UNIVERSITY OF COLORADO AT BOULDER
CONTINUING EDUCATION
SUMMER 1999

ONCE UPON A LIFETIME
NEW AND NOTEWORTHY

Now that we're comfortably settled in our new headquarters at 1505 University Avenue (see story below), we are energetically working on several ideas to expand course offerings and enhance services to students. Watch for details in this space.

BOULDER EVENING DOUBLES UP
Starting this summer, Boulder Evening Credit will offer two consecutive sessions of short, concentrated courses called “intensives.” Many students have requested this, as it offers more flexibility and makes it possible to double the number of credit hours you can earn during summer semester.

WEB ENHANCEMENTS
We've worked to make it easy for you to register for Boulder Evening courses. You can sign up by mail, by fax, or in person. If you register by mail, you can now use the Web to fine-tune your plans. Here's how it works. You mail in the credit registration form on page 47. When we mail you a confirmation form, we will enclose a Personal Identification Number (PIN). Using your PIN you can access the Web to drop classes, or to take Evening Credit courses on a Pass/Fail or No Credit (NC) basis.

INDEPENDENT STUDY REVISITED
Independent Study is more popular than ever. As of this summer, the program has a new name, Independent Learning, and a new slogan, “It's up to you.” For more information about course offerings, visit our web site at www.colorado.edu/ceww. Or call 800-331-2801 and ask our Independent Learning Office to send you details.

AFTER 87 YEARS, A HOME OF OUR OWN
The CU Division of Continuing Education traces its roots to 1911 when the University Regents approved a plan to establish a Department of Extension. The goal was to make the rich academic resources of the university available to members of the community “seeking information and guidance in solution of the complex problems of modern life.” Today, the Division works with each of the University’s schools and colleges to provide a wide range of credit and noncredit courses for degree and non-degree students, faculty and staff. Continuing Education students include a rich sample of the Colorado community, including high school students, part-time and returning students of all ages, professionals interested in career development, and individuals intent on intellectual enrichment and creative expression.

Our new home was constructed as a private residence in 1908 and became a fraternity house in 1921, for the CU chapter of Delta Tau Delta, with subsequent additions in 1934 and 1987. The acquisition and renovation of the building enables us to consolidate our offices in space adjacent to campus with the systems we need to accommodate program growth. Here, under one roof, we now have the talent and the tools to provide opportunities for lifelong learning for generations to come.
BOULDER EVENING CREDIT CLASSES
University of Colorado credit courses offered weekdays after 5 p.m. through the departments of Communication, English, Film Studies, Geography, Philosophy, Psychology, Sociology, Spanish.

NONCREDIT (PERSONAL DEVELOPMENT) COURSES
A lively, relevant approach to the arts, languages, lifestyles, test preparation, and writing.

BUSINESS CLASSES
Noncredit classes to meet challenging business situations, including accounting, marketing, supervision, writing and leadership. Management Development Certificate and Entrepreneurship Certificate also available.

COMPUTER APPLICATIONS CERTIFICATE PROGRAM
Hands-on instruction from user-friendly instructors, to teach you the basics or take you to the power-user edge. Certificates in Network Administration and Programming also available.

DISTANCE LEARNING
Programs designed to bridge the distance between you and the University.
Independent Learning
CATECS
Computer Applications

ADDITIONAL OPPORTUNITIES AVAILABLE THROUGH CONTINUING EDUCATION
The following programs are listed for your information. If you would like to receive a catalog or have questions, a phone number is listed at the end of each description for your convenience.
ACCESS
Applied Music Program
High School Concurrent Programs
International English Center
Real Estate and Appraisal Program
Summer Session and High School Summer Scholars

CAMPUS MAP

REGISTRATION INFORMATION
Dates, deadlines, eligibility, financial aid, tuition, refunds, residency and more.

CREDIT REGISTRATION FORM

NONCREDIT/CERTIFICATE REGISTRATION FORM

INDEX
WHAT’S YOUR STORY? WHAT’S YOUR GOAL?
CU ACADEMICS WILL TAKE YOU THERE.

WHY TAKE AN EVENING CREDIT COURSE? Well, why not? If you've dreamed of finishing that degree, or finishing that degree sooner, or exploring a new direction in learning and living, this is your chance to step up to the plate and see about it. Evening Credit gives you a challenging and rewarding learning experience on the CU campus with evening hours that accommodate busy days. To understand exactly how Evening Credit courses fit into your planned program of study, check a current University catalog for admission and program requirements and make an appointment to talk to an advisor.

ELIGIBILITY: All you need is a high school diploma or GED. (Individuals on University of Colorado financial stops may not enroll.)

RESIDENCY: 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. The last day to petition (provide residency documentation) for Summer semester is June 10, 1999.

UNDER 23? If you're not 23 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 303-492-5148.

TUITION: Tuition is determined by residency status. Resident tuition is $100 per credit hour. Some courses requiring special equipment or materials may be slightly higher. Non-residents of Colorado are assessed tuition based on the number of semester hours for which they register. Non-residents may register for up to three (3) semester hours at the rate of $180 per credit hour. Non-residents registering for four (4) or more semester hours of credit courses offered by the Division may be assessed non-resident tuition at the rate established by the Board of Regents. The Division will charge our in-state rate for Boulder Evening classes when a non-resident student pays for 4 or more hours through Summer Session and then enrolls for additional Boulder Evening courses.

PRIVILEGES: As a Boulder Evening Credit student, total library services are available at no additional charge.

STUDENT FEES: Boulder Evening students have the option of paying student fees for use of campus facilities (RTD bus pass, Recreation Center, Wardenburg Health Center and other student services). Information on cost and paying student fees may be obtained by calling 303-492-5148.

ACADEMIC ADVISING: An academic advisor is available to help you plan a degree program, decide on a major, or simply explore your options. Feel free to call 303-492-5145 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 building, Room 2 (303-492-4518).

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 Veterans Services in the Office of Financial Aid, Environmental Design building, Room 2 or call 303-492-7322.

TO ENROLL: Advance registration is necessary, by CU Connect, the web, by mail, by FAX, or in person at the Division of Continuing Education. See the instructions on the inside front cover of this catalog.

PASS/FAIL: Any Boulder Evening course taken for pass/fail is subject to restrictions established by your school or college.

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 and complete a drop voucher. If you don't officially withdraw from a course, you may receive a grade of "F" for that class.

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.

Why do certain people act the way they do? Anne Brooks unveils the biological roots of behavior in Biopsychology (PSYC 2012), a course that helps students understand the physiological side of personality. Dr. Brooks says students come away with a more compassionate understanding of mental illness and insights into their own and others' behavior. Dr. Brooks works on the teaching staff at Centennial Peaks, an adolescent medium security lockup facility, a job she loves. She says, "Biopsychology helps you understand the causes. We're working to give them another shot." A graduate of Eastern Illinois U., she did her graduate work at CU at the Institute for Behavior Genetics. She taught the first online classes at CU-Denver and is still involved in the program. She served in the Peace Corps in the Central African Republic in 1983-84, and taught for CU-Denver in Beijing, Katmandu and Moscow. Dr. Brooks says she realized years ago that the traditional tenure-track path is not for her. Evening Credit enables her to teach and Centennial Peaks enables her to apply what she knows. "I'm going on 40 and I'm still idealistic," she says, adding, "I think the potential for making a real difference is right here."
CREDIT CLASSES CALENDAR - DATES YOU SHOULD KNOW

MAY 10  First day of registration at Continuing Education, 1505 University Avenue, 7:30 a.m.-5:30 p.m. Monday through Thursday, 7:30 a.m.-5 p.m. Friday.

JUNE 7  Term 3W (Seven-Week) classes begin. FACULTY/STAFF registration for Boulder Evening classes on space available basis. 50% discount. Active PAF employment verification copy required.

JUNE 8  Term 1W (Five-Week) classes begin. FACULTY/STAFF registration for Boulder Evening classes on space available basis. 50% discount. Active PAF employment verification copy required.

JUNE 11 LAST DAY TO REGISTER FOR TERM 1W AND TERM 3W CLASSES. Withdrawals from Term 1W and 3W after this date will appear as a "W" on student's academic record.

JUNE 14 Instructor's signature required to drop Term 1W and 3W classes.*

JUNE 21 Petition required to drop Term 1W and 3W classes.

JULY 5 Independence Day Holiday. University closed.

JULY 8 Term 1W classes end.

JULY 13 Term 2W (Five-Week) classes begin. FACULTY/STAFF registration for Boulder Evening classes on space available basis. 50% discount. Active PAF employment verification required.

JULY 16 LAST DAY TO REGISTER FOR TERM 2W CLASSES. Withdrawals from Term 2W classes after this date will appear as a "W" on student's academic record.

JULY 19 Instructor's signature required to drop Term 2W classes.*

JULY 26 Petition required to drop Term 2W classes.

JULY 22-26 Term 3W classes end.

AUGUST 12 Term 2W classes end.

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

REFUND SCHEDULE FOR BOULDER EVENING

TERM 1W
100% through June 11
60% June 14 through June 18
40% June 21 through June 25
NONE THEREAFTER

TERM 3W
100% through June 11
60% June 14 through June 18
40% June 21 through June 25
NONE THEREAFTER

TERM 2W
100% through July 16
60% July 19 through July 23
40% July 26 through July 30
NONE THEREAFTER

Samantha Abrams, a Psychology major, took Dr. Moore's Shakespeare class to fulfill a core requirement. She says, "I heard it was a good class and a good prof and I really like it. I'm learning a lot."
In addition to registering by mail, fax (303-492-3962), or in person (1505 University Avenue), Boulder Evening students are eligible to register using CU Connect (the telephone registration system) or the web. To be eligible to use either CU Connect or the web, students must have a current Continuing Education term record and have no academic or financial stops which could prevent them from registering. To set up a term record, return the registration form on page 47. You will be sent an invitation to Register through the mail verifying your eligibility along with your Personal Identification Number (PIN). Please remember to keep your PIN confidential. Use of CU Connect or the web obligates you for any tuition charges as a result of adding any course. CU Connect and the web are normally available Monday through Friday 7 a.m. to midnight and Sundays from 11 a.m. to midnight. They are not available on Saturdays or on May 31 or July 4.

WEB REGISTRATION

Eligible Boulder Evening students can register on the web by accessing the CU home page at www.colorado.edu and choosing Personal Lookup Services or going directly to www.colorado.edu/plus and selecting the “Registration” button. You will then need to enter your student ID number and Personal Identification Number (PIN). Then choose Continuing Education and follow the instructions on the web page from there to add or drop and request pass/fail or no credit. You will need to enter the 5 digit course call numbers to register for courses and click on the “submit” button to process each course request. To verify your course selections, click on the “Schedule” tab at the bottom of the page. When you’re finished, be sure to exit web registration.

You can also conduct online course searches via web registration. The web registration course search tool allows you to search by subject, level, course number, core requirements, and by meeting time. The course search is updated on a real-time basis, so if you need a course you would like to sign up for, you immediately know whether there is still room in the course.

CU CONNECT REGISTRATION

Call CU Connect, 303-938-8100, from any touch-tone phone to register. Use the confirmed registration function codes listed below:

- the Boulder-campus code 1
- the Continuing Education code 1
- the registration application code 1
- the term code 994
- your University student number ____________
- your personal identification number (PIN) __________

Fill out the information below completely. When prompted, enter the courses you’ve listed below. Press the star (*) or pound (#) keys as indicated. Whenever you press the # key, wait for the computer voice to respond before proceeding with the next entry. For more time between entries, press #.

<table>
<thead>
<tr>
<th>ADD CODE</th>
<th>COURSE CALL NUMBER</th>
<th>Department Abbreviation</th>
<th>Course Number</th>
<th>Credit Hours</th>
<th>Enrolled Waitlisted?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 *</td>
<td></td>
<td>#</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 *</td>
<td></td>
<td>#</td>
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<td>2 *</td>
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<td></td>
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</tr>
</tbody>
</table>

OTHER CU CONNECT FUNCTIONS

To add a course, press 2*, the course call number, then #
To drop a course, press 3*, the course call number, then #
To request a course for no credit, press *1 between the course call number and #
To request a course for pass/fail, press *2 between the course call number and #
To list your courses, verify your schedule, or check your wait list position, press 5#
To search for open sections, press 7#
To place your name on a wait list, press 9#
To cancel an entry, press *# before you have completed the transaction
To exit the registration application, press 8* then 1 to access the student billing application for your account balance and/or credit card payment options, or press 2 to end the call.

SURVIVAL TIP

When you register through CU Connect or the web, you are obligated for the full tuition and fees resulting from the use of the Personal Identification Number (PIN) issued to you.
ADDITIONAL REGISTRATION INFORMATION

VERIFYING AND ADJUSTING YOUR SCHEDULE
Once you have registered, it is important that you verify your schedule either through CU Connect or the web. Your schedule can be adjusted through the dates listed on the calendar on page 4.

WAIT LISTS
Placing your name on a wait list does not guarantee that you will be enrolled in that course. Enrollment is determined by the total number of spaces and the demand for each particular course. Spaces may or may not become available at a future time.

You can check your position on any course wait list either on the web at www.colorado.edu/plus or by calling CU Connect and pressing 5# (list schedule function). If you are wait listed for a Boulder Evening course and a space becomes available, a Continuing Education Registrar will contact you directly. If you wish to be enrolled, payment is due within 48 hours to hold your space in the course. Accurate telephone numbers are therefore important for us to contact you directly.

