.

NCAL 028
How to Design or Remodel a House with an Architect
We examine the design process, issues to be faced, and the construction process that architects and clients face. We begin with a history of the American house and move on to cover: physical characteristics of the Front Range and architectural responses to sun, wind, snow and dryness, how to evaluate a building site, zoning and code. Also — generating a building program, realistic budgets, expectations and the construction process.
Jeffrey W. Limerick, M.Arch.
Section 300: Tuesdays, September 17-October 15, 7-9 p.m.
5 sessions: Hellem's 237. $50.

Business

NC B 003
Entrepreneurism — Are You Ready?
What does it take to be an entrepreneur? Businesses fail for many reasons: undercapitalization, lack of preparation, failure to test the market, lack of financial control and doing too much too soon. This class gives you a smart start. We cover business plans, budgeting, cash flow and other essential aspects, including personal financial planning.
Alvaro Ziedens, M.S.S.
Section 300: Wednesday, September 25-October 16, 6:30-9 p.m.
4 sessions. Duane Physics G116. $50.

NC B 004
Financial Planning for Women
Financial security creates peace of mind, heightened self-esteem, retirement with dignity and personal independence. Whether you are married, single, divorced, or widowed, it is important to have a personal financial plan. Learn how to set specific, measurable goals and implement a systematic process to ensure your financial good health. Course materials include a complete personal financial planning packet.
Coral L. Randolph, M.B.A.
Section 300: Tuesdays, October 1-22, 6-8:30 p.m.
4 sessions. Duane Physics G025. $50.

NC B 007
Writing Business Plans
Learn to write a plan that clarifies financial, marketing and operational plans and becomes a valuable guide in running a profitable business. We cover sales and cost projections, cash flow, marketing research and facilities management. Emphasis is on a formal business plan for lenders / investors and as a management tool.
Donald A. Kanicki, C.P.A., M.B.A.
Section 300: Tuesday, October 22-29, 6-8:30 p.m.
2 sessions. Duane Physics G027. $25.

Stephanie Heath finds that Continuing Ed classes have helped her get perspective on a new career direction. She works at United Bank and would like to go back to school to earn an MBA.

NC B 009
How to Plan, Promote and Profit from Your Seminar
We cover aspects from organization to presentation including pricing, budgeting, logistics and marketing. On completion, you will be able to design your own seminar, promote it to an appropriate market and present it efficiently and profitably.
Chris Loew, M.B.A.
Section 300: Wednesday, September 18-October 2, 6:30-8:30 p.m.
3 sessions. Duane Physics G025. $30.

NC B 011
Financial Planning for Couples
The class will explore the difficulties of planning for two. Extensive materials help you understand your needs and the possibilities to achieve financial security.
Laurie Hyland, C.F.P.
Section 300: Wednesday, October 9-30, 7-9 p.m.

NC B 012
Understanding and Using Financial Statements
When you look at your company's financial statements, do you feel confused, or informed? Learn to use accounting information to manage your business and increase your profits. Learn basic financial ratios to help you spot trends. We also cover income and cash projections and working capital management.
Donald Kanicki, C.P.A., M.B.A.
Section 300: Tuesdays, November 12-19, 6-8:30 p.m.
2 sessions. Duane Physics G025. $25.
Communications

NC C 006
Storytelling: The Oral Tradition
The oral tradition has preserved the history and myth of communities. Continuing the tradition of creative communication skills within a framework provides a means to share stories. Topics to be discussed include: Myths and Folktales, Personal Myth, Personal Stories with Movement and Dream Stories.
Kay Negash, M.A.
Section 300: Tuesdays, October 8–November 5, 6–8:30 p.m. 5 sessions. Hellemis 251. $63.

NC C 007
Improving Your Listening and Communication Skills
“THat’s not what I said;” is a thought we all have at times. Learn and practice techniques for clear communication, including nonverbal and Neurolinguistic Programming skills. Assess the auditory part of your communication style and accept half the responsibility in the communication process.
Sharon Hoery, B.A.
Section 300: Tuesdays, September 17–October 15, 7–9 p.m. 5 sessions. Hellemis 271. $90.

NC C 008
American Sign Language Seminar
This seminar is an introduction to American Sign Language and prepares you for ASL classes through games, activities and discussion of the language and cultures of the Deaf community.
Karen Park-Riggs, Deaf ASL Instructor
Section 300: Saturday, October 19, 9 a.m.–12 p.m. 1 session. Economics 16. $20.

Fine Arts

NCFA 001
Basic Photography
Learn to know and love your 35mm SLR camera. We cover mechanical functions, lenses and film, accessories, proper exposure (even nighttime and fireworks), good composition and portraiture techniques. No lab work. One field trip. Slides, lecture and discussion with helpful handouts. Optional text is Black and White Photography, Henry Horenstein.
Lynn Lickteig, B.F.A.
Section 300: Mondays, September 16–November 4, 7–9 p.m. 8 sessions. Environmental Design 120. $80.

NCFA 002
Creative Photography Workshop
Learn about amazing new films like T. Max and Ektar, filters, telephoto and wide-angle lens use, electronic flash, macro shots, professional tips, and composition. Darkness work covers B&W print making, color enlargements from negatives, and Cibachrome printing from color slides.
Course includes two 2-hour classroom periods; two 3-hour darkroom classes; three weeks darkroom work. Cost of chemicals is included. Bring your own camera, film and paper to the first class.
Don Oberbeck, Professional Photographer.
Section 300: Thursdays, September 12–October 31, 7:30–9:30 p.m. 8 sessions. Ketchum 234. $115.

NCFA 005
Life Drawing
Using exercises in learning to see and respond, drawing the figures will become a skill that belongs to you. We progress from gestural to contour line drawings, using surface shading and modeling. Bring soft compressed charcoal, eraser, 18" x 24" newsprint pad, 2B pencil, black india ink, a #4 bamboo brush, charcoal pencil, white and brown conte crayon, pen holder and point, soft pastels (optional). Tuition includes fees for a model, present at every session.
Barbara Preskorn, M.F.A.
Section 300: Wednesdays, September 25–November 13, 7–9 p.m. 8 sessions. Fine Arts 209. $90.

NCFA 009
Watercolor Workshop
Learn basic techniques to capture the splendor of the turning aspen. Meet at the Boulder Public Library and car pool from there. Dress appropriately and bring lunch. Materials list at the Continuing Education office.
Barbara Cox, M.A.
Section 300: Saturday, September 21, 10 a.m.–4 p.m. 1 session. Boulder Public Library. $30.

NCFA 011
Sculpture — Stonecarving
Explore a fascinating form of self-expression. We cover basic carving techniques, principles of the third dimension, texture and surface processes and stone types. One-on-one consultation and discussion. Also, a slide show on the history of stone sculpture and a discussion of stone types.
Barbara Cox, M.A.
Section 300: Wednesdays, September 25–November 20, 7–9 p.m. 9 sessions. Fine Arts 202. $100.

Nina Frauenfelder is taking a class that will help her pursue a whole new career direction. A former travel agent, she has just been accepted into CU’s Central and East European Studies program.
NCFA 012  
Chinese Painting  
No prerequisite. Come learn basic disciplined techniques of Chinese Painting. Possible applications include ceramic decoration, batik and much more. Purchase materials at first class meeting or on your own: an oriental paint brush (medium), a tube of oriental ink paste, newsprint, water containers, paper towels.  
Janette Lenschow, M.F.A.  
Section 300: Mondays, September 16- November 4, 4-7 p.m.  
8 sessions. Geology 114. $80.

NCFA 015  
Woodcarving Sculpture  
Beginning and intermediate students carve in the round and explore the first steps of blocking out a form. Use of a clay model facilitates the learning process. Carving instruction includes discussion of various wood types, finishing techniques and a slide show of wood sculptures.  
Barbara Cox, M.A.  
Section 300: Wednesdays, September 25- November 20, 5-7 p.m.  
9 sessions. Fine Arts C102. $100.

NCFA 020  
Introduction to Drawing  
Study basic concepts, line, shape, volume, texture and composition to learn skills of observation and self-expression that teach you the art of drawing.  
Michael Mitchell, M.F.A.  
Section 300: Fridays, September 20- October 16, 6-9 p.m.  
5 sessions. Fine Arts C175. $85.

NCFA 028  
Introduction to Painting  
Working in acrylic, we cover the basics of color, composition, techniques and materials, exploring a variety of subjects. Bring to the first class: acrylic tube paints, 2-3 small brushes sturdily enough to mix paint, a palette, and a few (8½ x 11 or larger) sheets of heavy white watercolor paper. Later we will use stretched canvas, canvas board or Masonite.  
Michael Mitchell, M.F.A.  
Section 300: Fridays, October 25- November 22, 6-9 p.m. 5 sessions. Fine Arts C105. $85.

NCFA 128  
Seminar: Papermaking  
An introduction to sheet forming and casting in handmade paper. Students will construct individual clay/plaster molds for low relief cast sculptural work. Paper will be formed for use in journals, books, or as an art work. Bring lunch. Supply list available from Continuing Education.  
Susan Planalp, M.F.A.  
Section 300: Saturday, November 9, 10 a.m.-4 p.m.  
1 session. Fine Arts C102. $55.

NCFA 129  
Romanticism to Post Modernism: Exploring the Developments of Western Art Over Two Centuries  
A survey of sculpture, painting, architecture and photography from the late 18th century to the present. Romanticism, Impressionism, Expressionism and all the other "isms" are covered as we take a close look at the historical and social context of movements in art, literature and philosophy and associated trends in popular culture.  
Keri Fendani, B.A.  
Section 300: Wednesdays, October 2- December 11, 6:30-8:30 p.m.  
10 sessions. Economics 2. $100.

NCFA 130  
History of Animation  
Animated film from the early works of Emilie Cohl to contemporary animation and the unlimited possibilities of computer graphics are surveyed. We will view many animated films.  
Albert Miller, B.A.  
Section 300: Tuesdays, October 1-November 19, 6:30-8:30 p.m. 8 sessions. Hellers 191. $80.

NCFA 131  
Sculpture — Advanced Stonescarving  
An opportunity for advanced students to define their sculptural interest and develop stonescarving skills. Instruction focuses on sculptural forms, architectural designs and relationship to light and space.  
Barbara Cox, M.A.  
Section 300: Thursdays, September 26- November 21, 7-9 p.m.  
9 sessions. Fine Arts C102. $100.

Foreign Languages

NCFL 100  
Beginning Conversational French  
Designed for beginners this class will build conversational skills using practical vocabulary. Language lab tapes demystify pronunciation. Text announced at first class.  
Nadia Turk, Ph.D.  
Section 301: Mondays, September 16- November 18, 7-9 p.m.  
Section 302: Fridays, September 20- November 22, 7-9 p.m.  
Both Sections: 10 sessions. Helmers 237. $100.

NCFL 200  
Intermediate Conversational French  
Students should be able to use the present tense before taking this class. Increased vocabulary and speaking skills are stressed. Text to be announced at first class.  
Nadia Turk, Ph.D.  
Section 300: Wednesdays, September 18- November 20, 7-9 p.m.  
10 sessions. Helmers 237. $100.

NCFL 101  
Beginning Conversational German  
For students with little or no preliminary knowledge. We emphasize speaking skills, practical vocabulary. Text to be announced at first class.  
Simone Schellen, M.A.  
Section 300: Tuesdays, September 17- November 19, 7-9 p.m.  
10 sessions. Helmers 245. $100.

NCFL 201  
Intermediate Conversational and Written German  
Conversation stressed building on previous experience. Students should be able to use the present tense before taking this class. Some reading and writing. Text is JM Kontakt at the University Bookstore or Colorado Bookstore.  
Stephanie Fisher, M.A.  
Section 300: Thursdays, September 12- November 14, 7-9 p.m.  
10 sessions. Ketchum 206. $100.

NCFL 102  
Beginning Conversational Italian  
Designed for beginners, we will stress conversation and useful vocabulary and explore Italian culture. Required text is Buongioro Italia by Cremona, available at the University Bookstore.  
Theresa Tiri-Santona, M.A.  
Section 300: Mondays, September 16- November 18, 6:30-8:30 p.m.  
10 sessions. Education 132. $100.

NCFL 203  
Intermediate Conversational Italian  
For students who have taken Beginning Italian and would like to learn more vocabulary, tenses and build speaking skills. Required text is Buongioro Italia by Cremona, available at the University Bookstore.  
Theresa Tiri-Santona, M.A.  
Section 300: Wednesdays, September 18- November 20, 6:30-8:30 p.m.  
10 sessions. Education 132. $100.

NCFL 303  
Advanced Conversational Italian  
An excellent opportunity to develop and polish conversational skills. Prerequisite is Beginning and Intermediate Italian, or the equivalent.  
Theresa Tiri-Santona, M.A.  
Section 300: Thursdays, September 19- November 21, 6:30-8:30 p.m.  
10 sessions. Education 132. $100.

NCFL 103  
Beginning Conversational Spanish  
Basic but lively conversational Spanish for travelers. We stress practical vocabulary.  
Section 301: Elizabeth Medina, Ph.D.  
Tuesdays, September 17- November 19, 7-9 p.m. 10 sessions. Helmers 247. $100.  
Section 302: Beatrice Calvo, M.A.  
Wednesdays, September 18- November 20, 7-9 p.m. 10 sessions. Helmers 245. $100.
NCFL 202
Intermediate Conversational Spanish
An opportunity to build vocabulary and conversational ability and address cultural and social aspects. Prerequisite: Beginning Spanish or equivalent.
Elizabeth Medina, Ph.D.
Section 300: Thursdays, September 19-November 21, 7-9 p.m.
10 sessions. Helms 245. $100.

NCFL 104
Beginning Conversational and Written Japanese
This class is for students with no knowledge of Japanese. We stress polite, practical and colloquial Japanese in order to build a foundation of survival skills and understand how the language works. Reading simple signs and texts is introduced. Required text: Communicating in Japanese at the University Bookstore or Colorado Bookstore.
Douglas H. Gordon, M.A.
Section 300: Fridays, September 20-November 22, 6-8 p.m.
10 sessions. Economics 119. $100.

NCFL 204
Intermediate Conversational and Written Japanese
A second-level course that continues the development of oral and written skills. Prerequisite is a strong reading knowledge of both Katakana and Hiragana. Required text: Communicating in Japanese at the University Bookstore or Colorado Bookstore.
Douglas H. Gordon, M.A.
Section 300: Fridays, September 20-November 22, 8-10 p.m.
10 sessions. Economics 119. $100.

NCFL 304
Reading Technical and Scientific Japanese
This course is designed to teach written technical and scientific Japanese over the two-course sequence. The class focuses on the reading system, grammar, and scientific vocabulary needed for technical reading. Using the text and supplemental materials the student will learn the important elements needed for reading and comprehending technical Japanese. This course does not provide the instruction necessary to purchase a newspaper, order a meal, or travel in Japan. No prior knowledge of Japanese is necessary. Textbook to be announced at first class.
Douglas H. Gordon, M.A.
Section 300: Mondays, September 9-December 16, 7:30-9:30 p.m. 14 sessions.
No class November 25. Economics 119. $160.

NCFL 105
Beginning Conversational and Written Russian
For students with little or no knowledge of Russian. Conversational skills are stressed, but students will learn the Cyrillic alphabet and to read and write simple sentences. We cover grammar essentials, useful vocabulary and cultural aspects. From the first session, students will learn to use phrases, ask questions and master correct pronunciation.
Charlotte Katz, M.A.
Section 300: Tuesdays, September 17-November 19, 6:30-8:30 p.m.
10 sessions. Geology 127. $100.

NCFL 205
Intermediate Russian
A second-level course designed to continue development of oral and written skills. Prerequisite is Beginning Russian or the equivalent.
Charlotte Katz, M.A.
Section 300: Thursdays, September 19-November 21, 6:30-8:30 p.m.
10 sessions. Geology 127. $100.

History

NC H 003
New Perspectives on the American West
Western history revisited, through the experiences of women, Hispanics and Indians. We also will consider the role of natural resource development and land usage. Selected readings explore recent treatment of these issues and the concept of the "New West."
Anne Gilbert, B.A.
Section 300: Tuesdays, October 8-November 5, 7-9 p.m. 5 sessions. Ketchum 33. $30.

NC H 004
North American Indians Before Columbus
The emergence and migrations of early man, based on known sites and artifacts in North America. We will cover regional development of Indian cultures throughout North America, including Meso-America. Slides and artifacts stimulate discussion.
Bill Hozie, M.A.
Section 300: Wednesdays, September 25-November 13, 6-7:30 p.m.
8 sessions. Ketchum 35. $60.

NC H 005
North American Indians
After Columbus
Discover how Indian cultures reacted to the arrival of the white man and the consequences of contact into the 20th century.
Bill Hozie, M.A.
Section 300: Wednesdays, September 25-November 13, 7:30-9 p.m.
8 sessions. Ketchum 35. $60.

Investments

NC I 001
Investing for Income
How much income can you make from investments? Learn to evaluate income-producing investments, from CDs through government and tax-free bonds, based on your personal tolerance for risk and need for liquidity.
Arnold Hart, M.A.
Section 300: Tuesdays, November 12-19, 6:30-8:30 p.m. 2 sessions.
Duane Physics G116. $20.

NC I 005
Investing in Art and Antiques
Enter the world of galleries, dealers, antique furniture, collectibles, paintings and prints. Learn what gives a piece value. How to build a collection. Terminology. Questions to ask. Traps to avoid. How to protect your art and your investment.
Ruth Linton, Consultant in Contemporary Art.
Section 300: Tuesdays, October 1-22, 7-9 p.m.
4 sessions. Education 136. $40.