ACCOUNT BALANCES
The amount of tuition you owe is available both through CU Connect and the web. Credit card payments, using VISA, MasterCard or Discover, can be made on CU Connect only. You can also call our accounting office at 303-492-2212 to make a credit card payment, fax your credit card information to 303-492-3962, or visit our offices at 1505 University Avenue.

COURSE RESTRICTIONS
Some Boulder Evening courses have prerequisites and enrollment restrictions. It is your responsibility to ensure that you have met the listed prerequisites and/or restrictions. If you are unsure, please call 303-492-5145 and make an appointment with our academic advisor.

GRADES
To access your grades through the web, log on to www.colorado.edu/plus, enter your student ID number and PIN, and choose the grades option.

To access your grades through CU Connect call 303-938-8110 from any touch tone phone, press 1 for the Boulder campus, 1 for Continuing Education, 2 for the grade code function and enter the term code (994 for summer) followed by your student number and PIN. To determine the term code for previous semesters, the first two digits are the year and the last digit the semester (1-Spring, 4-Summer, 7-Fall).

ADDITIONAL WEB FUNCTIONS
With your student identification number and PIN, in addition to registering, you are also able to find the following:
- degree program information (primary and secondary college, major, residency, gpa, and class standing)
- registration status (advising requirements and academic or financial stops)
- class schedule for all current and past terms enrolled and all future terms for which you have registered
- current semester billing and financial aid information
- address changes
- PIN changes
- degree audit (for certain colleges)

PROBLEMS? QUESTIONS?
If you have any type of registration stop, you will not be allowed to enroll via CU Connect or the web. Please call our registration office at 303-492-5148 for more information on your stop.

If you have a Continuing Education term record for summer and no registration stop, please call 303-492-5148 between 8:30 a.m. and 5 p.m. Monday-Friday for further assistance. After hours, please call 303-492-5145 for a recorded message.
CLASS BY STARTING DATE, SUMMER 1999

TERM 1W (FIVE-WEEK) CLASSES

Tuesday, Wednesday, and Thursday Courses, Begin June 8 and End July 8

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Course No.</th>
<th>Section</th>
<th>Call No.</th>
<th>Time</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHST</td>
<td>3015-3</td>
<td>100</td>
<td>60010</td>
<td>5:30-8:30 p.m.</td>
<td>Introduction to Chicano Studies</td>
</tr>
<tr>
<td>COMM</td>
<td>3000-3</td>
<td>100</td>
<td>60011</td>
<td>6-9 p.m.</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>HIST</td>
<td>2000-3</td>
<td>100</td>
<td>60012</td>
<td>6-9 p.m.</td>
<td>Revolution in History</td>
</tr>
<tr>
<td>MOUR</td>
<td>1012-3</td>
<td>100</td>
<td>60013</td>
<td>5:30-8:30 p.m.</td>
<td>Critical Thinking and Writing</td>
</tr>
<tr>
<td>KINE</td>
<td>3420-3</td>
<td>100</td>
<td>60014</td>
<td>5:30-8:30 p.m.</td>
<td>Nutrition, Health and Performance</td>
</tr>
<tr>
<td>PSCI</td>
<td>4794-3</td>
<td>100</td>
<td>60015</td>
<td>5:30-8:30 p.m.</td>
<td>Politics and Literature</td>
</tr>
</tbody>
</table>

TERM 3W (SEVEN-WEEK) CLASSES

Monday and Wednesday Courses, Begin June 7 and End July 26

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Course No.</th>
<th>Section</th>
<th>Call No.</th>
<th>Time</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL</td>
<td>3060-3</td>
<td>300</td>
<td>60016</td>
<td>6-9 p.m.</td>
<td>Modern and Contemporary Literature</td>
</tr>
<tr>
<td>GEOG</td>
<td>3082-3</td>
<td>300</td>
<td>60017</td>
<td>6-9 p.m.</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>PSYC</td>
<td>3012-3</td>
<td>300</td>
<td>60018</td>
<td>6-9 p.m.</td>
<td>Biological Psychology 1</td>
</tr>
<tr>
<td>SOCY</td>
<td>3015-3</td>
<td>300</td>
<td>60019</td>
<td>6-9 p.m.</td>
<td>Self in Modern Society</td>
</tr>
</tbody>
</table>

Tuesday and Thursday Courses, Begin June 8 and End July 22

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Course No.</th>
<th>Section</th>
<th>Call No.</th>
<th>Time</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL</td>
<td>3051-3</td>
<td>300</td>
<td>60020</td>
<td>6-9 p.m.</td>
<td>Intermediate Fiction Workshop</td>
</tr>
<tr>
<td>PHIL</td>
<td>3082-3</td>
<td>300</td>
<td>60021</td>
<td>6-9 p.m.</td>
<td>Philosophy and Society</td>
</tr>
<tr>
<td>PSYC</td>
<td>3456-3</td>
<td>300</td>
<td>60022</td>
<td>6-9 p.m.</td>
<td>Psychology of Personality</td>
</tr>
<tr>
<td>SOCY</td>
<td>3016-3</td>
<td>300</td>
<td>60025</td>
<td>5:30-8:30 p.m.</td>
<td>Sex, Gender, and Society 1</td>
</tr>
<tr>
<td>UWRP</td>
<td>3020-3</td>
<td>300</td>
<td>60024</td>
<td>6-9 p.m.</td>
<td>Topics in Writing: Art and Analysis</td>
</tr>
</tbody>
</table>

TERM 2W (FIVE-WEEK) CLASSES

Tuesday, Wednesday, and Thursday Courses, Begin July 13 and End August 12

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Course No.</th>
<th>Section</th>
<th>Call No.</th>
<th>Time</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILM</td>
<td>3563-3</td>
<td>200</td>
<td>60025</td>
<td>6-9 p.m.</td>
<td>Producing the Feature Film</td>
</tr>
<tr>
<td>PSCI</td>
<td>3054-3</td>
<td>200</td>
<td>60026</td>
<td>6-9 p.m.</td>
<td>American Political Thought</td>
</tr>
<tr>
<td>SOCY</td>
<td>1005-3</td>
<td>200</td>
<td>60027</td>
<td>6-9 p.m.</td>
<td>Social Conflict and Social Values</td>
</tr>
<tr>
<td>SPAN</td>
<td>2101-3</td>
<td>200</td>
<td>60028</td>
<td>5:30-8:30 p.m.</td>
<td>Second-Year Spanish 1</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 non-resident reduced 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.

The Board of Regents reserves the right to change tuition without prior notice.

All tuition and refund determinations are subject to audit.
COMMUNICATION

COMM 1300-3
Public Speaking
Covers theory and skills of speaking in various public settings. Treats fundamental principles from rhetorical and communication theory and applies them to oral presentations.
Joel Guenther, M.A.
Term 1W - Section 100: Call No. 60011 Tuesdays, Wednesdays, and Thursdays, June 8-July 8, 6-9 p.m. Muenzinger E113. $300 (resident).

ENGLISH

ENGL 3051-3
Intermediate Fiction Workshop
Intermediate course in fiction writing. May be taken up to three times for credit.
George Moore, Ph.D.
Term 3W - Section 300: Call No. 60020 Tuesdays and Thursdays, June 8-July 22, 6-9 p.m. Ketchum 206. $300 (resident).

ENGL 3060-3
Modern and Contemporary Literature
Close study of significant twentieth-century poetry, drama, and prose works. Readings range from 1920s to the present. Prereq., sophomore standing. Approved for arts and sciences core curriculum: literature and the arts.
George Moore, Ph.D.
Term 3W - Section 300: Call No. 60016 Mondays and Wednesdays, June 7-July 26, 6-9 p.m. Ketchum 235. $300 (resident).

ETHNIC STUDIES

CHST 1015-3
Introduction to Chicano Studies
Introduces basic vocabulary, concepts, and topics relating to the study of the Mexican-American experience. Examines how social science theory and methodology produce stereotypes. Approved for arts and sciences core curriculum: cultural and gender diversity.
Margarita Olivas, B.A.
Term 1W - Section 100: Call No. 60010 Tuesdays, Wednesdays, and Thursdays, June 8-July 8, 5:30-8:30 p.m. Muenzinger E131. $300 (resident).

FILM STUDIES

FILM 3563-3
Producing the Feature Film
Designed to give students a behind-the-scenes look at the way production in the entertainment industry is structured and works. Emphasizes the critical role the script plays in the production process. Students analyze story structure and components and production values of various feature scripts. Also focuses on roles, functions, and relationships of writer, producer, director, and editor; the budget process; and all phases in the production process. Screenings in conjunction with script analysis will also be featured. Film 3561 or 3563 may be used for partial fulfillment of major requirements.
Frank Iannella, M.A.
Term 2W - Section 200: Call No. 60025 Tuesdays, Wednesdays, and Thursdays, July 13-August 12, 6-9 p.m. Guggenheim 205. $308 (resident).

GEOGRAPHY

GEOG 1982-3
World Regional Geography
An intellectual journey around the globe, stopping at major regions to study the people, their environments, and how they interact. Topics include the political/economic tensions in changing Europe, conflicts in Brazilian rain forests, transitions facing African peoples, and rapid changes in China.
Betsy Forrest, M.A.
Term 3W - Section 300: Call No. 60017 Mondays and Wednesdays, June 7-July 26, 6-9 p.m. Benson Earth Sciences 185. $300 (resident).

HISTORY

HIST 2100-3
Revolution in History: The Environmental Revolution
Examines the causes, character, and significance of political revolution in world history. Concentrating on one of the major revolutions of modern history, it examines why revolutions occur, who participates in revolution, and to what effect. Specific course focus will vary. Approved for arts and sciences core curriculum: historical context.
Stephen Sturgeon, Ph.D.
Term 1W - Section 100: Call No. 60012 Tuesdays, Wednesdays, and Thursdays, June 8-July 8, 6-9 p.m. Clare Small 207. $300 (resident).

JOURNALISM

JOUR 1002-3
Critical Thinking and Writing
Students review grammatical and organizational principles, experiment with several rhetorical modes, summarize and analyze media texts, and learn techniques for writing and editing clearly and effectively. To improve their persuasive abilities, students learn to use library resources and computer databases to conduct basic research about controversial issues. Students learn to think critically about media by studying personal writing (autobiographical essays), informative writing (news and feature writing), persuasive writing (columns and reviews), and promotional writing (public relations and advertising).
Jan Whitt, Ph.D.
Term 1W - Section 100: Call No. 60013 Tuesdays, Wednesdays, and Thursdays, June 8-July 8, 5:30-8:30 p.m. Muenzinger D459. $300 (resident).
KINESIOLOGY

KINE 3420-3
Nutrition, Health, and Performance
Basic principles of nutrition and their relationship to health. Students may not receive credit for both KINE 3420 and PSYC 2062. Prereq., junior standing (pre-nursing students are exempt). Approved for arts and sciences core curriculum: natural science.
Brian Seaward, Ph.D.
Term 1W - Section 100: Call No. 60014 Tuesdays, Wednesdays, and Thursdays, June 8-July 8, 5:30-8:30 p.m. Hale 270. $300 (resident).

PHILOSOPHY

PHIL 1200-3
Philosophy and Social Thought
Introduces philosophical thought through critical analysis of our own society, its institutions, and principles. Approved for arts and sciences core curriculum: United States context, or ideals and values.
Lee Speer, M.A.
Term 3W - Section 300: Call No. 60021 Tuesdays and Thursdays, June 8-July 22, 6-9 p.m. Hale 230. $300 (resident).

POLITICAL SCIENCE

PSCI 3054-3
American Political Thought
Development of American political theories and ideas from colonial period to present. Can also be taken for American field credit. Prereq., PSCI 2004 recommended. Approved for arts and sciences core curriculum: United States context, or ideals and values.
Vince McGuire, Ph.D.
Term 2W - Section 200: Call No. 60026 Tuesdays, Wednesdays, and Thursdays, July 13-August 12, 6:9 p.m. Duane Physics G31. $300 (resident).

BCSW 4734-3
Politics and Literature
Broadly examines political topics as they are presented in important literary works and analyzes the possibilities involved in using the literary mode to present political teachings. Prereq., junior or senior standing. Approved for arts and sciences core curriculum: critical thinking.
Loren Weinberg, Ph.D.
Term 1W - Section 100: Call No. 60015 Tuesdays, Wednesdays, and Thursdays, June 8-July 8, 5:30-8:30 p.m. Muenzinger E123. $300 (resident).

PSYC 2012-3
Biological Psychology 1
Broad survey of biological bases of learning, motivation, emotion, sensory processes and perception, movement, comparative animal behavior, sexual and reproductive activity, instinctual behavior, neurobiology of language and thought, and neurophysiology and neuroanatomy in relation to behavior. Prereq., completion of 12 or more hours of college work. Approved for arts and sciences core curriculum: natural science.
Anne Brooks, Ph.D.
Term 3W - Section 300: Call No. 60018 Mondays and Wednesdays, June 7-July 26, 6-9 p.m. Muenzinger E0046. $300 (resident).

PSYC 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 sociocultural context. Enrollment restricted to juniors and seniors.
Patrick Vann, Ph.D.
Term 3W - Section 300: Call No. 60022 Tuesdays and Thursdays, June 8-July 22, 6:9 p.m. Muenzinger E432. $300 (resident).

SOCIOLOGY

SOCY 1005-3
Social Conflict and Social Values
Explores origin, escalation, and resolution of social conflict. Focuses on major conflict theories, human values and social action, and use of simulation and negotiation exercises for learning conflict management skills. Approved for arts and sciences core curriculum: contemporary societies or ideals and values.
TBA
Term 2W - Section 200: Call No. 60027 Tuesdays, Wednesdays, and Thursdays, July 13-August 12, 6:9 p.m. Clare Small 207. $300 (resident).

SOCY 1016-3
Sex, Gender and Society 1
Examines status and power differences between the sexes at individual and societal levels. Emphasizes historical cross-cultural context of gender roles and status, and reviews major theories of gender stratification. Same as WMST 1016. Approved for arts and sciences core curriculum: gender and diversity.
TBA
Term 3W - Section 300: Call No. 60023 Tuesdays and Thursdays, June 8-July 22, 5:30-8:30 p.m. Duane Physics G125. $300 (resident).
HAPPY ENDINGS START
WHEN YOU DARE TO DREAM.

WHAT’S ON YOUR “TO DO” LIST? Things that get done consistently are usually things you have to do for your boss, your family, your friends. But what about you? What about that recurring impulse to explore subjects and ideas that fascinate you. When does that get done? If your life role has too many “shoulds,” maybe it’s time to tweak the script. Start here.

Tuition and classroom locations are listed at the end of each course description. Only preregistered students may attend class. Early registration is advised as class sizes are limited. 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. Please keep in mind that non-attendance or non-payment does not constitute withdrawal. If you would like to withdraw from a course, contact the Division of Continuing Education.

Students enrolled in Continuing Education Foreign Language classes may use the University of Colorado Anderson Language Technology Center. Located in Hellem's Hall, the lab provides state-of-the-art audio, video and print materials for language students. A receipt for your Continuing Education language class is all that you need to use the facility.

Classes will not meet on July 5.

Good news for people with serious aspirations in the entertainment industry. Leigh Kennicott is teaching two good classes this summer. Drawing on her experience in LA as a writer and actor for movies, commercials and sitcoms, Leigh has insider knowledge to share. In Acting for the Camera, she teaches practical tricks of the trade that are an essential part of on-camera work. In Team Writing, students will write the script for a short film about Boulder. The beauty of it is that basic structural work and first-draft scripting are done by the class on a collaborative basis through a process of thinking out loud. Leigh began her career as an actress, then moved into producing and sitcom work with Miller Boyette Productions, producers of Happy Days and other prime time shows. She earned an MA at Cal State Northridge and is working on her Ph.D. here at CU. Leigh says coming to CU is “the best thing I ever did.” This summer, she is directing and producing a play titled, “Teahouse” that will be presented in the ideal venue—the Teahouse.
NONCREDIT COURSES, SUMMER 1999

ARCHITECTURE AND LANDSCAPE
Four Season Colorado Landscape

COMMUNICATION
Introduction to American Sign Language

FINE ARTS
Basic Photography
Creative Photography Workshop
Landscape Portraiture and Nature Photography
Life Drawing
Introduction to Drawing
Landscape in Water Media
Introduction to Oil Painting
Portraiture Workshop
The Art of Handmade Books
Discovering Your Creativity
Art Appreciation from Renaissance to the Present

FOREIGN LANGUAGES
Beginning Conversational French
Beginning Conversational Italian
Conversational Italian for Advanced Beginners
Beginning Conversational Spanish
Conversational Spanish for Advanced Beginners
Intermediate Conversational Spanish

HISTORY AND CULTURE
Historic Tour of Western Boulder County

INVESTMENTS AND PERSONAL FINANCE
Basic Investing
Planning for Retirement
The Five Minute a Day Personal Financial Plan
The Debt Free Prosperous Living Seminar

LIFESTYLES - PERSONAL AND PROFESSIONAL
Sports Psychology: For the Athlete and Business Professional
Whole Mind Reading
Finding and Running the Organic Farm
Do What You Love: The Career Decision Workshop

NOT FOR ADULTS
Cartooning for Kids 8-12
Cartooning for Teens 13-18
Study Smarter: Grades 10-12

SCIENCE
An Introduction to the Universe
Identification of Wildflowers of Boulder County
A Field Trip: The Geology of Boulder
Ethnobotany

TESTING AND ACADEMIC PREPARATION
Preparing for the Graduate Management Admission Test (GMAT)
Preparing for the Graduate Record Exam (GRE)

THEATRE AND MUSIC
Behind the Scenes! The Colorado Shakespeare Festival
Acting Basics
Acting for the Camera

WRITING AND LITERATURE
How to Write Magazine Articles and Get Them Published
Creative Writing
Writing Fiction: A Weekend Intensive
Writing Screenplays: The Team Approach
Writing in the Real World: How to Write Non-fiction

ARCHITECTURE
NCAL 011
Four Season Colorado Landscape
If your goal is a beautiful yard all year long, this class is for you! We discuss landscape features and specific plants as we investigate four-season gardening in Colorado's beautiful but arid climate. Have the yard that is the showcase of the neighborhood.
Andrew Mead, B.S., runs a landscaping and design business.
Section 100: Tuesday, July 20, 6-9 p.m. 1 session
Ketchum 235. $25.

Instructor Nadia Turk answers a question from Randy Grow in Beginning French class. Her goal is to help students build conversational skills and confidence from the very start. She says she is pleasantly surprised at the growing interest in French language skills. She has a loyal following of students who appreciate the energy and enthusiasm she brings into the classroom. Nadia says, "I know it can be intimidating for adults to learn a foreign language. And so it's a very rewarding experience to see how quickly they begin to relax, to participate, and work as a team. For me, it's a joy to come to these classes. Because she grew up speaking French and travels often to France, her teaching reflects her first-hand knowledge of French idioms and culture.
NCFA 044
Landscape Portraiture and Nature Photography
Learn the basics of color landscape with a strong emphasis on the flowers of Boulder County. Find out more about camera equipment and filters as well as compositional strategies. The first section will meet on Thursday, July 15 for an instructional session. Then we will have two three-hour field sessions on Saturday, July 17 and 24. After having the film processed, we'll meet as a group to view and discuss our photographs on Thursday, July 29. The second section will meet on Thursday, August 5 for an instructional session. Then we will have two three-hour field sessions on Saturday and Sunday, August 7 and 8. After having the film processed, we'll meet as a group to view and discuss our photographs on Thursday, August 12. Michael Grasseschi, B.A., has been a photography workshop instructor at the Crested Butte Wildflower Festival for five years. His work has been exhibited in several shows and published in magazines.
Section 101: Thursdays, July 15 and 29, 6:30-8:30 p.m. and Saturdays, July 17 and 24, 9 a.m.-12 noon. 4 sessions. Ketchum 119. $70.
Section 102: Thursdays, August 5 and 12, 6:30-8:30 p.m. and Saturday and Sunday, August 7 and 8, 9 a.m.-12 noon. 4 sessions. Ketchum 119. $70.

NCFA 005
Life Drawing
Using exercises in learning to see and respond, drawing the figure will become a skill that belongs to you. We progress from gestural to contour line drawings, using surface shading and modeling. Bring soft and hard charcoal, vine charcoal, pink pearl eraser, 18x24 inch newsprint pad, 2B pencil, black India ink, #4 bamboo brush, charcoal pencil, white and brown conte crayons and pencils, pen holder and point, bamboo pen, and red, yellow, green, purple, orange, and white pastels. Tuition includes fees for a model, present at every session.
Barbara Preskorn, M.F.A., is a professor of Fine Arts.
Section 100: Wednesdays, June 16-July 21, 7-9 p.m. 6 sessions. Fine Arts N275. $100.

NCFA 020
Introduction to Drawing
Learn to translate your observations through drawing! You will explore line, value, texture, perspective and more. Working with different materials, such as paper, pencil, graphite, ink, charcoal and house paint, you will experience different approaches to contemporary drawing. No experience is necessary to start drawing now! Supplies will cost approximately $50. Call 303-492-5148 for a supply list.
Kimberlee Sullivan, M.F.A. in Painting and Drawing from CU-Boulder, is an Associate of the Rocky Mountain Women's Institute and a current member of the EDGE Gallery.
Section 100: Tuesdays, June 22-August 3 (no class July 6), 6:30-9 p.m. 6 sessions. Fine Arts N298. $105.

NCFA 022
Landscape in Water Media
No experience required to create a stunning summer landscape in a different location each Saturday morning. Composition, color and creative techniques will be the focus of this class. A variety of media can be used including watercolor, dry watercolor, water-based crayons and/or pencils, soft pastels, oil pastels or colored pencils. Call 303-492-5148 for a supply list. Meet on Varsity Bridge near Macky Auditorium for the first class meeting. Other destinations include Boulder Creek at the Library, Chautauqua Park, and Artist's Point at the top of Flagstaff Mountain. Weather dates arranged if needed.
Barbara Preskorn, M.F.A., is a professor of Fine Arts.
Section 100: Saturdays, June 19-July 17 (no class July 3), 10 a.m.-1 p.m. 4 sessions. $85.
NCFA 028
Introduction to Oil Painting
Unlock the mysteries of this luminous approach to painting. The course introduces students to color theory, palette selection and color mixing. Traditional techniques and oil-based mediums will be explored as students create their own paintings. Particular emphasis will be placed on the observation of light and on developing strong compositions. No prior experience necessary, however, we recommend Introduction to Drawing be taken first. Supplies will cost approximately $120 to $150. Call 303-492-5148 for a supply list.
Christina Craig, M.F.A., is a painter who has exhibited her work in New York and India.
Section 100: Wednesdays, June 23-August 4, 6:30-9:30 p.m. 7 sessions. Fine Arts N103. $130.

NCFA 040
Portraiture Workshop
This intensive course is open to everybody who would like to draw or paint a portrait. Students are encouraged to bring their favorite medium to work with. Since portrait study has its own rules, you may choose to paint in oil, watercolor, pastels, or simply draw in pencil or charcoal. The main goal will be to observe the proportion of the human head and what exactly creates the difference between various people. There will be a short overview of portraiture art history that will help students see how the old masters capture the expression and character of their models. Join us to find out how to apply the rules of the portrait to your favorite technique.
Ileana Barbu, M.F.A., paints in oil and watercolor and is an expert in the areas of clay modeling and bas-relief.
Section 100: Saturday and Sunday, July 17-18, 9 a.m.-4 p.m. 2 sessions. Fine Arts N103. $100.

NCFA 050
The Art of Handmade Books
An artistic approach to an age-old pleasure. This series of four “hands-on” workshops will introduce students to the exciting and enriching art and technique of book making. Using decorated book papers, letter press and linocut printing, sewn bindings, accordion folds, photo albums and other new and classic techniques, students will design and create personal books to treasure and acquire the materials and skills to keep creating on their own. Classes are designed so that materials created in one session are added to in the following sessions. Three instructors plan to be at each class, providing close personal attention and encouragement to each student. $25 materials fee payable to instructor at first class.
Section 100: Saturdays, July 17-August 7, 1-4 p.m. 4 sessions. Fine Arts C174. $150.

NCFA 070
Art Appreciation from Renaissance to the Present
Learn to appreciate the art around you by learning more about its historical and cultural context. We will look at paintings and sculptures with a critical eye, analyzing different styles and discussing how artists’ works often reflect the world around them. We’ll cover significant periods in art history, looking at works of major artists and analyzing prevalent styles. Periods to be covered are the Renaissance/Baroque, Impressionism, Native American, and Modern. You’ll never feel intimidated or apathetic in a museum again and will finish the course with a much greater appreciation of the visual arts. Includes an optional visit to the Denver Art Museum on June 26.
Priscilla Graven has an M.A. in Art History from CU-Boulder, and an M.A. in Italian.
Section 100: Tuesdays and Thursdays, June 15-24, 6-8 p.m. and Saturday, June 26, 10 a.m.-12 noon. 5 sessions. Economics 205. $70.

NCFL 100
Beginning Conversational French
Designed for students with little or no knowledge of French, this course covers grammar but emphasizes conversational skills. Cultural aspects of French life and practical conversation for travelers will also be covered.
Anne-Marie Colwell, M.A., is a native French speaker and teaches French at CU-Boulder and the Boulder Valley School District.
Section 100: Mondays and Wednesdays, June 7-30, 6-8 p.m. 8 sessions. Economics 117. $125.

NCFL 102
Beginning Conversational Italian
Examines the basics of Italian conversational grammar as well as various aspects of modern Italian culture and the Italian way of life. Participants will learn the essentials of the language, view videos, and hold open discussions. Required text, In Italiano, available at the CU Bookstore.
Shelley Sullivan, M.A. in Italian Literature, has lived in Italy and taught in Colorado and Virginia.
Section 100: Wednesdays, June 23-July 28, 6-8 p.m. 6 sessions. Ketchum 118. $95.