NC I 007
Advanced Investment Strategies
Learn how world economics affects your investments. We examine actual fund portfolios to show how assets are allocated. Learn how to build your own portfolio using the valuative rating system.
Arnold Hart, M.A.
Section 300: Tuesdays, October 15-November 6, 6:30-8:30 p.m.

NC I 008
Basic Investing
Complete, understandable explanations for beginners covering terminology, products and basic strategies. Learn how to take concrete steps toward planning your financial future in today's environment. Suggested text is How to Buy Stocks and Bonds by Louis Engle, at the University Bookstore.
Mary Wright, B.A.
Section 300: Tuesdays, September 17-October 8, 6:30-8:30 p.m.
4 sessions. Muenzinger E417. $40.
NC L 010
Economics for Investors
Tired of the simplistic economics in Forbes and Business Week? Using the in-depth analysis of the Bank Credit Analyst you will learn how to arrive at a consistent and coherent world view to guide your investments.
Arnold Hart, M.A.
Section 300: Thursdays, November 14-21, 6:30-8:30 p.m. 2 sessions. Duane Physics G116. $20.

Lifestyles

NC L 002
Eating As If Your Life Depended On It
What you eat affects your immediate energy level and mood and your long-term risk of developing heart disease, cancer, osteoporosis, high blood pressure and other serious diseases. Come learn how to take command of your diet to meet your nutritional needs.
Peggy Phillips, M.Ed.
Section 300: Saturday, September 28, 10 a.m.-4 p.m. 1 session. UMC 157A. $28.

NC L 030
Nutrition for a Healthy Body and Mind
Focusing on diet and nutrition, we will explore the workings of the immune system and what can be done to improve the outlook of patients with arthritis, cancer, lupus and other chronic diseases. We also look at moods and the role of sugar, food insensitivities and other issues, focusing on positive action you can take to influence your health.
Peggy Phillips, M.Ed.
Section 300: Saturday, October 19, 10 a.m.-4 p.m. 1 session. UMC 230. $28.

NC L 009
Biofeedback Stress Management
Learn where stress begins on a personal, biological and psycho-social level. Identify causes and symptoms and learn how to cope. We teach self-regulation skills through biofeedback: as a means of combating headaches, teeth grinding and other nonproductive responses. Required text is Relaxation & Stress Reduction at the UMC Bookstore or Colorado Bookstore.
Toby Link, Ph.D.
Section 300: Mondays, September 16-October 14, 7-9 p.m. 5 sessions. Economics 2. $50.

NC L 033
Food Allergy — Fact vs. Fantasy
A critical appraisal of scientific findings concerning food allergies. We review the immunologic mechanisms involved in producing allergies and discuss medical tests that are valid and useful. Proper analysis of personal observations is also considered. The good news is the true science in this area is at least as exciting and entertaining as the hype you see in the headlines.
S. Allan Bock, M.D.
Section 300: Saturday, October 26, 9 a.m.-1 p.m. 1 session. Economics 205. $20.

NC L 014
Psychology of Intimate Relationships
Learn how relationships work and why people repeat similar patterns. We cover the stages of intimacy, the function of power struggles and the influence of childhood experiences. We reflect on love and loving, expectations and endings, and how to evaluate a partner or potential partner.
Neil Rosenthal, Licensed Marriage and Family Therapist.
Section 300: Saturday, September 28, 10 a.m.-5 p.m. 1 session. UMC 157B. $33.

NC L 024
Changing the Patterns in Your Relationships
This is a hands-on, experiential workshop for people who want a clearer understanding of patterns in their adult relationships which may be self-defeating. We cover: healing the wounded child within; healing the wounds of a previous relationship; capacity for intimacy; how to keep yourself healthy and fulfilled; what you might do to improve an existing relationship.
Neil Rosenthal, Licensed Marriage and Family Therapist.
Section 300: Saturday, October 19, 10 a.m.-5 p.m. 1 session. UMC 235. $33.

NC L 029
Intimate Companions: Towards Creating Healthier & Happier Relationships
What keeps you from achieving the intimate relationship you seek? In a relaxed and supportive atmosphere, we address: conflicts and differences; trust and betrayal issues; relationships as mirrors; blaming, the early warning signs of divorce; healing the wounded relationship; healing the wounded heart; evaluating a partner or potential partner; and enriching your intimate relationships.
Neil Rosenthal, Licensed Marriage and Family Therapist.
Section 300: Saturday, November 9, 10 a.m.-5 p.m. 1 session. UMC 235. $33.

NC L 032
Intimacy: Opening the Heart
Most of us want to love and be loved. What stands in the way? We learn why some people stay in relationships that aren’t good for them. We explore love, co-dependency; what we learn about ourselves through relationships, forgiveness, and what healthy families are like. A hands-on workshop for people who want to heal old wounds and cultivate more intimacy in their lives.
Neil Rosenthal, Licensed Marriage and Family Therapist.
Section 300: Saturday, December 7, 10 a.m.-5 p.m. 1 session. UMC 235. $33.

NC L 021
Speed Reading
Good news. Your mature thinking skills can help you become a more effective and efficient reader. You will learn helpful techniques for all kinds of materials, and ways to better remember what you read. Individual learning styles are also discussed.
Liane Brouillette, M.S.
Section 300: Mondays, September 16-October 21, 7-9 p.m. 6 sessions. Hellem's 263. $60.
Science

NCSO 004
Boulder's Common Backyard Birds and How to Attract Them
Learn how to attract different kinds of birds to your backyard. We cover types of feeders, nesting boxes, sanitary precautions, native plants that provide food and cover. Slides and handouts.
Tina Jones, Naturalist/Biologist
Section 300: Thursdays, September 26-October 3, 6-8:30 pm.
2 sessions. Business 201. $25.

NCSO 013
Bugling, Butting, and How Do You Pronounce Ptarmigan?
We study the behavior of elk, bighorn sheep, beaver and ptarmigan, pointing out advantageous times and places to observe them. An excellent course for aspiring photographers and naturalists.
Tina Jones, Naturalist/Biologist
Section 300: Monday, November 4, 6-8:30 pm.

NCSO 014
Earth Appreciation: The Foothills and Beyond
The geology of a region holds the secrets of its past. Learn to decipher the geologic clues. With one local Saturday field trip to supplement three evening lectures, you will learn the geologic history of the area. Basic skills and concepts can then be applied to other areas, to help you be a more knowledgeable traveler. No scientific background is necessary; bring your curiosity.
A.R. (Pete) Palmer, Ph.D.
Section 300: Wednesdays, November 6-20, 7-9 p.m., and Saturday, November 16 (time and place to be arranged). 4 sessions.
Economics 205. $70.

NCSO 015
Knowledge of Science: How We Know What We Know
We say we know things as "facts" about our world, but how do we know? Explore science using observation, discussion, slides and diagrams to prove how knowledge is acquired. Extensive handouts.
Chip McMillan, Ed.D.
Section 300: Thursdays, October 3-November 7, 6:30-8:30 pm.
6 sessions. Geology 114. $60.

Testing

NCT 301
Preparing for the Graduate Record Exam (GRE)
Analyze and review basic test skills, reviewing relevant verbal, math and analytical problems. The course is structured to lead up to the exam date. Students need texts at the first class — call for textbook information. Students register separately for the GRE examination.
Rae Willis, Ph.D.
Section 301: Tuesdays and Thursdays, September 3-26, 6:30-9 p.m.
Section 302: Tuesdays and Thursdays, October 29-November 21, 6:30-9 p.m.
Both Sections: 8 sessions. Muenzinger E431. $150.

NCT 490
Preparing for the Law School Admission Test (LSAT)
We address strategies for each section of the LSAT: writing sample, reading comprehension, logical reasoning, and analytical reasoning. Special focus is placed on demystifying the "logic games." Other sections deal with general test-taking strategies and how to conquer test anxiety. Students need texts at the first class — call for textbook information. Students register separately for the LSAT examination.
Melissa Mahaney, J.D.
Section 301: Saturdays, September 14, 21, 28, 9 a.m.-2 p.m.
Section 302: Saturdays, November 16, 23, 30, 9 a.m.-2 p.m.
Both Sections: 6 sessions.
University Computing Center 123. $175.

Theatre and Music

NCTH 002
Theatre History for Modern Audiences
This is no dry survey! Students are introduced to the material of theatrical history, touching on dramatic literature, noted practitioners, production styles and social relevance. Cross cultural and minority theatre is addressed. A theatre history and several plays are used as texts.
Barbara Matson, M.F.A.
Section 300: Tuesdays, September 24-November 26, 7-9 p.m.
10 sessions. Muenzinger D439. $100.