Colette Marie is a dancer and a writer who has been trying to get around to studying French “for a long time.” And now she is. This is her second time around with Beginning French and she feels she is making real progress. Colette says that her colleagues, who are fluent in French, are really starting to notice and comment as her skills advance. Practical conversational skills are critical, as she is in the process of forming a new dance company and planning a trip to French-speaking Côte d’Ivoire.
NC1 021
The Five Minute a Day Personal Financial Plan
For busy people who want to secure their financial independence. Be prepared to work on your personal financial plan for savings, investments, insurance needs, taxes, major future purchases, vacations and just plain old accumulation and distribution of assets. You will develop your investment portfolio, cash flow and budgeting system, and learn to preserve and increase your net worth. During the class you will learn the ABC's of investing, portfolio design, using money as a tool, develop future money needs, adjusted for inflation, and develop and implement an action plan. By knowing what you want and need you will be in control. Then when you meet with your personal advisors you will tell them what you want and not the other way around.
Alvars Ziedins, M.S.F.S., has over 26 years experience as a financial planner and entrepreneur. Section 100: Saturdays, June 19-26, 9 a.m.-1:30 p.m. 2 sessions. Hellem's 201. $65.
NC 1022  
The Debt Free Prosperous Living Seminar  
Get completely out of debt in 5-7 years, including mortgage. Sound impossible? Well, whether you earn $15,000 a year or $150,000 a year, this program will teach you how to turn $1 of debt into $11.83 of real wealth! You will owe no money to anyone and you will have no credit debt. No second jobs or austerity budgets are necessary. Learn how to live on 100% cash, handle emergencies, purchase a new home, and buy cars and appliances. Bring list of debts and a calculator and leave with your own debt elimination plan that can be immediately implemented into your own lifestyle. Optional text is available in class for $49.  
Jeff Meyer, B.A., was a successful investment advisor when he began teaching the debt elimination program.  
Section 100: Thursday, July 15, 6:30-9:30 p.m. 1 session. Hale 260. $30.

NC 1020  
Sports Psychology: For the Athlete and Business Professional  
This effective and entertaining course teaches participants how to find and turn on their own success switch. The course utilizes the confidence building, stress reducing and success-creating mental skills of Olympians and high achieving business professionals. Learn how to use the powerful connection between mind and body to your advantage. Easy to learn performance enhancing skills and techniques are taught in a fun and relaxed manner.  
Tom Gangel, M.A., has been teaching and presenting workshops to business persons, health care workers, athletes and students for thirteen years.  
Section 100: Tuesdays, July 6-13, 6:30-9 p.m. 2 sessions. Ketchum 119. $35.

NC 1021  
Whole Mind Reading  
So many books...so little time? Not to mention the stacks of newsletters, magazines, journals, reports, memos. Make a shift from the linear, sequential, word-by-word paradigm of laborious reading to a whole brain/body model that is purposeful and energizing because it taps into your mental and creative reserves to dramatically increase reading speed and satisfaction. You will read “smarter, not harder” by selecting the most useful materials and focusing on what is most pertinent. Learn immediately applicable techniques for optimizing your state of mind and organizing information before and after you read to easily retain and recall material relevant to your purpose.  
Deborah Fink, an academic librarian and teacher for nearly two decades, is an author, certified PhotoReading instructor, and founder of MetaLearning.  
Section 100: Saturday and Sunday, June 26-27, 10 a.m.-4 p.m. 2 sessions. Hale 236. $85.

NC 1042  
Finding and Running the Organic Farm  
For those of you who have a desire to work on or own a farm, this class will discuss how to find a good farm and work it in an environmentally sound fashion. Topics covered include organic farming methods and the business aspects, including production and marketing, of running a farm. The course includes a field trip to an organic farm, the date of which will be announced in class.  
John McKenzie, B.A., J.D., has run his family’s diversified certified organic farm since 1981.  
Section 100: Tuesdays, June 22-July 13, 6:30-8:30 p.m. 5 sessions (including field trip).  
Hale 230. $70.  
Enroll 117

NC 1052  
Do What You Love: The Career Decision Workshop  
Break out of the “earning-a-living” rut and be paid to do what you truly love. This workshop takes participants through a hands-on, eight-step career decision making process, utilizing time-tested exercises and vocational testing. Discover what you are truly capable of; generate a realistic list of career options, including self-employment; identify your greatest talents, interests and hidden motivators; find the right career match; uncover hidden opportunities; and find your niche in today’s marketplace. Materials fee of $30 to be paid to instructor for workbook, handouts and testing materials. Dick Roberts, Ph.D., is a certified career counselor and national seminar leader and has led this highly acclaimed workshop for over 24 years.  
Section 100: Tuesdays, June 22-July 13, 6-9 p.m. 4 sessions. Hale 240. $85.

NCFA 365  
Cartooning for Kids 8-12  
In three fun-filled mornings, kids are introduced to the basics of cartooning including expression, movement, character, animals and more. This step-by-step introductory workshop provides kids with useful art techniques for creating greeting cards, comic strips, T-shirt designs and much more. Bring a fine-line black marker and a #2 pencil to each session. All other materials provided. New assignments for previous students.  
Eric Teitelbaum, is a cartoonist with The New Yorker magazine and co-creator of the nationally syndicated cartoon “Bottom Liners.”  
Section 100: Monday, Tuesday, Wednesday, June 28-30, 9 a.m.-12 noon. 5 sessions. Baseline Middle School, Room 320. $80.
NCSO 010
Identification of Wildflowers of Boulder County
General principles of taxonomy will be taught along with identifying features of major plant families. Emphasis will be placed on learning to use taxonomic keys to identify native plant species. Taxonomic and ecological features of flowering plants will be examined.
Joyce Gellhorn, Ph.D. in Botany, teaches field classes at CU-Boulder's Mountain Research Station.
Susan Parks Halabrin, M.B.S. in interdisciplinary studies, works with the Denver Museum of Natural History on educational curriculum development.
Section 100: Thursdays, June 10-17, 6:30-9:30 p.m. and Saturdays, June 12-19, 9 a.m.-3 p.m. 4 sessions. Ketchum 118. $130.

NCSO 036
Ethnobotany
Journey with us into the past, through slides and stories, to learn about the medicinal/edible uses of plants by ancient and not-so-ancient people, including your own ancestral roots. Learn also how to grow some of these plants in your garden as well as go "into the field" to identify plants. Samples of various plants will be provided in class as well as recipes for remedies, food, and the home. $3 materials fee payable to the instructor in class. Saturday field trip in Boulder area to identify medicinal and edible plants is included.
Lynne Hiltstrom, M.A., P.C., M.G., is an Advanced Master Gardener with 25 years of organic gardening experience and is a trained herbalist.
Section 100: Wednesdays, June 9-30, 6:30-8:30 p.m. and Saturday June 26, 9 a.m.-12 noon. 3 sessions. Hale 260. $80.

NCSO 037
A Field Trip: The Geology of Boulder
This weekend class will take participants on a tour of the geologic formations around Boulder. Focus is on the geologic history at our feet and how the topography has changed over time. Bring a hand lens with you for examining rock samples.
Barbara Mieras, Ph.D. in Geological Sciences, has been an exploration geologist and science educator.
Section 100: Saturday, June 5, 9 a.m.-4 p.m. 1 session. Ramaley NIB31. $50.

NCSO 364
Cartooning for Teens 13-18
A cartoon class created especially for teens. Young people learn not only the basics of character design, expression and movement, but also special techniques for caricaturing famous people and celebrities, designing super heroes, and how to create and send cartoon ideas to comic book and publishing companies. A fun-filled, information-packed program and a lively experience for young artists. Bring a fine-line black marker and a #2 pencil to each session. All other materials provided. New assignments for previous students.
Eric Teitelbaum, is a cartoonist with The New Yorker magazine and co-creator of the nationally syndicated cartoon "Bottom Liners."
Section 100: Monday, Tuesday, Wednesday, June 28-30, 1-4 p.m. 3 sessions. Baseline Middle School, Room 320. $80.

NCSO 003
An Introduction to the Universe
Required background: None - just a keen interest in our universe. Take a guided tour of the solar system using slides obtained from NASA's manned and unmanned missions. Then, obtain an overview of the universe including: the origin, structure and evolution of stars; the nature of white dwarfs, neutron stars, and black holes; the dynamics of galaxies; and the origin and evolution of the universe, all illustrated with slides from ground-based and space-based telescopes, including Hubble. The June 7 class will be held at Fiske Planetarium where two shows will be presented: The Night Sky, an introduction to the stars, constellations, and Earth motions; and The Springtime of the Universe, on the origin and evolution of the universe.
Joe Romig, M.Sc., Ph.D., is a member of the NASA Voyager Science team and has been an instructor for 25 years.
Section 100: Sunday, Monday, and Tuesday, June 6-8, 6:30-8:30 p.m. 3 sessions. Duane Physics G131 and Fiske Planetarium. $45.

David Alessi has been to France and plans to go back and stay longer. He is taking Beginning French so that when he does, "I can feel more a part of it." He loves languages and hopes to study Italian as well. He says it's really exciting to be back in a classroom, ready, willing and eager to learn.
NCT 301
Preparing for the Graduate Record Exam (GRE)
Analyze and review basic test skills, reviewing relevant verbal, math and analytical problems. Students need 9th Edition, Official Guide: Practicing to Take the GRE General Test for the first class, available at the CU Bookstore. Please note that students register separately for the exam. Exam registration deadlines may occur prior to the beginning of the class. Call 510-873-8100 for GRE exam registration information. Students need the book at the first class meeting. Strategies for the computer test are included. Monday and Tuesday classes meet from 6-10 p.m. Wednesday and Thursday classes meet from 6-9 p.m.
Test review instructors from PREP Associates, Inc. in Wheatridge, Colorado.
Section 100: Monday and Tuesday, June 21-22, 6-10 p.m. and Wednesday and Thursday, June 23-24, 6-9 p.m. 4 sessions. Geology 121. $175.

NCT 001
Behind the Scenes! The Colorado Shakespeare Festival
No-holds Bard! Come join us for a behind the scenes peek at the plays and productions of the 1999 Colorado Shakespeare Festival! Meet CSF actors and artists for backstage tours and informal pre-show discussions of the plays and productions! This year we offer the Merry Wives of Windsor, Henry I, Henry II and Comedy of Errors. Enrollment is limited. No refunds. Registration deadline is June 14. Rain policy: plays proceed unless conditions threaten players or audience. If a performance is canceled before 10 p.m. because of weather, ticket stub serves as a rain check. See CSF brochure for details. Ethelyn Friend, M.F.A., is Director of Education for the Colorado Shakespeare Festival and a CSF actor.
Section 101: Wednesday, July 7, 6:30-7:30 p.m. Merry Wives of Windsor. Hellem 255. $45.
Section 102: Wednesday, July 14, 6:30-7:30 p.m. Henry I. Hellem 255. $45.
Section 103: Wednesday, July 21, 6-7 p.m. Henry II. Hellem 255. $45.
Section 104: Tuesday, July 27, 6:30-7:30 p.m. Comedy of Errors. Hellem 255. $45.

NCT 017
Acting Basics
The goal of this class: bringing to life moments of true emotions once felt, imagined, or written, to engage your mind, body, spirit, and emotions. Relaxation exercises and voice and breathing warm-ups will be stressed. Each student will prepare a two minute monologue that can be used for auditions after the class is completed. We will also experiment with a variety of scene exercises involving two or more performers. In a supportive and safe environment you will gain tools for expression and refine your own natural talents. All levels of experience are welcome. Beth Osnes, Ph.D. in Theater, is an instructor, performer and director.
Section 100: Mondays, June 14-July 26 (no class July 5), 6:30-8:30 p.m. 6 sessions. Economics 119. $85.
NC W 005
How to Write Magazine Articles and Get Them Published
From sure-to-sell query letters to sure-to-happen publication, learn all the steps to successful magazine article writing and sales. We will cover what editors look for, how to write an organized yet creative article, catchy openings, interview steps, revising and editing and then marketing the finished product. The instructor also works individually with students' articles.
Su Wright, B.S., has published articles in national and local magazines and newspapers. She also worked for a local magazine as copy editor, was editor of a weekly newspaper and feature editor for a local monthly newspaper.
Section 100: Tuesdays, June 15-July 13, 6:30-8:30 p.m. 5 sessions. Hale 260. $70.

NC W 006
Creative Writing
Discover ways to express yourself in fiction, non-fiction and poetry. Strengthen characters, narration and writing style through a series of exercises designed to heighten the imagination. For beginners and more experienced writers.
June Favre is an award winning poet, playwright and performer.
Section 100: Mondays, June 14-July 19 (no class July 5), 6:30-8:30 p.m. 5 sessions. Hale 256. $70.

NC W 077
Writing Fiction: A Weekend Intensive
Learn the fundamentals of writing fiction in one weekend. This intensive workshop is the place for beginners to get the basics and seasoned writers to sharpen skills. On Friday evening (bring popcorn and soda) we'll view a recent movie and then discuss the plot and story structure to see how film has affected the way in which popular fiction is written today. Saturday (bring something for a potluck lunch) we'll combine lecture, discussion and short writing exercises, featuring a different aspect of good fiction each hour. Topics include: creating dynamic characters, writing believable dialogue, pacing, and information about the business of writing. Jerrie Hurd, M.F.A., is an experienced writing teacher, a frequent speaker at conferences, an award-winning writer and has recently published her third novel, The Lady Pinkerton Gets Her Man.
Section 100: Friday, July 30, 6-9 p.m. and Saturday, July 31, 9 a.m.-4 p.m. 2 sessions. Hale 236. $80.

NC W 078
Writing Screenplays: The Team Approach
Learn a new approach to writing screenplays, one in which Team Dynamics, commonly used in television sitcom writing is adapted to any dramatic form. While the group decides the bare bones of plot and genre, each participant is responsible to the group for one character's development within that plan. Utilizing this lively and dynamic method, the class will finish a completed one-act play, screenplay, or television script. Along the way, each participant will have learned about creating dynamic scenes, using the language of film imagery, and how to develop character-driven action through believable dialogue. Leigh Kennicott, Ph.D. candidate, has worked in development for major motion picture studios as well as in television and film production in Los Angeles.
Section 100: Saturdays, June 19-July 31 (no class July 5), 9:30 a.m.-12:30 p.m. 6 sessions. Economics 117. $130.