NCTH 003
Music of the Global Village
Are your musical tastes increasingly exotic? Are you intrigued by Japanese, Arabic, Brazilian and other influences? Become a part of the rich diversity of human music-making in a context of appreciation for the incredible range of cultures represented.
Barbara Canon, M.A.
Section 300: Mondays, October 7-November 4, 7-9 p.m.
5 sessions. Ketchum 118. $65.
NCW 025
Literature of the Laureates
We read the names of Nobel Prize winners in the paper, but how many of us have read their works? Join us in reading and discussing four works in translation. We meet alternate weeks to allow time to read: *Love in the Times of cholera* by Gabriel Marquez, *The Master of Go* by Yasinair Kavahita; *Palace Walk* by Naguib Mahfouz, and *A Friend of Kafka* by Isaac Singer.
Susan Gerson, M.A.
Section 300: Thursdays, September 26, October 10 and 24, November 7, 7-9 p.m.
4 sessions. Education 134. $40.

NCW 026
Literature of Latin America
We read and discuss three novels, exploring each one as a work of art and comparing it to other Latin American works. We meet every other week to allow sufficient time to read *Love in the Time of Cholera* by Gabriel Marquez; *The Storyteller* by Mario Vargas Llosa; and *House of the Spirits* by Isabel Allende.
Suzanne Gerson, M.A.
Section 300: Thursdays, October 3, 17, 31, 7-9 p.m.
3 sessions. Education 134. $30.

NCW 003
English Writing Made Simple
Clear communication is a must in the business world and in the classroom. Learn correct grammar and usage, punctuation, and sentence structure as basic fundamentals of good writing.
Joan Thyfault, Editor.
Section 300: Thursdays, September 19- November 7, 7-9 p.m.
8 sessions. Helmers 263. $80.

NCW 005
Writing for Magazines I
Learn the basics, including how to find ideas, manuscript preparation, research, query letters, marketing, and interviewing. Emphasis is on developing your own style and critiquing skills. We cover travel writing, human interest, self-help, essay, science and technology, hobby and craft, and more.
Deidre Elliott, Professional Writer.
Section 300: Saturdays, September 18- October 23, 7-9 p.m.
6 sessions. Ketchum 234. $60.

NCW 013
Advanced Magazine Writing
Prerequisite is Writing for Magazines I or equivalent experience. This course teaches advanced skills necessary for success as a magazine writer.
Deidre Elliott, Professional Writer.
Section 300: Wednesdays, October 30- December 11, 7-9 p.m.
6 sessions. Ketchum 234. $60.

NCW 006
Creative Writing
Expand your creative abilities. Explore dialog, characterization, narrative, description, viewpoint, style, basic structure and more through series of imaginative exercises. Emphasis is on finding your individual voice. For beginners or more experienced writers.
Deidre Elliott, Professional Writer.
Section 300: Mondays, September 23- November 11, 7-9 p.m.
8 sessions. Ketchum 234. $80.

NCW 008
Short Story Writing
Designed for both beginning and experienced writers, this course will cover all aspects of writing the short story, including characterization, plot, setting, theme, and developing one's own style and voice. We will use a workshop format where students will bring their stories-in-progress to class to receive helpful editorial suggestions. The course will also include discussion of the marketplace and how to prepare and submit manuscripts for publication. The recommended text is *American Short Story Masterpieces*, edited by Raymond Carver and Tom Jenks.
Robert McCreary, M.F.A.
Section 300: Thursdays, October 3- November 21, 7-9 p.m.
8 sessions. Muenzinger D156. $80.

Literature and Writing
NCW 025
Literature of the Laureates
We read the names of Nobel Prize winners in the paper, but how many of us have read their works? Join us in reading and discussing four works in translation. We meet alternate weeks to allow time to read: *Love in the Times of cholera* by Gabriel Marquez; *The Master of Go* by Yasinair Kavahita; *Palace Walk* by Naguib Mahfouz, and *A Friend of Kafka* by Isaac Singer.
Susan Gerson, M.A.
Section 300: Thursdays, September 26, October 10 and 24, November 7, 7-9 p.m.
4 sessions. Education 134. $40.
NC W 012
The Children's Book: Illustrating and Getting Published
Learn how to succeed in the highly competitive and rewarding field of children's books. Discussion covers types of books, market trends, illustration techniques, portfolio/manuscript development and submission, book production/printing (including artwork/MS preparation), agents, contracts, awards and self-publishing. For writers or illustrators.
Sandy Ferguson Fuller, Professional Illustrator.
Section 300: Saturday, September 21, 9 a.m.-4:30 p.m. 1 session. Economics 119. $35.

NC W 018
Writing the Novel
This one-day seminar will focus on how to write the novel today's readers — and movie producers — will buy. It will include: How to get ideas, how to structure plot and pace, how to make characters come alive inside and out, how to select and control viewpoint, how to use dialogue, how to slant for today's book and movie market, how to get an agent.
Jerry Earl Brown, Professional Writer.
Section 300: Saturday, October 6, 9 a.m.-5 p.m. 1 session. Woodbury 106. $50.

NC W 021
Screenplay Writing
We cover every aspect of creating a screenplay. Topics include plot twists at the end of Act I, and why Act II is the hardest to write. We look at conflict, growth, time passage, resolution, setups and payoffs, and why the focal point is the midpoint. Rough draft vs. first draft, character development, and tying up loose ends are discussed. Homework is watching selected movies for discussion in class. Finally, we talk about how to market screenplays.
Richard E. Goglia, Professional Writer.
Section 300: Wednesdays, September 18- November 13, 7-9 p.m. 9 sessions. Muenzinger E113. $90.

NC W 024
Editing With Power
One national writer estimates that rewriting a story takes five times longer than drafting it. If rewriting is a time-gobbling monster for you, this workshop will teach you a valuable method of phased rewriting — letting your inner editor improve the work. In revision (phase one), you will evaluate leads, building blocks, conclusions, attitude, flow and order. In self-editing (phase two) you will trim, tighten and correct. Bring your own work to edit, or use samples provided.
Kaye Bache-Snyder, Ph.D.
Section 300: Thursdays, November 7, 14, 21, December 5, 6:30-8 p.m. 4 sessions. Hellems 247. $30.

NC W 029
Usage and Grammar: Guidelines and Rules for Everyday Use
In a workshop setting, learn simple rules for avoiding spelling, punctuation and usage errors in writing. Review grammar rules and when to break them. Improve your speaking skills as well as your ability to write clear, concise memos, letters and business documents.
Michael Foley, M.A.
Section 300: Saturday, October 26, 9 a.m.-12 p.m. 1 session. Hellems 157. $15.

NC W 030
The Novel — Rewriting for the Final Draft
This one-day seminar dissectes the opening sentence, the opening paragraph, the opening chapter. We concentrate on what works, what doesn't and why. It includes in-class exercises on editing and rewriting to achieve a polished final draft. You may submit manuscripts for in-class discussion. Submit a synopsis or sample chapter not to exceed 10 pages, four weeks before the seminar.
Jerry Earl Brown, Professional Writer.
Section 300: Saturday, November 9, 10 a.m.-4 p.m. 1 session. Woodbury 106. $50.

NC W 031
Technical Writing Seminar
With information becoming the major product of our economy, there is a continuous need to upgrade your skills for presenting technical data in concise, easily understood language. Applications include reports, proposals, manuals, trade journals, articles, audiovisual and instructional materials, catalogs, and much more. Step-by-step learning modules (supplied) begin with the basics, and proceed into advanced techniques. Topics include organization, logic, interviewing, writing/editing, as well as manuscript production and electronic-assisted writing.
Mike Gannon, M.B.A.
Section 300: Wednesdays, October 9- November 6, 6:30-9 p.m. 6 sessions. Ketchum 207. $63.

NC W 032
Write With Power
This is an intensive workshop on business writing. Emphasis is placed on choosing the exact word, building sentences and paragraphs, organizing material, and rewriting with purpose. We will discuss applying professional writing techniques to letters, memos and reports.
Margaret Coel, Business Writer.
Section 300: Saturday, November 23, 9 a.m.-4 p.m. 1 session. Business 205. $35.

NC W 004
Financial Planning for Women
Financial security creates peace of mind, heightened self-esteem, retirement with dignity and personal independence. Whether you are married, single, divorced, or widowed, it is important to have a personal financial plan. Learn how to set specific goals and implement a systematic process to ensure your financial good health. Course materials include a complete personal financial planning packet.
Coreine Randolph, M.B.A.
Section 300: Tuesdays, November 5-26, 6-8:30 p.m. 4 sessions.
Longmont High School, Rm. 209. $50.

NC W 013
How to Turn Your Experiences into Salable Articles
Learn how to tailor your experiences for the publications marketplace. Through writing and teamwork in a supportive atmosphere, workshop participants will go through the stages of preparation from idea to finished article. Text is Lois Duncan, How to Write and Sell Your Personal Experiences, from Writer's Digest.
Kaye Bache-Snyder, Ph.D.
Section 300: Thursdays, September 19- October 24, 7-9 p.m. 6 sessions.
Longmont High School, Rm. 208. $60.

NC W 014
Beyond Difficult: Handling the Challenge of Difficult People
You can't escape them. They are customers, co-workers, bosses, subordinates and family members. Learn to handle the difficult people in your life with confidence, humor and satisfying results.
Carolyn Duff, M.A.
Section 300: Wednesdays, September 25- October 2, 7-9 p.m. 2 sessions.
Longmont High School, Rm. 209. $20.

NC W 015
What Women Need to Know About Working With Women
Forty-seven percent of the work force is made up of women. Yet women have traditionally been trained to work with men. Here's what you need to know about relationship networks, competence expectation, cooperation and competition, and other issues. Through explanations, exercises, discussion, inventories and dramatizations, you will learn how to tap the strengths and eliminate the problems when women work with women.
Carolyn Duff, M.A.
Section 300: Wednesdays, October 16-23, 7-9 p.m. 2 sessions.
Longmont High School, Rm. 209. $20.
NCSS 607
Mysticism of the Southwest: A Blend of Traditional Beliefs
Untangle the many facets of mysticism in the American southwest.
Salvador Rodriguez del Pino, Associate Professor, Spanish and Chicano Studies.
Section 303: Wednesday, November 6, 7–9 p.m.
1 session. Environmental Design 120, $10.

NCSS 607
Reminiscences of a Misspent Life in Archaeology
Through anecdote and recollection revile the experiences of one of the foremost archaeologists of the American southwest.
Joe Ben Wheat, Professor Emeritus.
Section 304: Wednesday, November 13, 7–9 p.m.
1 session. Henderson Museum Gallery, $10.

NCSS 607
Penitente Influence in New Mexican Traditional World View
Unmask the influence of this significant force in New Mexico.
Brenda Romero-Hymen, Instructor, School of Music.
Section 305: Wednesday, November 20, 7–9 p.m.
1 session. Environmental Design 120, $10.

The Smithonian Events
The Division of Continuing Education is pleased to be a co-sponsor for the Smithsonian Events. These lectures and seminars highlight aspects of the southwestern cultural tradition.
Thursday, September 26
Arts of the Americas in 1492
Friday, September 27
Revival of Hispanic Traditional Arts
Saturday, September 28
Southwestern Cultural History: Exploring Our Past
Folk Art of the Southwest
Sunday, September 29
Jack Hillers: Smithsonian Photographer in the Southwest
American Indian Easel Painting 19th Century to the Present
Co-Sponsors of the Smithsonian Events:
Boulder Historical Society
Carnegie Library
CSERA, University of Colorado at Boulder
Hispanic Alumni Association, University of Colorado
University of Colorado at Boulder Art Galleries
University of Colorado at Boulder Center for Education
University of Colorado at Boulder Museum
Tickets are available only in advance from the Smithsonian Institution:
U.S. & International Events
Department 0578
Washington, DC 20073-0578

NCSS 607
Highland Maya Cloth: Indigenous Textile Art as a Form of Culture Resistance
Unravel the secrets of the Mayan weavers of Guatemala through slides and discussion.
Robert Carlsen, Ph.D. candidate, Anthropology.
Section 301: Wednesday, October 16, 7–9 p.m.
1 session. Henderson Museum Gallery, $10.

NCSS 607
Secrets and Surprises of the Nicaraguan Election of 1990
Uncover the secrets and surprises leading to the 1990 Nicaraguan election. This seminar will provide background and analysis of this important event.
Leslie Andersen, Assistant Professor, Political Science.
Section 302: Wednesday, October 23, 7–9 p.m.
1 session. Environmental Design 120, $10.
INSTANT ACCESS TO VITAL INFORMATION. THE TELECONFERENCE SOLUTION

With the increasing volatility of fuel costs, it's becoming more difficult to justify "routine" business travel. By contrast, the video teleconference is experiencing significant growth. Business leaders from coast to coast are discovering its value. Colorado professionals rate teleconferencing as good or better than traditional conferencing. They point to the convenience and quality of teleconferences and the credibility of information via satellite. Teleconferencing emphasizes real-world expertise that is replicable in other settings.

Must-Know Topics

Teleconferences cover a wide range of topics, providing useful information for people whose livelihood depends on current knowledge and effective training. Topics include business management, marketing, global trade, small business skills, new industrial and information technologies, government policies and requirements, advances in engineering, human resources issues, health care issues, and professional development skills.

Lively Interactive Workshop Format

CU-Boulder teleconferencing utilizes a live talk-back format featuring national teams of presenters and panels who represent the leading edge in their fields. A typical video teleconference is led by an on-site team of experts. Live-via-satellite presentations are reinforced by detailed agendas, workbooks, texts and worksheets. Throughout the day there are question-answer sessions with the teleconference presenters, interspersed with on-site presentations and demonstrations. The on-site team wraps up the session with a local and regional perspective on the subject, and answers any remaining questions.

Excellent Facilities

Most teleconferences are presented during daytime hours at the Coors Events/Conference Center on the Boulder campus, near the corner of Colorado Avenue at Regent, one block west of 28th Street. Featuring six large meeting rooms and an 11,000 seat arena, the Events Center can accommodate a variety of groups. The large-screen G.E. Talaria projection system is capable of receiving programming from virtually all of the present generation communication satellites. We also have a portable antenna that receives presentations via the newer Ku-band frequency which can be transported to workplace sites.

Audioconferencing

This audio technology enables us to link up to 26 national or international sites for classes, planning meetings, or staff training. Audioconferencing service fees are available to the public on a one-time or regular basis. Please inquire regarding charges and booking time.

Scheduling Information

Because they are live, teleconferences are often scheduled just a few weeks in advance. We are continually adding events to our schedule. To stay current, please write: Division of Continuing Education, University of Colorado at Boulder, Campus Box 178, Boulder, Colorado 80309-0178. Or call 1-800-331-2801. For more information on in-house programming, please call 303-492-6696.

Fees and Parking

Fees vary, but usually include materials, refreshments, parking and lunch. Group rates are available on a program-by-program basis. Parking is available in Lot 436 just north of the Events Center. Parking permits and maps are sent to those who register in advance.

Upcoming Teleconferences

NCSS 501
October 9, 1991
Vehicle Theft Investigations: Practical Aspects and Investigative Needs

NCSS 503
October 10, 1991
The Greek System: An Institutional Asset or Liability

NCSS 499
October 30, 1991
Software Testing and Reliability

NCSS 504
November 20, 1991
Diversity in Higher Education: Can We Meet the Challenge

NCSS 502
December 11, 1991
Wellness and Fitness Programs: A Holistic Approach to Health

NCSS 500
December 11, 1991
Optical Computing
REAL ESTATE EDUCATION PROGRAM

Looking for a career in real estate, advancement in your current real estate profession, or do you simply want to learn more about the real estate industry? These college level courses are open to all persons and can provide you with valuable information about this field. For more information about additional real estate courses offered in Boulder and in cities throughout the state, call 492-8666 or 1-800-336-5839 and ask for the Real Estate Brochure.

- Real Estate Sales and Broker Licensing courses
- Licensed Appraiser courses
- Continuing Education courses for current Real Estate Licensees
- Courses in Property Management, Closings, Water Law, Commercial and Investment Properties, Computer, Foreclosure, and other real estate subjects.

1990 Real Estate Appraiser's Law
The Colorado Legislature passed Senate Bill 90-34 to regulate the Real Estate Appraisal Industry. This law requires appraisers to be licensed by July 1, 1991. To become licensed in Colorado see the following qualifications required by the new law.

Licensed Appraiser (Now Federal) or Licensed Assessment Appraiser:
Applicants shall have had at least 55 clock hours of appraisal education and training or the substantial equivalent thereof as approved by the Appraiser's Board and pass a state exam.

Certified Appraiser:
Applicants shall have had at least 95 clock hours of appraisal education and training, or the substantial equivalent thereof, 2 years of appraisal experience as approved by the Appraiser's Board and pass a state exam.

For the current schedule call 492-8666 and request the Real Estate Brochure.

Real Estate Continuing Education Law—1990
The Colorado Legislature passed House Bill 90-1131 concerning continuing education requirements for licensed real estate brokers and salespersons. The law requires that each licensee complete an 8-hour mandatory course with exam and fulfill the requirement with qualified elective courses. For persons renewing or reinstating an active license the following classroom hours are required for each renewal period.

January 1, 1992-8 hours (6 mandatory—8 elective)
January 1, 1993-16 hours (8 mandatory—8 elective)
January 1, 1994-24 hours (8 mandatory—16 elective)

For the current schedule call 492-8666 and request the Real Estate Brochure.

Colorado Real Estate Broker License
The Colorado Broker License Law requires that a candidate complete the following 48 classroom hours of real estate education in addition to meeting the requirements of a sales license:

(1) NCRE 26 — Finance and Advanced Law, 24 hours, $125.
(2) NCRE 28 — Closings and Trust Accounts, 24 hours, $125.
(3) Score 75% on the state exam.
(4) 'Two years' experience as a real estate sales licensee OR completion of four elective 24-hour courses.
(5) If you are applying for your broker's license you will also be required to prove to the Real Estate Commission that you have completed a Colorado Contracts course required for licensing.