NC W 079
Writing in the Real World: How to Write Non-fiction
Writing non-fiction articles, stories, and books is a specialty that requires tenacity, skill, dedication and hard work. An author must stick to the facts and still weave an interesting story. The results can be pleasing for the writer and illuminating for the reader. Technical writers, business executives and newspaper reporters deal in non-fiction writing every day. But how do you go about it? Where do you find the subject matter, how do you conduct the research, how do you outline your project, how do you write it, and where do you sell it? The goal of this course is to provide students with the tools needed to convert ideas into completed written works. At the end of six weeks, the student should emerge as a better researcher, investigator, interviewer, editor and writer.
Don Davis has over 20 years experience in the newspaper industry and has published seven non-fiction books and one novel.
Section 100: Wednesdays, June 16-July 21, 6:30-8:30 p.m. 6 sessions. Education 138. $85.
THE STORY CONTINUES. THE HERO IS YOU.

When it comes to writing the master plan for a successful career, you are the author and architect of your own destiny. So it's important to keep current on business theory and skills that pertain to the work you do today and to prepare you for the work you will be doing five years out. Business Classes put you in a stronger position to choose what happens next.

MANAGEMENT DEVELOPMENT
CERTIFICATE OF ACHIEVEMENT
To earn this certificate, you must satisfactorily complete four required courses and three or more electives. Basic Skills for the Supervisor is recommended as a starting point. The required classes are: Critical Issues in Current Management, Accounting and Budgeting for the Non-Accountant, Understanding Marketing: Developing and Promoting Your Product or Service, and Managing People.

CERTIFICATE OF ENTREPRENEURSHIP
The Certificate of Entrepreneurship is designed to give current and future business owners the skills to plan and lead a successful business venture. Participants are required to take four core classes and two electives. Core classes include: Accounting and Budgeting for the Non-Accountant, Starting a Business: From the Ground Up, Entrepreneurism — Are You Ready?, and Understanding Marketing: Developing and Promoting Your Product or Service.

Only preregistered students may attend class. Refunds are granted any time before a course begins; none later. To withdraw from a course, you must contact the Division of Continuing Education.

Classes will not meet on July 5.

BUSINESS COURSES, SUMMER, 1999

GETTING STARTED
Basic Skills for the Supervisor

ACCOUNTING AND FINANCE
Accounting and Budgeting for the Non-Accountant

ENTREPRENEURISM AND SMALL BUSINESS
Entrepreneurism - Are You Ready?
Starting a Business from the Ground Up

MANAGEMENT/SUPERVISION
Critical Issues in Current Management

MARKETING/SALES
Understanding Marketing: Developing and Promoting Your Product or Service

WRITING AND COMMUNICATION
Beginning Technical Writing

GETTING STARTED

NC B 100
Basic Skills for the Supervisor
Beginning Level

Learn useful real-world techniques and principles that enable you to become an effective supervisor. We cover: understanding individual differences, motivational concepts, leadership theories, building productive work teams, managing change and conflict, and managerial problem solving. A recommended prerequisite to other Management Development Certificate classes. Optional final exam.

Charles Rice, M.B.A., is an instructor at the CU-Denver College of Business Administration, and specializes in executive training and development.

Section 100: Saturdays, June 19-26, 9 a.m.-4 p.m. 2 sessions. Economics 13, $130.

SKILL LEVEL GUIDE
A Guide to Business Courses' Recommended Skills 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. If you have questions about a course level, please call the Division of Continuing Education at 303-492-5148.

Beginning
No previous experience necessary.

Intermediate
Assumes completion of Basic Skills for the Supervisor or Better Business Writing or equivalent skill level.

All Levels
Course encompasses varied levels of experience.
NC B 002
Starting a Business from the Ground Up
Beginning Level
This course will cover the many requirements from various government agencies with which a new business must comply. We will cover incorporation, labor and employee requirements, payroll and sales taxes, property and income taxes, licensing and permits. The workshop will help you understand how to get through these regulations as easily as possible and how to look for opportunities which can save your business time and money.
Donald Kaniecki, has been a C.P.A. in Boulder County for more than 15 years, working with small businesses and small business owners.
Section 100: Saturday, July 17, 9 a.m.-1 p.m.
1 session. Business 250. $50.

NC B 210
Understanding Marketing: Developing and Promoting Your Product or Service
Intermediate Level
You or your company have products, services, or ideas for new offerings. How should you market them to potential customers? Learn why the most important part of marketing is knowing WHAT to make or offer before beginning advertising and selling. Learn how to understand your market, evaluate competitors, formulate your ideas and budget, and implement your plan. This course presents a case study at each session for an interactive, skill-learning experience.
Robert Beck, M.B.A., has marketed many brands and services, from household names to start-ups.
Section 100: Tuesdays, June 22-July 20, 5:30-8 p.m. 5 sessions. Economics 13. $175.

NC B 230
Critical Issues in Current Management
Intermediate Level
Understand critical management issues, and the tools, tactics, and strategies to successfully resolve them. Topics include: managing morale and motivation; pluralism and commitment to diversity; developing and maintaining high productivity; successfully changing problem employees; merging work groups for accomplishments; creating a positive, productive corporate culture; and analyzing problems to promote achievement.
Charles Rice, M.B.A., is an instructor at the CU-Denver College of Business Administration, and specializes in executive training and development.
Section 100: Saturdays, July 17-24, 9 a.m.-3 p.m.
2 sessions. Muenzinger E118. $110.

NC B 470
Beginning Technical Writing
All Levels
Learn basic technical communication principles that apply to all forms of writing. Write clear, concise statements. Organize documents to deliver information efficiently. Design your message for maximum readability. Course provides four tutorial modules, in-class writing exercises, guidance for real-world writing projects, and individual feedback from the instructor.
Brian Bevirth, B.A., has 18 years of experience as a technical communicator for business, industry, and science.
Section 100: Tuesdays, July 13-August 10, 6:30-9 p.m. 5 sessions. Duane Physics G1B27. $140.

Jennifer Lamb is taking Beginning French because she works for the International Mountain Bicycling Association in Boulder. The nonprofit organization just opened an office in Switzerland and Jennifer will be there on business a couple of times a year. She says "Nadia really gears the class to practical use of the language. That's the right approach for me because I want to become conversant as quickly as I can."
COMPUTER COMPETENCY HELPS YOU GET THINGS DONE. SO YOU CAN GET ON WITH YOUR STORY.

FOR MOST PEOPLE, computer applications are a means to an end. The challenge is to learn how to use a proliferating variety of new tools to make research, communication, planning and record keeping easier, faster, better and more fun. Our program covers the full spectrum of applications, from basic skills to programming and websites. Our labs are stocked with the machines you want to know better, and the software you need to learn next. Our Certificate programs are strong on content and marketplace relevance, at an excellent price. And our instructors make hands-on learning easy and fun.

COURSE LOCATIONS: The majority of courses offered through the Computer Applications Program are held in the University Computing Center at the corner of Arapahoe and Marine (3645 Marine) and the University Management Systems Building, 4780 Pearl East Circle (east of Foothills Parkway on Pearl). Please check the course descriptions for the location of your class.

PARKING: At University Management Systems (UMS), parking is free day and evening directly in front of the building. At the University Computing Center (UCC), Saturday and evening parking is free. For day classes, metered street spaces are available or permits for Lot 578 (southwest of the building) will be available at the class. For other course locations, please refer to the campus map located at the back of the catalog.

PREREQUISITES: Many courses have recommended prerequisites listed at the end of each description, but equivalent experience is accepted. If you are unsure if you have the necessary background to successfully complete the course, please call 303-492-5148.

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. Only preregistered students may attend class. Access to University computers outside of class time is limited. Please call 303-492-5148 if you have questions about computer access.

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.

QUESTIONS? If you have any questions about this program, please call the Division of Continuing Education at 303-492-5148, or outside the Denver Metro area, 1-800-331-2801.

WAYS TO REGISTER

see page 46

Issy Kilbride reads the manual cover to cover, so you don’t have to. She can tell you why errors and crashes happen and how to avoid them. Through teaching, she translates those big techno books into plain usable English. And in her spare time, she tries to make trouble, noting, “That’s my job. I dink with it for hours. I try to make things break. Then I know how to fix them.” Issy is teaching Microsoft Office and Mac classes this summer. She says: “I like to teach shortcuts. I want the computer to do the work, to make it really simple.” Issy started out in accounting. When her company decided to computerize, she got involved as a liaison to the programmers, who taught her a lot. Later, she took some applications classes and stumbled onto a keen interest that opened up a career in teaching and consulting. She says she sees some frustration just now as people transition from WordPerfect to the Microsoft environment but that, in general, computer users are quickly becoming a savvy group. Issy adds, “I love the students up here. They are wonderful, with-it, intelligent and motivated.”
CERTIFICATE PROGRAMS

The Division of Continuing Education is proud to offer the following noncredit computer certificate programs. These programs have been developed in cooperation with professionals in the field to make each certificate both relevant and state-of-the-art. Programs and courses are designed and redesigned to meet the training needs of our students and the business community. Each certificate is designed to be completed individually. One is not a prerequisite for the other. However, many students have found it helpful to achieve more than one as some of the requirements can overlap and it can increase their marketability.

CERTIFICATE IN COMPUTER APPLICATIONS

You may earn a Certificate in Computer Applications by completing the requirements listed below. These requirements provide a comprehensive understanding of an ever-changing computer industry.

A. Five required core courses:
   1. CACS 100 Computer Literacy*
   2. CACS 201 Concepts of Computer Information Technology
   3. CACS 202 Computer Applications Overview
   4. CACS 204 Computer Systems Overview
   5. CACS 220 Introduction to Networks

*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 request a waiver for this course or any other core requirement by submitting a letter to the Division of Continuing Education documenting the equivalent education and/or experience for each course you wish to waive.

B. At least one course in programming. Programming languages offered include C, C++, and Java. Other topics are added to keep pace with industry standards.

C. Four elective courses chosen from the full range of computer topics. Any computer applications course not listed above qualifies as an elective. You may wish to focus on a specific subject area (i.e., computer graphics, databases) in order to become more proficient in a type of application.

CERTIFICATE IN NETWORK ADMINISTRATION

The Certificate in Network Administration is designed for individuals responsible for technical support of local and wide area networks. You may earn the certificate by completing the requirements listed below.

Choose one of three tracks:
A. Windows/Intel Track
   CACS 220 Introduction to Networks and CACS 321 Network Administration
B. Macintosh Track
   CAMC 100 Introduction to the Macintosh
C. UNIX Track
   CACS 211 Introduction to UNIX and CACS 311 Intermediate UNIX

Operating System Courses (required for all students)
CACS 303 Computer Operating Systems
CACS 305 Computer Architecture
CACS 323 Network Operating Systems

Administration Courses (select at least one)
CACS 304 Introduction to Windows NT 4.0 Administration
CACS 314 NetWare Administration
CACS 315 UNIX System Administration
CACS 404 Intermediate Windows NT 4.0 Administration

Other Administration Course
CACS 424 Wide Area Networking Topics (required for all students)

Programming Courses
Choose at least one course in programming.

Database Courses
Choose at least one course in database management.

If you have a substantial background with computers, you may request a waiver for a course by submitting a letter to the Division of Continuing Education documenting the equivalent education and/or experience for the course you wish to waive.

Ed Zucker has been teaching Intro to UNIX for years. He says it's been consistently popular with periodic surges of interest—most recently because of the Internet. The course is comprehensive in scope with seven sessions providing an in-depth look at shells, file system and intervals.
CERTIFICATE IN PROGRAMMING

The Certificate in Programming is designed for individuals who wish to pursue a career involving programming or who need to update their skill to stay current in the industry.

Choose at least one of three tracks: C, C++, or Java. The Certificate must be completed within a three-year period. Past courses may apply.

If you have a substantial background in programming, you may request a waiver for a course by submitting a letter to the Division of Continuing Education documenting the equivalent education and/or experience for the course you wish to waive.

Novices are required to take CACS 240 Introduction to Programming and at least one of the following labs:
- CACS 241 Introduction to Hands-On C++
- CACS 242 Introduction to Application Programming

C Track
- CACS 243 Introduction to C for Programmers
- CACS 543 Intermediate/Advanced C Programming

Students are required to take one hands-on lab, a C++ or Java Track course and one Special Topics course.

C++ Track
- CACS 244 Introduction to Object-Oriented Programming in C++
- CACS 544 Intermediate / Advanced C++
- CACS 444 C++ Gotchas
- CACS 541 Intermediate Hands-On C++ or
- CACS 542 Intermediate Application Programming

Students are required to take two Design Topics courses.

Java Track
- CACS 247 Introduction to Object-Oriented Programming Using Java
- CACS 347 Intermediate Java
- CACS 447 Advanced Java Language
- CACS 448 Advanced Java Library

Students are required to take at least one Java Topics course and one Design Topics course.

Special Topics Courses
All students are required to choose at least one Special Topics course not taken to satisfy a track requirement.