For full details and to apply for the sales or broker license exam, please call the Colorado Real Estate Commission at (303) 894-2166.

For information about the complete real estate schedule call 492-8666 and ask for the current Real Estate Brochure.

NCRE 07 Practice and Law
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.

Section 401: Night Course. 14 sessions. (48 hours): Tuesdays and Thursdays, September 24-December 6, 6:30-9:55 p.m.
Location: Engineering Center 1-146, Boulder Campus. Tuition: $255 plus textbooks.

NCRE 18 Colorado Contracts and Law
A practical course covering Colorado license law and analyzing the standard listing contract, the sales contract, the extension agreement, and counterproposal. Special emphasis will be placed on understanding each clause and on properly completing each type of contract.

Section 401: Night Course. 7 sessions. Tuesdays and Thursdays, November 12-December 5, 6:30-9:55 p.m.
Location: Engineering Center 1-146, Boulder Campus. Tuition: $125 plus text $16.
SMART MOVES.
SPECIAL PROFESSIONAL PROGRAMS

These are focused, interactive 1-to-3-day workshops for people who need to stay on top of new developments in rapidly evolving fields. Our workshops present new knowledge and its applications in practical, real-life terms. Each one has been designed for this market, to offer fresh thinking geared to the achievement of personal and organizational goals. These programs are designed for people who are concerned about productivity and results — in business, industry, government and nonprofit organizations.

Registration. To register, call 303-492-5148 or toll free outside the Denver Metro Area, 1-800-331-2801. Group discounts are available in some cases.

NCSS 080
Book Publishing: Success Secrets
Targeted real-world information. How to choose a marketable subject, position your message for sales appeal and create a powerful title. Discover what agents and publishers look for in a book proposal and learn to negotiate your own contracts. We cover trade publishing, subsidy publishing and self-publishing with practical advice in each area. Self-publishing strategies include: methods to generate working capital; use of a computer to save time and money; and techniques to cut printing costs. Fee includes materials, lunch and parking.
Tom and Marilyn Ross, Senior Consultants with About Books, Inc., a writing, publishing and book marketing consulting firm.
Section 300: Friday, November 1, 9 a.m.-4 p.m. 1 all-day session. Computing Center. $88.

NCSS 081
Public Relations: A Powerful Marketing Tool
Knowing how to position your business can enable you to strengthen your marketing presence. A practical primer on public relations concepts and skills. We cover strategies of promotion and marketing — what's right for you — as well as marketing techniques, copywriting that sells, reaching the press and your customers/clients.
Jancy Campbell, President, Campbell Communications.
Section 300: Wednesday, October 2, 9 a.m.-4 p.m. 1 all-day session. Computing Center. $83.

NCSS 077
Risk Management: A Software-Supported Organization, Planning, Control System
A systematic approach to risk management is crucial to the success of any ambitious project. Hands-on instruction teaches you to identify, categorize and prioritize risks. We address probability, impact, cost and value, and introduce "Riskabate," a software system that gives you a framework for intelligently evaluating exposure, and making an appropriate response. Ideal for construction projects, project development, high tech and financial planning. Computer experience is not required. Fee includes lunch, parking, manual and three diskettes.
Jerry R. Gilland, President, Engineering Management Services.
Section 300: Thursday and Friday, October 17 and 18, 9 a.m.-4 p.m. 2 all-day sessions. Computing Center. $360.

NCSS 001
Resort Condominium Management
A comprehensive look at the industry and the issues that make the industry unique. Topics include types of ownership, feasibility studies, documentation, purchasing, contracts, the real estate industry, and specific management responsibilities. For resort and hotel personnel, condo association officers and members, real estate people, architects, developers and commercial recreation students. Fee includes continental breakfast, lunch and materials.
Course may apply toward 16 hours of elective Colorado Real Estate Continuing Education.
Jerry Hevey, G.R.I., C.H.A.
Section 300/301: Wednesday, Thursday, October 9, 10, 8:30 a.m.-4 p.m.; Friday, October 11, 8:30-11:30 a.m.
Cooro Events/Conference Center. $160 for individual registration; $125 for each additional registration from same company, firm, or University of Colorado at Boulder students.
INDEPENDENT STUDY

Independent Study Removes the Traditional Boundaries of Time and Location for Learners.
Through correspondence instruction, individualized instruction or private lessons, you have opportunities to participate in an individualized mode of instruction not often found in other academic situations. You set your pace and choose the most convenient time and place to study.

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 telephone. Some courses use multimedia materials. 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:
- American studies
- Anthropology
- Business
- Economics
- Education
- Engineering
- English
- Fine arts
- Geography
- History
- Kinesiology
- Music
- Philosophy
- Political science
- Psychology
- Sociology
- Mathematics

Individualized Instruction
Individualized instruction provides an opportunity to earn college credit by meeting with a faculty member in a non-classroom 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.

Applied Music Program
You need not be a campus student to take advantage of music instruction at the College of Music.
In conjunction with the Division of Continuing Education, the College of Music offers private instruction in the following instruments: Banjo, Bassoon, Clarinet, Fiddle, Flute, French Horn, Guitar, Harp, Mandolin, Oboe, Organ, Percussion, Piano, Sax, String Bass, Trombone, Trumpet, Tuba, Violin, Violin-cello, 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.

Professional Opportunities

Real Estate Education
Provides independent study courses to meet licensing requirements for real estate salespeople and brokers.

Childhood Education
These noncredit courses are open to all who are interested in young children.

High School Opportunities

High School Correspondence
These courses provide opportunities for students to meet college entrance requirements, to accelerate graduation, or to meet high school graduation requirements.

For a Course Catalog Call or Write:
Independent Study Programs
Division of Continuing Education
University of Colorado at Boulder
Campus Box 178
Boulder, Colorado 80309-0178
303-492-8756
1-800-331-2801 (Toll Free)

Sanskrit

Sanskrit 1010-3
Introductory Sanskrit 1
An introduction to Sanskrit preparatory to reading classical texts.
Section 008: Tuesdays, September 3-December 8, 10 a.m.-1 p.m.
Norlin 424A. $210 (resident).

Sanskrit 2020-3
Intermediate Sanskrit 1
An intermediate course in Sanskrit including reading classical texts. This course will be conducted as individualized instruction. An organizational meeting will be held in Norlin 424A on September 5, 1991, 10 a.m.-1 p.m. Prerequisite SNKS 1020 or permission of the instructor.
Section 008: September 5-December 12. Room and time to be arranged. $357 (resident.)
Call 492-6409 for information.

Telecourses

Telecourses are another form of independent study. Each course includes a series of television programs, accompanied by a textbook, study guide, and other materials. Broadcasts, seen on KRMA-TV Channel 6, begin September 9, 1991. Call 492-8756 for more information.

ENGL 4452-3
Modern American Poetry, based on Voices and Visions
INTERNATIONAL ENGLISH CENTER

English as a Second Language

... for Academic Study

A member of the national consortium of University and College Intensive English Programs (UCIEP), the International English Center (IEC) provides year-round intensive English-language instruction, cultural orientation, and academic-placement counseling for non-English-speaking students who are planning to enter degree programs in the United States.

The Center places students in six proficiency levels, from introductory to advanced. In 25 hours of classwork each week, attention is paid to all the language skills (listening, speaking, reading, and writing). Students also learn the study skills necessary for undergraduate or graduate academic work. At the advanced levels, students may participate in University of Colorado credit courses or in special career-related Continuing Education certificate programs.

The Center's eight-week (half-semester) sessions are suitable, too, for tourist visitors seeking full-time study in general English combined with intercultural enrichment.

... for Career Advancement

Among recently arrived new residents now working in Colorado — as for many temporary visiting employees — English is an unfamiliar medium of communication. Adequate English-language proficiency is a vital key to satisfactory interaction in any English-speaking workplace.

For speakers of English as a second language, the International English Center offers evening classes in speaking and writing contemporary English, designed to foster effective interpersonal exchange on the job and in the community.

NCFL 900

English for Speakers of Other Languages

This combined-skills course is taught at the intermediate to advanced level and emphasizes practical English appropriate to the personal and professional needs of the participants. The instructor provides study materials.

Ellen Polsky, M.A., is an experienced language teacher who has worked as ESL Coordinator for UCB's Department of Linguistics, where she is completing a Ph.D. degree. She currently holds a full-time appointment as an academic coordinator for the intensive program at the International English Center.

Section 301: Mondays and Wednesdays, September 4 - October 16, 6:30-8:30 p.m. 13 sessions: $110.

IEC Classroom OA1, 1230 Grandview Avenue.

Section 302: Mondays and Wednesdays, October 30 - December 11, 6:30-8:30 p.m. 13 sessions: $110.

IEC Classroom OA1, 1230 Grandview Avenue.

For further information, write or call the IEC directly:

International English Center
Campus Box 63
Division of Continuing Education
University of Colorado at Boulder
Boulder, Colorado 80309-0063
Telephone: (303) 492-5547
Fax: (303) 492-5515

From 8 a.m. to 5 p.m. daily, you may visit the Center's offices, just one block north of the Division of Continuing Education buildings, at 1333 Grandview Avenue.