Java Topics:
- CACS 246 One-Day Tour of the Java Programming Language
- CACS 348 GUI Programming in Java
- CACS 349 JavaBeans
- CACS 449 2D and 3D Graphics with Java

Design Topics:
- CACS 345 Object-Oriented Design Patterns
- CACS 445 Introduction to Object-Oriented Analysis and Design
- System Design
- GUI Design

Visual Basics Topics:
- CAPC 437 Visual Basic Programming Using Excel
- CACS 245 Introduction to Hands-On Visual Basic Programming
- CACS 350 Intermediate Hands-On Visual Basic

Database Design Topics:
- CAPC 357 Database Design Concepts
- Intermediate Database Systems
- Relational Database Concepts and SQL Programming

Other topics will be added to keep pace with industry standards.

Students interested in using any of the above listed programming courses to fulfill prerequisites for undergraduate computer science courses should contact Continuing Education at 303-492-5148.

COMING FALL 1999
CERTIFICATE IN PROFESSIONAL WEB DEVELOPMENT

The Division of Continuing Education will offer a Certificate in Professional Web Development for individuals responsible for development and maintenance of a professional web site. Any Internet course taken in the summer will count toward the Certificate requirements.

Information regarding the requirements for this Certificate may be obtained by calling 303-492-5148 or by visiting the Computer Applications Program web site at: www.colorado.edu/conted/computer.htm

For general certificate information, call Continuing Education at 303-492-5148.

COMPUTER APPLICATIONS COURSES, SUMMER 1999

THE COMPUTER SYSTEM ........................................................................... 26
Understanding Computers ..................................................................... 26
Networks ................................................................................................. 26
Operating Systems .............................................................................. 27
The Internet ............................................................................................ 28
Programming ......................................................................................... 29

THE PC SYSTEM ..................................................................................... 32
Office Packages .................................................................................... 33
Word Processing ................................................................................... 33
Spreadsheets .......................................................................................... 34
Presentations .......................................................................................... 35
Project Management ............................................................................. 35
Financial Management ......................................................................... 35

Databases .................................................................................................. 35
Desktop Publishing ................................................................................ 36
Computer Graphics .............................................................................. 36
Multimedia ............................................................................................... 37
Computer Aided Design ....................................................................... 37

THE MACINTOSH SYSTEM ..................................................................... 38
Word Processing .................................................................................... 38
Spreadsheets .......................................................................................... 38
Presentations .......................................................................................... 39
Integrated Software ............................................................................... 39
Financial Management .......................................................................... 39
Desktop Publishing ................................................................................ 39
Computer Graphics .............................................................................. 40
Multimedia ............................................................................................... 41
CACS 201
Concepts of Computer Information Technology
Examine the evolution of computers and their current role at the heart of today’s technology. Look at the Information Age including the Internet, Intranet and Extranet; the technologies that are changing the way we work and live; critical technology issues and decisions; and how to identify the best career opportunities in this exciting field. Prerequisite: CACS 100 Computer Literacy or equivalent.
Cherie Quaintance, B.A.
Section 100: Tuesdays, June 8-July 13, 6-9 p.m. 6 sessions. University Computing Center 123. $215.

CACS 202
Computer Applications Overview
Learn the various categories of software applications. Explore the features, functions and benefits of major commercial products through conceptual lectures, design discussions and demonstrations of word processing, spreadsheets, databases, graphics and other widely used applications. Find out how these tools can help improve the productivity of your computer. Prerequisite: CACS 100 Computer Literacy or equivalent.
Chris Mattson, B.S.
Section 100: Wednesdays, July 14-August 4, 6-9 p.m. 4 sessions. University Computing Center 124. $175.

CACS 204
Computer Systems Overview
Learn what you need to know to make informed decisions on computer systems. This course presents an extensive overview of many of the system hardware components you may need and the appropriate software to make them work. Topics include: the computer (speed, memory, disk size, display, I/O, etc.), computer bus (ISA, VESA, VLBI, PCI), printers (slow/fast, color or B/W, inkjet/laser), modems (14400/28800, computer/fax), networks (peer-to-peer, client-server), and multimedia. Prerequisite: CACP 203 Windows 95 Level I or CACM 100 Introduction to the Macintosh or equivalent.
Dale Heuer, MBA
Section 100: Mondays, June 7-28, 6-9 p.m. 4 sessions. University Computing Center 126. $175.

NETWORKS

CACS 220
Introduction to Networks
Networked computer systems are becoming more and more prevalent in today’s business environment. Making informed choices depends on understanding the basic concepts, grasping the “lingo” and accurately evaluating various configurations. This course also presents an overview of current network systems available on both DOS-based and Macintosh-based systems to small to medium sized businesses. Prerequisite: CACP 203 Windows 95 Level I or CACM 100 Introduction to the Macintosh or equivalent.
Valerie Parker, M.I.S.
Section 101: Saturdays, June 5 and 12, 9 a.m.-5 p.m. 2 sessions. University Computing Center 126.
Section 102: Saturdays, August 21 and 28, 9 a.m.-5 p.m. 2 sessions. University Computing Center 123.
All Sections: $205.

CACS 305
Computer Architecture
This course introduces the fundamentals of computer architecture, starting with the logical hierarchy. It also addresses how individual components, such as CPUs, memory, hard drives, video cards, network adapters and other peripherals interact with each other on various platforms. Hardware standards are examined for each of the platforms including PCI, Noubus, SCSI, IDE, and enhanced IDE. Prerequisite: CACS 204 Computer Systems Overview or equivalent.
Dave Bodnar, M.S.
Section 100: Thursdays, July 1-22, 6-9 p.m. 4 sessions. University Computing Center 123. $180.

Erik Kimm works in technical support for Sybase. He decided to take the UNIX course because he feels that “instead of hack and slash learning, it’s better to learn it right the first time.” He’s already planning to take the advanced class. Kristin Koslow is working on the Network Administration Certificate. A Liberal Arts major interested in networks and the UNIX platform, she feels this credential will make her a more marketable graduate. This way, she says, she’s gotten the strong liberal arts foundation she wants and the targeted vocational training she needs.
CACS 321
Network Administration
Explore one of the fastest growing areas in the computer industry. Learn a broad range of network management skills including managing user groups, network security, backups and other network resources. Develop effective troubleshooting techniques to minimize network problems. Prerequisite: CACS 220 Introduction to Networks or equivalent.
Jeff Forrest, M.A.
Section 100: Wednesdays, July 7-28, 6-9 p.m.
4 sessions. University Computing Center 123, $180.

CACS 323
Network Operating Systems
Examine the characteristics of network operating systems including multi-user access to files and resources, access rights, security, and file systems. These topics are explored through the examination of Novell, AppleShare and NT. Network topologies and hardware are also introduced. Prerequisite: CACS 321 Network Administration or equivalent. Required text: Using Networks, Derfler, CU Bookstore, UMC 10.
Willie Hutton
Section 100: Saturdays, July 17 and 24, 9 a.m.-4 p.m.
2 sessions. University Computing Center 123, $180.

CACS 304
Introduction to Windows NT 4.0 Administration
Richard Jones, M.A.
Section 100: Mondays and Wednesdays, July 19-28, 6-9 p.m.
4 sessions. University Computing Center 126, $350.

CACS 415
UNIX System Administration
This hands-on course examines in-depth the fundamental aspects of managing users, installing and troubleshooting software and hardware, and effective backup and security schemes. Advanced topics include an overview of network management as well as suggestions for effective system monitoring schemes, particular setup strategies and other "tricks of the trade." Prerequisites: CACS 211 Introduction to UNIX or equivalent and users level knowledge of file ownership, directories, permissions, basic commands and editors.
David Goldhammer
Section 100: Tuesdays and Thursdays, August 3-17, 6-9 p.m.
5 sessions. University Computing Center 126, $375.

CACS 424
Wide Area Networking Topics
This course presents an overview of Wide Area Network technologies that are commonly used at the University of Colorado at Boulder as well as other businesses. The course will cover WAN standards, such as PPP, SLIP, frame relay and V.24 modem protocols with hands-on configuration of systems for access to CU-Boulder modem pools and Internet service providers. Windows 95 and Macintosh configurations will be discussed. Prerequisite: CACS 323 Network Operating Systems or equivalent.
Valerie Parker, M.I.S.
Section 100: Tuesdays and Thursday, August 3-10, 6-9 p.m.
3 sessions. University Computing Center 123, $160.

CACS 303
Computer Operating Systems
Emphasizes the components and architecture including memory management, virtual memory, I/O subsystems and kernel implementations. Operating systems such as Macintosh, DOS/Windows, and UNIX derivatives will be examined. Prerequisite: CACS 204 Computer Systems Overview or equivalent.
Willa Hutton
Section 100: Wednesdays, June 9-30, 6-9 p.m.
4 sessions. University Computing Center 123, $180.

CACS 312
Hands-On UNIX
Learn the basics of the UNIX operating system for programming, Internet connectivity, and other daily tasks. The course covers UNIX fundamentals, such as the file and directory structure, essential commands, editors and shells. Advanced topics include customization of the user environment, basic shell programming, and an overview of the different versions of UNIX available on the market today. Prerequisite: CACS 100 Computer Literacy or equivalent.
Orrie Gartner, B.S.
Section 100: Thursdays, July 1-29, 6-9 p.m.
5 sessions. University Management Systems 001, $300.
OPERATING SYSTEMS

-CONTINUED

CACS 211
Introduction to UNIX
This is a course for anyone who needs to use UNIX, program in its environment, manage users, or obtain sufficient knowledge to evaluate it. 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.
Prerequisite: CACS 100 Computer Literacy or equivalent.
Ed Zucker, M.S.
Section 100: Mondays, June 7-July 26 (skip July 5), 6-9 p.m. 7 sessions. University Computing Center 123. $325.

THE INTERNET

Also see Premiere (5.0) Level I, CAMC 274 using the Macintosh lab, page 41.

CACS 230
Internet Fundamentals
Learn what today's information SuperHighway, the Internet, offers. Topics include an overview of its history and technology, access providers and ways to join the Internet. Basic applications such as electronic mail, USENET news, finding and accessing information and the World Wide Web, will be covered. Lecture includes information on both PC and Macintosh platforms.
Prerequisite: CACS 100 Computer Literacy or equivalent.
Beth Sigren, B.S.
Section 101: Mondays, June 7 and 14, 6-9 p.m. 2 sessions.
Section 102: Saturday, July 10, 9 a.m.-4 p.m. 1 session.
All Sections: University Computing Center 124. $125.

CACS 237
Doing Business on the Internet
"E-commerce": Learn the fundamentals for promoting and marketing your business on-line. Topics include conceptualizing, planning, organizing, and implementing a web based "storefront" distributed on the Internet. Case studies will be reviewed that demonstrate various strategies for successful management of security, payment, search listings, and software concerns as applied to marketing your product or service on the Web.
Prerequisite: CACS 230 Internet Fundamentals or equivalent.
Jeff Forrest, M.A.
Section 100: Mondays, July 12-26, 6-9 p.m. 3 sessions. University Computing Center 124. $160.

CACS 331
Internet Applications
This class will answer some of the most common questions asked by new Internet users. Subjects will include more efficient use of the World Wide Web and Internet Email, with hands-on application instruction and real-time Internet use. Less mainstream Internet services such as Telnet and FTP, and Internet security topics will also be discussed.
Prerequisite: CAPC 203 Windows 95 Level I, CAPC 205 Windows 98 Level I or CAMC 100 Introduction to the Macintosh or equivalent.
Karl Glasgow
Section 101: Wednesdays, June 23 and 30, 9 a.m.-2:30 p.m. 2 sessions. University Computing Center 126.
Section 102: Mondays, July 12-26, 6-9 p.m. 3 sessions. University Management Systems 001.
All Sections: $160.

CACS 232
From Layout to On-line
Learn basic design principles and apply them to web page design. No art background is required. Lecture style class with hands-on drawing. Topics include target audience, defining your goal, marketing perspective, flow-charting, graphics. Color theory is also discussed.
Prerequisite: CACS 230 Internet Fundamentals or equivalent. Required text: The Non-Designer's Web Book, Robin Williams and Hohn Tollett, University Bookstore, UMC 10.
Tim Meehan
Section 100: Wednesday, July 7, 9 a.m.-4 p.m. 1 session. University Computing Center 123. $130.

CACS 332
Introduction to Hypertext Mark-up Language (HTML)
Learn to author documents and applications for delivering information on the Internet World Wide Web. HTML 3.2 will be covered. Topics will include HTML basics, formatting tags, lists, links, and images, tables and image maps.
Prerequisite: CACS 331 Internet Applications or equivalent.
Beth Sigren, B.S.
Section 101: Saturdays, June 5 and 12, 9 a.m.-2:30 p.m. 2 sessions.
Karl Glasgow
Section 102: Wednesdays, July 7-21, 6-9 p.m. 3 sessions.
All Sections: University Management Systems 001. $160.

CACS 333
Hypertext Mark-up Language (HTML) (4.0) Update
The new features of HTML 4.0 as specified by the World Wide Web Consortium, as well as converting your existing page will be covered. Class will include hands-on exercises.
Prerequisite: CACS 332 Introduction to Hypertext Mark-up Language (HTML) or equivalent.
Michelle Munroe, B.S.
Section 100: Tuesday, August 3, 9 a.m.-4 p.m. 1 session. University Computing Center 126. $130.
CACS 432
Intermediate Hypertext Mark-up Language (HTML)
This class provides more details about HTML and developing interactive applications from the server. Topics include more formatting, interactive forms, frames, base references, absolute and relative addresses, Meta tags, client pull and Server push, security issues, search engines, and style sheets. Prerequisite: CACS 332
Introduction to Hypertext Mark-up Language (HTML) or equivalent.
Karl Glasgow
Section 101: Monday, June 28, 9 a.m.-4 p.m.
University Computing Center 126.
Michelle Munroe, B.S.
Section 102: Monday, August 2, 9 a.m.-4 p.m.
University Computing Center 124.
All Sections: 1 session. $150.

CACS 532
Advanced Hypertext Mark-up Language (HTML)
Learn the important points of updating and uploading your page. HTML Slicing, security, sound, video, quicktime movies and tips and tricks of HTML on the web will be covered.
Prerequisite: CACS 432 Intermediate Hypertext Mark-up Language (HTML) or equivalent.
Michelle Munroe, B.S.
Section 100: Wednesdays, August 4 and 11, 9 a.m.-2:30 p.m. 2 sessions. University Computing Center 124. $160.

CACS 436
JavaScript Language
Topics include programming techniques such as controlling program flow, defining and manipulating functions and variables. Hands-on exercises and practical applications include verifying forms, cookies, creating new pages dynamically, and mathematical operations.
Prerequisite: CACS 336 Introduction to JavaScript or equivalent.
Susan Keen, B.A.
Section 100: Mondays, Wednesdays, and Thursdays, August 9-19, 6-9 p.m. 6 sessions. University Management Systems 001. $225.

CACS 433
Web Server Administration
If you are interested in running a World Wide Web server, this class provides information on hardware, software, system configuration, security, logs and measurements, and virtual servers. You will also explore developing and testing Common Gateway Interface programs, and updating and changing web pages on other servers. This class is presented in a lecture format with live illustrations of administrative functions.
Prerequisite: CACS 332
Introduction to Hypertext Mark-up Language (HTML) or equivalent.
Art Smoot, M.S.
Section 100: Thursday, August 19, 9 a.m.-4 p.m. 1 session. University Computing Center 123. $160.

PROGRAMMING

CACS 240
Introduction to Programming
This is an excellent first course for students with minimal or no programming background who want to take Hands-On C++. Using an object-oriented approach, students will learn the logic patterns needed for structured programming in any language. They will work with if statements, loops and modularized code, and learn to write top-down, elegant code.
Prerequisite: CAPC 203 Windows 95 Level 1 or equivalent.
Required text: Karel ++, Patti, University Bookstore, UMC 10.
Cherry Stover, M.S.
Section 100: Saturdays, June 19 and July 10 (skip June 26 and July 3), 9 a.m.-4 p.m. and Mondays, Tuesday and Wednesday, June 21, 22, 23 and July 12, 6-9 p.m. 6 sessions. Bellm 247. $345.

Bob Anderson (left) and Don Dick work for Rocky Mountain Retail Systems. Both are experienced programmers. They are investigating use of UNIX for the business and know that the UNIX course could help them get up to speed more quickly. Bob Anderson says, "We're by no means beginners but, even if you pick up one or two things, it's well worthwhile." He adds that the course is well organized with "good content and a good instructor."
CACS 241
Introduction to Hands-On C++ (Web-Based Course)
A gentle introduction to C++ programming for those who have some background in object-oriented structured programming. This partially self-paced course covers basic I/O, conditionals, loops, and an introduction to functions and pointers. Those who are relatively new to programming should have some facility writing simple C++ code by the end of this class. Those with a strong programming background should have the coding of simple C++ programs “wired” and find the pursuit of the more arcane aspects of this language a simpler task. Prerequisite: CACS 240 Introduction to Programming or equivalent. Required text: C++ How to Program, Deitel & Deitel, University Bookstore, UMC 10.
Cherry Stover, M.S.
More information is available in the Distance Learning section, page 42.

CACS 341
Intermediate Hands-On C++
This course will cover pointers, arrays, strings, structures, and file handling. It is hands-on and partially self-paced. Students should be able to write a C program with functions before taking this class. Prerequisite: CACS 241 Introduction to Hands-On C++ or equivalent. Required text: C++ How to Program, Deitel & Deitel, University Bookstore, UMC 10.
Susan Ramirez, B.S.
Section 100: Saturdays, August 14 and 21, 9 a.m.-4 p.m. 2 sessions. University Management Systems 001. $205.

CACS 242
Introduction to Application Programming
A more intensive first programming course covering the techniques used in designing common algorithms to solve practical problems. Topics include flow of control, functions with parameter passing, data structures, abstract data types, objects, classes, arrays and file I/O. The course combines a lecture and self-paced laboratory format with hands-on programming using Turbo C++. No programming experience is required. Prerequisite: CACP 203 Windows 95 Level I or equivalent. Recommended text: Problem Solving With C++, Savitch, University Bookstore, UMC 10.
Tom Harrold, Ed.D.
Section 100: Tuesdays and Thursdays, June 1-24, 6-9 p.m. 8 sessions. University Management Systems 001. $345.

CACS 245
Introduction to Hands-On Visual Basic Programming
Visual Basic is a programming language that allows both beginning and experienced programmers to create custom Windows software without having to write out lines of code. The code is automatically generated as the standard Windows elements are inserted into the program by pointing and clicking with the mouse. The “Visual” (graphical) nature of this software makes it possible to create custom Windows programs relatively quickly and easily. Prerequisite: CACP 303 Windows 95 Level II or equivalent.
Michael Wyszynski, B.S.
Section 100: Saturdays, July 10-24, 9 a.m.-2:30 p.m. 3 sessions. University Computing Center 126. $310.

CACS 350
Intermediate Hands-On Visual Basic Programming
Explore topics designed to expose an intermediate programmer to a wide range of Visual Basic features. All major elements of the language are covered and concepts of an object-oriented, event-driven application are introduced. Implement a graphical interface that includes pull-down and pop-up menus; use a wide range of the Visual Basic language elements; code effective event procedures; interact with mouse events; and use a variety of standard and custom Visual Basic controls. Understand the range of applications that are possible. Prerequisite: CACS 245 Introduction to Hands-On Visual Basic Programming or equivalent.
Steve Kaminski, MSEE
Section 100: Saturdays, July 31-August 21, 9 a.m.-4 p.m. 4 sessions. University Computing Center 126. $325.

Kim Etkins is a research assistant in CU’s Stable Isotope Lab, where they do analyses on ice cores to study climate change. She also does a little web page editing, so she is enjoying Ed Zuckerberg’s Intro to UNIX class.
CACS 244
Introduction to Object-Oriented Programming in C++

C++ is an extension of the C language that supports object-oriented (O-O) programming. Focus is on the essential concepts underlying O-O programming (data abstraction, inheritance, polymorphism), and will show how these are supported in C++ (classes and objects, member functions, virtual functions). We will also cover features of C++ that are not directly related to O-O programming (constants, function overload—
ing, default arguments, inline functions).
Prerequisite: CACS 343 Intermediate/Advanced C Programming or equivalent.
Paul Jensen, M.S.
Section 100: Monday, Wednesday, Thursday, June 21-24, 6-9 p.m. and Saturday, June 26, 9 a.m.-4 p.m. 4 sessions. Stadium 140. $310.

CACS 246
A One-Day Tour of the Java Programming Language

This course cuts through the hype to give you the information to evaluate Java's suitability for your projects. Topics include: Java's popularity and origins, Java vs. JavaScript, Java vs. C++, the web and applets, portability, performance, suitable domains, compilation/execution models, acquiring Java, licensing, pricing, the language basics, O-O support, packages, interfaces, exceptions, dynamic class loading, threads and synchronization, inner classes, reflection, garbage collection, and native methods, libraries for I/O, data structures, networking, GUIs, applets, database connectivity, remote method invocation, security, standardization, implementation technologies, Java Beans, JINI, JavaSpaces, Java Server, JavaOS, JavaCC, JMAPI, JNDI, JTAPI, JFC, etc. Prerequisite: CACS 240 Introduction to Programming or intermediate experience with any common programming language. O-O experience helpful but not required. Language features will be presented at several levels to accommodate a diverse audience.
Carol J. Meier, M.S., and George Watson
Section 100: Saturday, June 5, 9 a.m.-4 p.m. 1 session. University Computing Center 123. $150.

CACS 345
Object-Oriented Design Patterns

Designers of object-oriented software have compiled many common architectural solutions to common problems, known as "design patterns". A pattern captures a recurring micro-architecture described in terms of how objects interact to perform a computation. Learning these patterns helps programmers evaluate, communicate, review, and implement software designs more effectively. They form a catalog of reusable architectural mechanisms (not a body of reusable source code).
Prerequisite: CACS 244 Introduction to Object-Oriented Programming in C++
George Watson
Section 100: Friday and Saturday, July 16 and 17, 9 a.m.-5 p.m. 2 sessions. Chemistry 131. $375.

CACS 445
Object-Oriented Analysis and Design

This workshop combines lecture and student participation to give you a firm grounding in the fundamental precepts of object-oriented analysis and design. This course will be useful for anyone wondering "how to find the Objects". Upon completion you will have an excellent foundation to get the most out of C++ and Java or other object-oriented languages. Prerequisite: CACS 244 Introduction to Object-Oriented Programming in C++ or CACS 247 Introduction to Object-Oriented Programming Using Java or familiarity programming with objects.
George Watson
Section 100: Saturday, July 31, 9 a.m.-4 p.m. 1 session. University Computing Center 123. $150.
CACS 247
Introduction to Object-Oriented Programming Using Java
This course introduces object-oriented programming to programmers familiar with procedural programming but not object-oriented concepts. Focus is on the essential concepts underlying O-O programming (data abstraction, inheritance and polymorphism) and how these are supported in Java (classes and objects, class extension, dynamic method binding). We also cover managing objects collections. Time permitting, we will look at some gratuitous graphics and other fun applet programming stuff! The format is lecture with lab assignments to be completed between classes. Prerequisite: CACS 243 Introduction to C for Programmers or equivalent. As Java derives much of its syntax from C, knowledge of the C language is assumed, and we will discuss the places Java differs from C. Recommended text: Just Java and Beyond, Peter van der Linden, University Bookstore, UMC 10.
Carol J. Meier, M.S.
Section 100: Mondays and Wednesdays, June 7-30, 6-9 p.m. 8 sessions. Economics 205. $390.

CACS 347
Intermediate Java Programming
This in-depth look at the Java programming language covers inheritance, packages and interfaces, exceptions, and the Java virtual machine. Details of the type system, compilation model and the dynamic character of the execution model are emphasized. Use of standard Java library packages is illustrated throughout the course. Programming exercises are provided for pursuit between classes. Prerequisite: CACS 247 Introduction to Object-Oriented Programming Using Java or fluency with object-oriented programming including inheritance and polymorphism. Recommended text: The Java Programming Language, Arnold & Gosling, University Bookstore, UMC 10.
Richard Wolniewicz, Ph.D.
Section 100: Tuesdays and Thursdays, July 6-29, 6-9 p.m. 8 sessions. Economics 205. $390.

CACS 447
Advanced Java Programming Language Topics
This course examines Java language features in depth. It presents the basic, coarse granularity, thread lifecycle model, with specific emphasis on portability considerations. This is followed by Java’s fine-grain thread synchronization model for concurrent programming. The complexity of the java.io package is tamed by understanding its symmetry and the patterns that it uses. Other topics may include: inner classes, thread cancellation, and weak references. Prerequisite: CACS 347 Intermediate Java Programming or equivalent experience with complex, multi-layered software systems.
David Rodenbaugh, B.A.
Section 100: Tuesdays, August 3-31, 6-9 p.m. 5 sessions. Economics 205. $345.

CACS 348
GUI Programming in Java
Through the Swing components in the 1.2 Java Foundation Classes, this intermediate Java course will help you develop GUIs for standalone applications and applets for web pages. Topics include: events, graphics, fonts, colors, layout management, frames & dialogs, menus, toolbars, icons, split panes, tabbed panes, scroll panes, advanced text handling, trees, and tables. Prerequisite: CACS 247 Introduction to Object-Oriented Programming Using Java or equivalent.
Greg Holling, B.S.
Section 100: Tuesdays and Thursdays, July 8-29, 9 a.m.-noon. 7 sessions. University Computing Center 123. $360.

CACS 449
2D and 3D Graphics with Java
We’ll use the Java programming language to explore 2D and 3D graphics concepts, and to draw some cool pictures. We’ll create simple and complex graphics, using both applets and applications, and discuss optimizing your graphics for use on the Internet. We’ll also discuss strengths and weaknesses of the Java graphics model. Prerequisite: CACS 348 GUI Programming in Java or equivalent.
Greg Holling, B.A.
Section 100: Saturday, August 14, 9 a.m.-4 p.m. 1 session. University Computing Center 123. $130.

THE PC SYSTEM

CAPC 203
Windows 95 Level 1
If you are entirely new to the Windows environment, this class will help you explore the many features of this friendly user interface. Learn how to locate, access and organize files, associate files with programs, and open, close and switch between applications. Other features examined include multitasking, properties, plug and play and multimedia. Prerequisite: CAPC 100 Computer Literacy or equivalent.
Chris Mattson, B.S.
Section 101: Monday and Wednesday, June 21 and 23, 6-9 p.m. 2 sessions.
Issy Killbride
Section 102: Wednesday, July 7, 9 a.m.-4 p.m. 1 session.
Beth Sigren, B.S.
Section 103: Saturday, August 7, 9 a.m.-4 p.m. 1 session.
All Sections: University Computing Center 124, $120.