Malaysian student Chung Kee Chong studies English with Federico Lux from Colombia, Dai Li from China, and Dong Wuk Chung from Korea. All work hard in the intensive IEC program to prepare for admission to the University.

To register for NCFL 900, contact the Division of Continuing Education. (See Page 52 for Four Ways to Register.)
CATECS

Quality Graduate Education at the Workplace

The Center for Advanced Training in Engineering and Computer Science (CATECS) provides the best of both worlds — the efficiency of jobsite learning combined with the intellectual vigor of graduate courses at the University of Colorado.

CATECS delivers on-campus graduate classes in the engineering and computer science disciplines to you:

- Convenient: Take live, televised classes with two-way audio at your own workplace, or receive videotapes
- Flexible: Work toward an M.E. or M.S. degree, or take courses for professional development for credit or noncredit
- Innovative: Earn a degree in Engineering Management or the new Software Engineering program
- Up-to-date: Keep current with the fast pace of change in your field

Each year, CATECS brings over 50 courses to some 600 students at almost 80 different sites. Many students work at companies up and down Colorado's Front Range that are set up as "live sites." These workplaces have special classrooms to receive the CATECS microwave transmission signal. Students who are not able to attend live broadcasts watch courses on tape.

To find out how the CATECS alternative can work for you, call 492-6331. You can visit us in Room AD1-1 in the College of Engineering, or write to:

CATECS
Campus Box 435
University of Colorado at Boulder
Boulder, CO 80309-0435

PROPOSED FALL 1991 COURSES

<table>
<thead>
<tr>
<th>Number</th>
<th>Course</th>
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<tbody>
<tr>
<td>Aerospace (ASEN)</td>
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<tr>
<td>ASEN 5010</td>
<td>Spacecraft Attitude Dynamics</td>
</tr>
<tr>
<td>ASEN 5014</td>
<td>Linear Control Design</td>
</tr>
<tr>
<td>ASEN 5168</td>
<td>Experimental Space Science</td>
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<tr>
<td>Civil, Environmental &amp; Architectural Engineering (CVEN)</td>
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</tr>
<tr>
<td>CVEN 5404</td>
<td>Environmental Engineering Chemistry</td>
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<tr>
<td>CVEN 5537</td>
<td>Computational Methods for Engineers</td>
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<tr>
<td>Computer Science (CSCI)</td>
<td></td>
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<tr>
<td>CSCI 5573</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>CSCI 5654</td>
<td>Linear Programming</td>
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<tr>
<td>CSCI 5828</td>
<td>Software Engineering</td>
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<tr>
<td>Electrical &amp; Computer Engineering (ECEN)</td>
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</tr>
<tr>
<td>ECEN 5029</td>
<td>Simulation Tools/VLSI Systems</td>
</tr>
<tr>
<td>ECEN 5048</td>
<td>Introduction to Optical Electronics</td>
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<tr>
<td>ECEN 5156</td>
<td>Physical Optics</td>
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<tr>
<td>ECEN 5563</td>
<td>Software System Engineering</td>
</tr>
<tr>
<td>ECEN 5593</td>
<td>Advanced Computer Architecture</td>
</tr>
<tr>
<td>ECEN 5677</td>
<td>Power Distribution Systems</td>
</tr>
<tr>
<td>ECEN 5797</td>
<td>Power Electronics I</td>
</tr>
<tr>
<td>ECEN 5811</td>
<td>Neural Signals</td>
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<tr>
<td>Engineering Management (EMEN)</td>
<td></td>
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<tr>
<td>EMEN 5030</td>
<td>Project Management Systems</td>
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<tr>
<td>Mechanical Engineering (MCEN)</td>
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<tr>
<td>MCEN 5020</td>
<td>Methods of Engineering Analysis I</td>
</tr>
<tr>
<td>MCEN 5022</td>
<td>Thermodynamics</td>
</tr>
<tr>
<td>MCEN 5023</td>
<td>Solid Mechanics I</td>
</tr>
<tr>
<td>MCEN 5026</td>
<td>Design and Manufacturing to Cost</td>
</tr>
<tr>
<td>MCEN 5126</td>
<td>Applied Statistics for the Manufacturing and Process Industries</td>
</tr>
<tr>
<td>Telecommunications (TLEN)</td>
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<tr>
<td>TLEN 5134</td>
<td>Strategic Planning for Telecommunications</td>
</tr>
<tr>
<td>TLEN 5300</td>
<td>Introduction to Telecommunications Systems Theory</td>
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<tr>
<td>TLEN 5310</td>
<td>Telecommunications Systems</td>
</tr>
<tr>
<td>TLEN 5830</td>
<td>Optical Communications/Transmission</td>
</tr>
<tr>
<td>TLEN 5834</td>
<td>ISDN</td>
</tr>
<tr>
<td>TLEN 5835</td>
<td>Network Management</td>
</tr>
<tr>
<td>TLEN 5838</td>
<td>Telecommunications Economics</td>
</tr>
</tbody>
</table>

Registration period: July 24-August 14 (late registration fees after this date). Classes begin August 28th. Contact CATECS for registration materials and tuition information.
Free
$1.00 = Free parking after 5 p.m., and Saturdays
$1.00 = $1.00 parking after 5 p.m., and Saturdays (bring 4 quarters)
= Emergency Call Box

During any special event, Continuing Education students shall present their registration receipt to obtain parking at no extra charge (Parking Regulation III-D-8a.)
FOUR WAYS TO REGISTER

1. **Register by mail.** A postage-paid envelope is located in this catalog. Registration forms are on page 53 for noncredit and certificate, page 55 for credit.

2. **Fax your registration.** Fast and easy. Day or night to (303) 492-3962. Send both front and back of page 53 for noncredit and certificate courses. Send both front and back of page 55 for credit courses.

3. **In person.** Come to the Continuing Education Office, 1221 University Avenue, between 9 a.m. and 6 p.m. Monday through Thursday (9 a.m. to 5 p.m. Fridays).

4. **Register by phone,** using Visa or MasterCard. Note: this applies only to noncredit and certificate courses. Complete the registration form (page 53) and have your credit card information handy. Then call 492-8668 or 1-800-331-2801. After October 4 call 492-5148.

Costs vary. Tuition is listed at the end of each course description. You may pay by MasterCard, Visa, cash or check.

Where Are Courses Given? Course locations are given at the end of each course description. Many campus parking lots offer $1.00 parking after 5 p.m. and on Saturdays. Some are free evenings and weekends. The Campus Map gives both building and parking lot locations. To skip parking altogether, take the RTD bus to campus.

Credit Programs You can earn academic credit at every level, high school through graduate school. Credit programs include:

- **Boulder Evening Credit Classes** For university courses with convenient evening hours.

- **Independent Study Programs** Independent study by correspondence and individualized instruction lets you learn at home.

- **Center for Advanced Training in Engineering and Computer Science (CATECS)** Earn a Masters degree or graduate credit with courses televised live to your workplace.

Professional Enhancement: Certificate Programs To polish skills or acquire new ones, enhance a career or explore another field, Continuing Education offers a full spectrum of programs. Or earn a Certificate in:

- **Business and Technology Leadership**
- **Commercial Design**
- **Computer Applications and Computer Graphics**
- **Management Development**

Learning For Learning’s Sake: Noncredit Courses The broad range of noncredit courses, offered at convenient evening and weekend hours, means no tests, no grades, and no prerequisites. Yet noncredit courses, encompassing both personal and professional interests, are taught by highly qualified instructors. Enjoy non-competitive learning with others who share your interests.

Professional Programs Programs for working professionals, to build skills and enhance your understanding of business today:

- **Real Estate Education Program**
- **Special Professional Programs**
- **Video Teleconferencing**

Change Your Mind? Please let us know. If you withdraw before a course begins, you may receive a full refund. Refer to each program description for refund policies after a course starts.

Severe Weather Classes are held when scheduled. The Chancellor closes the campus only because of extreme weather conditions. Closings are announced on local radio stations. Or call 492-5500 for campus closing information.

Other Questions? Problems? Special Needs? **Disabled individuals** should feel free to call our registration staff for special needs and arrangements. We will gladly assist you.

Books and supplies required for all courses are available at the University Book Center in the basement of the University Memorial Center on campus.

Call us at 492-5148 or 1-800-331-2801 if you need help or additional information. You can reach us between 9 a.m. and 6 p.m. Monday through Thursday or until 5 p.m. on Friday.
Registration for Certificate and Noncredit Courses

PLEASE PRINT

S.S. No. # ________________________________
Former Student Number ____________________________

Birthdate ___________ Month/Day/Year

Mr.
Ms.

Last Name       First Name       Middle Initial       Maiden Name

Mailing Address ________________________________________
Home Telephone ____________________________

City ____________________________________________ State ______ Zip ______

Business Name ________________________________________
Business Address ________________________________________
Office Telephone ____________________________

City ____________________________________________ State ______ Zip ______

Have you ever enrolled for credit or noncredit course(s) at any campus of the University of Colorado? ☐ No ☐ Yes

Campus ____________________________ Term ____________________________ Year ____________________________ of most recent attendance.

It is not necessary to be a candidate for certification in order to enroll in certificate program courses.

Please check the appropriate box for registration for candidacy to the following programs:

☐ Management Development Certificate Program
☐ Certificate in Business and Technology Leadership
☐ Certificate in Computer Applications
☐ Certificate in Commercial Design

This application signifies my intention of pursuing a course of study leading toward the program indicated above.

Signature ____________________________ Date ____________________________

Print name as desired on certificate ________________________________________

Course No.          Section No.          Course Title          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 at Boulder
Boulder, CO 80309-0178

If using MasterCard, VISA enclose the following information:

Charge: ____________________________ VISA ☐ MasterCard ☐
Expiration Date ___________ / _________

Print cardholder's name as it appears on the charge card

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

53
Save Time and Money — Use the Postage-Paid Envelope in the Center of this Catalog to Mail Your Registration Form.

SELECTIVE SERVICE REGISTRATION CERTIFICATION

Information on Selective Service registration must be provided in order to comply with Colorado law. Male students born after December 31, 1959, must complete this form in order to be permitted to register.

I certify that I am registered with the Selective Service:

☐ I am not required to register with the Selective Service because:

☐ I am a female.

☐ I am in the U.S. Armed Forces on active duty. (NOTE: Members of the Reserves and National Guard must register with Selective Service.)

☐ I have not yet reached my 18th birthday. (NOTE: You must file this notice every term, if you are male, until you turn 18 and have registered with the Selective Service.)

☐ I am age 26, or older, as of the date of the first day of classes for the term for which I am registering.

☐ I am a non-immigrant alien lawfully admitted in the United States.

I affirm under penalty of perjury that the information presented on this form is true and complete.

(NOTE: A person may file, but shall not be required to file, a statement indicating his position as a Conscientious Objector. The filing of a Conscientious Objector statement does not exempt one from completing this form.)

Student Signature: ____________________________ Date: ________________

Tuition Payment by Mail

Please send a check, payable to University of Colorado, to Division of Continuing Education Campus Box 178 University of Colorado at Boulder Boulder, CO 80309-0178

If using MasterCard, VISA

Charge: ____________________________

Expiration Date: ____________________________

(Enter cardholder name as it appears on the charge card)

Optional Request for Non-Disclosure of Directory Information

Division of Continuing Education University of Colorado at Boulder

Under the provisions of the Family Educational Rights and Privacy Act of 1974 (the "Buckley Amendment"), you have the right as an enrolled student to refuse disclosure of personal information such as name, address, and telephone number which has been designated "Directory Information." Please complete the appropriate section of this form if you wish to change your status designation.

☐ I request that Directory Information NOT be released. I understand that non-disclosure status will be carried forward through all terms I attend until I file a written request to remove it.

☐ I had previously selected non-disclosure status. Change my disclosure status so that Directory Information can be released.

Student Name (Print): ____________________________ Date: ________________

Student #: ____________________________

Student Signature: ____________________________
UNIVERSITY OF COLORADO DIVISION OF CONTINUING EDUCATION

PROGRAM / TERM

Last Name ___________________________ First Name ___________________________ Middle Name ___________________________ Former or Maiden Name ___________________________ Suffix ___________________________

Mailing address ___________________________ No. and Street ___________________________ City ___________________________ State ___________________________ Zip Code + 4 ___________________________ Phone ___________________________

Employment address ___________________________ No. and Street ___________________________ City ___________________________ State ___________________________ Zip Code + 4 ___________________________ Phone ___________________________

BIRTHDATE

SEX: □ Male □ Female

ETNICITY: □ American Indian or Alaskan Native □ Asian or Pacific Islander □ Black □ Caucasian/White □ Hispanic □ I do not wish to provide this information

RESIDENCY: □ Colorado □ Other State

MILITARY SERVICE: □ Non-veteran □ Veteran □ Active Duty Dates to ___________________________

STANIFL: □ Single □ Married

CITIZENSHIP:

□ U.S. Citizen □ Non-U.S. Citizen/permanent status

List alien registr. No ___________________________ —List Type of Temporary Visa ___________________________

1. Do you have a high school diploma or a G.E.D. Certificate? No □ Yes □ (Submit HS Concurrent Form) No □ Yes □ Graduation Date ___________________________.

2. 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

Degree Student □ or Nondegree Student □

3. Are you currently on suspension from any Campus/School of CU? No □ Yes □ School ___________________________.

4. Do you owe a debt to any University of Colorado campus? No □ Yes □ ________

5. Have you ever been convicted of a felony? (other than traffic violation) No □ Yes □ (Attach statement)

SELECTIVE SERVICE REGISTRATION CERTIFICATION:

□ I certify that I am registered with the Selective Service

□ I am not required to register with the Selective Service because:

□ I am a female.

□ I am in the U.S. Armed Forces on active duty.

□ I have not yet reached my 18th birthday.

□ I am age 26, or older, as of the date of the first day of class.

□ I am a non-immigrant alien lawfully admitted in the U.S.

CORD FORMER CU STUDENT NUMBER:

_______________________________

DEPT. ABV. COURSE No. CR. HRS. SEC. No. TITLE(s) of course(s) for which you are enrolling LOCATION

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.

DATES OF CONTINUOUS PHYSICAL PRESENCE IN COLORADO (MO./DAY/YR.) ___________________________ TO ___________________________.

DATES OF EMPLOYMENT IN COLORADO (MO./DAY/YR.) ___________________________ TO ___________________________.

LIST EXACT YEARS FOR WHICH COLORADO INCOME TAXES HAVE BEEN FILED ___________________________.

DATES OF EXTENDED ABSENCES FROM COLORADO OF MORE THAN TWO MONTHS WITHIN THE PAST TWO YEARS (MO./DAY/YR.) ___________________________ TO ___________________________.

DATES OF ACTIVE DUTY MILITARY SERVICE, IF APPLICABLE (MO./DAY/YR.) ___________________________ TO ___________________________.

DATES STATIONED IN COLORADO (MO./DAY/YR.) ___________________________ TO ___________________________.

DATE OF YOUR MARRIAGE, IF APPLICABLE (MO./DAY/YR.) ___________________________ TO ___________________________.

DATE CURRENT COLORADO DRIVER'S LICENSE, IF APPLICABLE (MO./DAY/YR.) ___________________________ TO ___________________________.

ISSUE DATE OF COLORADO LICENSE, IF APPLICABLE (MO./DAY/YR.) ___________________________ TO ___________________________.

LIST EXACT YEARS OF COLORADO MOTOR VEHICLE REGISTRATION ___________________________ TO ___________________________.

DATES OF COLORADO VOTER REGISTRATION (MO./DAY/YR.) ___________________________ TO ___________________________.

DATES OF OWNERSHIP OF ANY COLORADO RESIDENTIAL PROPERTY (MO./DAY/YR.) ___________________________ TO ___________________________.

ARE YOUR PARENTS SEPARATED OR DIVORCED? Yes □ No □

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 rejection or dismissal.

I have read and accept the limitations on transfer of nondegree student credit to a degree program. I understand that a maximum of 12 semester hours will transfer to an undergraduate degree program; 9 to a graduate degree program. I realize a lower maximum may apply in specific programs and that credit may be lost when transferring to a degree program if departmental limits are exceeded.

Student's Signature ___________________________ Date ___________________________

THE UNIVERSITY OF COLORADO IS AN AFFIRMATIVE ACTION/EOE/AA/ADA/AFFIRMATIVE ACTION EDUCATIONAL INSTITUTION.
Save Time and Money — Use the Postage-Paid Envelope in the Center of this Catalog to Mail Your Registration Form.

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**Division of Continuing Education**
University of Colorado at Boulder

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_____ I request that Directory Information NOT be released. I understand that non-disclosure status will be carried forward through all terms I attend until I file a written request to remove it.

_____ I had previously selected non-disclosure status. Change my disclosure status so that Directory Information can be released.

Student Name (Print): ______________________________________________________________

Student #: __________________________ Date: __________________________

Student Signature: _______________________________________________________________

---

**Tuition Payment by Mail**

Please send a check, payable to University of Colorado, to: Division of Continuing Education Campus Box 178 University of Colorado at Boulder Boulder, CO 80309-0178

If using MasterCard, VISA enclose the following information:

Charge: ____________________________

VISA □ MasterCard □

Expiration Date: __/____/____

Print cardholder's name, as it appears on the charge card.
The journey begins.

On this campus Fall is always a special time of year, full of promise. It's a time of new directions, new insights and renewed energy for the choices that confront us as the journey begins. You can see it on the faces of arriving students. You can feel it in the air, a crisp invitation. Pack your bags. Buy some school shoes. Come along.

To register, call 492-5148 or 1-800-331-2801.