Mike Chhor is a computer operation technician for Stanford Cooperative Institute for Research for Environmental Science. He’s taking intro to UNIX as part of an ongoing commitment to expand his skills.
OFFICE PACKAGES
CAPC 216
Microsoft Office 97 Tips and Tricks
Learn how to use the shortcut bar and integrate the office programs. Learn to use the accessories such as Outlook and The Binder that come with Office 97. Meet your personal Office Assistant. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Issy Kilbride
Section 100: Tuesday and Thursday, July 13 and 15, 9 a.m.-2:30 p.m. 2 sessions. University Computing Center 124. $155.

CAPC 217
Microsoft Outlook
Microsoft Outlook is a desktop information management program that helps you organize and share information on the desktop and communicate with others. Learn how to manage personal and business information such as email messages, appointments, contacts, tasks and files. Learn how to connect to the mail server and customize folders. Practice sending and receiving email, attaching and detaching files, and creating links to information on the World Wide Web. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Dale Heuer, MBA
Section 101: Saturday, July 17, 9 a.m.-4 p.m.
Section 102: Saturday, August 14, 9 a.m.-4 p.m.
All Sections: 1 session. University Computing Center 124. $120.

WORD PROCESSING
CAPC 213
Word 97 (8.0) Level I
Learn to create a simple document: printing, selecting, moving, copying and deleting text, changing fonts and point size and the bold, italics and underline features. Other features include inserting special characters, creating bulleted and numbered paragraphs, changing margins, setting tabs, using spell check and the help system. Explore the integrated features including extended filenames, desktop shortcuts, enhanced auto correct, Spell It and Find Fast. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Jeff Forrest, M.A.
Section 101: Mondays, June 14-28, 6-9 p.m. 3 sessions. University Management Systems 001.
Chris Mattson, B.S.
Section 102: Mondays, July 12 and 19, 9 a.m.-2:30 p.m. 2 sessions. University Computing Center 124.
All Sections: $155.
WORD PROCESSING
-CONTINUED

CAPC 313
Word 97 (8.0) Level II
Create professional looking documents by learning the difference between page layout and normal mode. Learn headers and footers, page numbering, and tables. Use the mail, envelope and label merge and sort functions. Work with toolbars and choose from over 30 professionally created templates. Prerequisite: CAPC 213 Word 97 (8.0) Level I or equivalent.
Chris Mattson, B.S.
Section 100: Monday, August 2, 9 a.m.-4 p.m. 1 session. University Computing Center 126. $120.

CAPC 413
Word 97 (8.0) Level III
Explore WordArt, draw, and picture toolbars to create various graphic and page design elements. Work with columns, drop caps, and watermarks. Learn how to link text boxes. Learn about section formatting to control document layout. Create template forms using text and date drop down, check-box, and number fields. Prerequisite: CAPC 313 Word 97 (8.0) Level II or equivalent.
Chris Mattson, B.S.
Section 100: Wednesday, August 11, 9 a.m.-4 p.m. 1 session. University Computing Center 126. $120.

CAPC 414
Word 97 (8.0) Special Topics
Create and use styles to automate repetitive tasks. Use built-in style headings to create a table of contents. Use section breaks to create multiple headers and footers. Explore cross-referencing and bookmarks, outlining, and footnotes. Learn how to link and embed objects such as Excel spreadsheets. Prerequisite: CAPC 313 Word 97 (8.0) Level II or equivalent.
Chris Mattson, B.S.
Section 100: Wednesday, August 18, 9 a.m.-4 p.m. 1 session. University Computing Center 126. $120.

SPREADSHEETS

CAPC 234
Excel 97 (8.0) Level I
Learn basic spreadsheet design and construction, file management, formulas, functions, worksheet editing, formatting and printing. Explore the integrated features of this version including extended filenames, easier number formatting, and enhanced drag and drop. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Chris Mattson, B.S.
Section 101: Monday and Wednesday, June 28 and 30, 6-9 p.m. 2 sessions.
Peggy Purvis
Section 102: Wednesday, July 14, 9 a.m.-4 p.m. 1 session.
All Sections: University Computing Center 124. $120.

CAPC 334
Excel 97 (8.0) Level II
Use the search and replace function, the date function, hiding columns and protecting cells, using absolute referencing and ranges. Explore the wealth of graphic features! Learn about integrated features such as desktop shortcuts, and templates for data tracking, expense tracking, and financial planning. Prerequisite: CAPC 234 Excel 97 (8.0) Level I or equivalent.
Peggy Purvis
Section 100: Wednesday, July 28, 9 a.m.-4 p.m. 1 session. University Computing Center 124. $120.

CAPC 434
Excel 97 (8.0) Level III
Use the database capabilities of sort, filter, advanced filter and subtotals. Use Pivot tables and learn to write and edit macros to automate repetitive tasks. As time allows, popular functions such as IF, LOOKUP, ROUND and others will be covered. Prerequisite: CAPC 334 Excel 97 (8.0) Level II or equivalent.
Peggy Purvis
Section 100: Tuesday, August 3, 9 a.m.-4 p.m. 1 session. University Computing Center 124. $120.

CAPC 436
Excel 97 (8.0) Special Topics
An introduction to some of the most powerful tools available with Excel. You will get a basic introduction to Visual Basic to build customized functions and create input boxes. Learn how the advanced data analysis tools like Goal Seek and Solver work. Learn how to create forms, display data using advanced charting features, and generate maps with the data map tool. Prerequisite: CAPC 334 Excel 97 (8.0) Level II or equivalent.
Jeff Forrest, M.A.
Section 100: Tuesdays, August 3 and 10, 6-9 p.m. 2 sessions. University Management Systems 001. $120.

CAPC 437
Visual Basic Programming Using Excel
Visual Basic is the powerful macro programming language used to build customized worksheets. Gain a basic understanding by learning about object properties and methods, understanding scope, scope levels, how to interpret Visual Basic syntax, proper naming procedures, arguments, variables, and data types. Learn how to record and run macros, edit macrocode, and write basic procedures. Prerequisite: CAPC 436 Excel 97 (8.0) Special Topics or equivalent.
Jeff Forrest, M.A.
Section 100: Tuesday and Thursday, August 17 and 19, 9 a.m.-4 p.m. 2 sessions. University Computing Center 124. $175.

Amy Bailey is a network administrator with Access Health Group, Inc. in Broomfield, a nurse triage company operating worldwide. She's taking Intro to UNIX "to expand my skills."
PRESENTATIONS

CAPC 221
PowerPoint 97 (8.0)
Learn to create, edit and print exciting presentations. Enhance various slides with ClipArt drawings. Create bar or pie graphs to represent your numeric data and bullet and text charts with snazzy fonts and other attributes. Create sleek organizational charts, work with different color schemes, use the “Pick a Look” Wizard and more! Prerequisite: CAPC 213 Word 97 (8.0) Level I or equivalent.
Carol Pollard, Ph.D.
Section 100: Thursdays, July 22 and 29, 9 a.m.-2:30 p.m. 2 sessions. University Computing Center 124. $155.

PROJECT MANAGEMENT

CAPC 242
QuickBooks for Windows 95 (6.0)
An excellent accounting system solution for small businesses. Learn to create a chart of accounts, client and vendor lists, and custom lists. Produce invoices, purchase orders, special reports and other reports specific to your type of business. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Pat Melton, M.A.
Section 100: Saturday, June 19, 9 a.m.-4 p.m. 1 session. University Computing Center 126. $120.

CAPC 243
Project 98 for Windows 95
Learn how you can benefit from using Microsoft Project as an automated tool for planning and tracking your project. This course introduces you to the concepts of project management and how to create a schedule for your project by developing a task list, defining dependencies and assigning resources. You will also learn to create reports showing project progress and plan discrepancies. Prerequisite: CAPC 234 Excel 97 (8.0) Level I or CAMC 231 Excel for the Macintosh (Office 98) Level I or equivalent.
Ulla Merz, Ph.D.
Section 100: Monday and Tuesday, July 26 and 27, 9 a.m.-4 p.m. 2 sessions. University Computing Center 124. $175.

CAPC 251
FileMaker Pro for Windows 95 (4.1) Level I
Create a variety of databases, formats and merge documents including form generation, field formatting, numeric calculations and summary fields. Learn how to layout graphic screens. Auto entry configuration and report options will also be explored. Other features include sorting, finding, the use of scripting, buttons, and exporting files for merge purposes. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Nancy Fladstol, B.A.
Section 100: Monday, July 12, 9 a.m.-4 p.m. 1 session. University Computing Center 126. $120.

CAPC 255
Access 97 (8.0) Level I
Create and edit databases, manipulate data elements, and create summary reports in a few easy-to-learn steps. Build on the principles of good data management to enter, organize, access and report virtually unlimited amounts of information. Explore the integrated features including extended filenames, desktop shortcuts, intelligent tables, and improved form and report wizards. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Issy Kilbride
Section 101: Monday and Wednesday, June 14 and 16, 9 a.m.-4 p.m.
Chris Mattson, B.S.
Section 102: Tuesday and Thursday, July 13 and 15, 9 a.m.-4 p.m.
Section 103: Mondays, August 9 and 16, 9 a.m.-4 p.m.
All Sections: 2 sessions. University Computing Center 126. $185.

FINANCIAL MANAGEMENT

CAPC 241
Quicken 98 for Windows 95
Learn to manage money, keep a budget, simplify year-end tax preparation, manage rentals, track investments, bank accounts and credit card use. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Jeff Forrest, M.A.
Section 100: Tuesday and Thursday, June 15 and 17, 6-9 p.m. 2 sessions. University Computing Center 126. $120.
CAPC 355
Access 97 (8.0) Level II
Use macros in database design as well as enhanced query form and report design. Learn to create forms and reports that are customized for your personal and business needs.
Prerequisite: CAPC 255 Access 97 (8.0) Level I or equivalent.
Chris Mattson, B.S.
Section 101: Wednesday, July 7, 9 a.m.-4 p.m.
Section 102: Thursday, August 19, 9 a.m.-4 p.m.
All Sections: 1 session. University Computing Center 126. $130.

CAPC 357
Database Design Concepts
Learn insights into the processes of planning a database. The class introduces the concepts of "Normalization" and the five normal forms. Emphasis is placed on the use of indexing and keys to relate tables of data together into a balanced system that can be used for data input and maintenance. Access for Windows and Excel for Windows will be the application software for lab exercises. Prerequisites: CAPC 255 Access 97 (8.0) Level I or equivalent and a good working knowledge of the Windows 95 interface. A basic understanding of Excel for Windows is recommended.
Chris Mattson, B.S.
Section 100: Thursdays, July 22 and 29, 9 a.m.-4 p.m. 2 sessions. University Computing Center 126. $185.

CAPC 271
PageMaker for Windows 95 (6.5) Level I
Explore page layouts, creative formats, and type text styles. We cover innovative type management and style issues, building art into page construction, and using scanner technology in graphics and text for designing newsletters, restaurant menus or financial statements.
Prerequisites: CAPC 203 Windows 95 Level I or equivalent and some experience with a word processing package is recommended.
Bruce Frehner, M.A.
Section 100: Saturdays, June 19 and 26, 9 a.m.-5 p.m. 2 sessions. University Computing Center 124. $205.

CAPC 273
QuarkXPress for Windows 95 (4.0) Level I
Create page layouts quickly and easily, manipulate graphics and text in basic page composition functions that are easy to understand and use. The class addresses issues of typography, graphic image file formats and camera-ready production. Prerequisite: CAPC 213 Word 97 (8.0) Level I or equivalent.
Becky Woulfe, B.F.A.
Section 100: Tuesday and Thursday, June 15 and 17, 9 a.m.-5 p.m. 2 sessions. University Computing Center 126. $205.

CAPC 373
QuarkXPress for Windows 95 (4.0) Level II
Focus will be on professional use of this software and how to exploit its unique features and precision in higher-end, pre-press graphics production. Fine typography, graphic image manipulation and control, process and spot color separation, publication design and management as well as some favorite tricks will be discussed. Prerequisite: CAPC 273 QuarkXPress for Windows 95 (4.0) Level I or equivalent.
Becky Woulfe, B.F.A.
Section 100: Monday and Wednesday, July 19 and 21, 9 a.m.-5 p.m. 2 sessions. University Computing Center 126. $205.

CAPC 280
CorelDRAW! for Windows 95 (8.0) Level I
This course gives you the ability to do complex drawings such as blends, fitting text to a curve, and other special effects. Learn how to make buttons, icons, and drawings for web applications. Learn how to import and export file types with CorelDRAW! Expand your ability to use graphics to achieve professional looking illustrations. Explore the power and possibilities of this new version. Prerequisite: CAPC 280 Windows Computer Art Level I, or equivalent.
Jerry Reynolds, MSE
Section 100: Fridays, July 9 and 16, 9 a.m.-4 p.m. 2 sessions. University Computing Center 126. $175.

CAPC 281
Windows Computer Art Level I
This course is an overview of the various Windows based graphic programs. This course will cover drawing programs in Windows and Microsoft Works. It will include an overview of illustration applications such as Adobe Illustrator and CorelDRAW! Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Jerry Reynolds, MSE
Section 100: Tuesday and Thursday, June 22 and 24, 6:30 p.m. 2 sessions. University Computing Center 126. $130.
CAPC 282
Photoshop for Windows 95 (5.0) Level I
Learn to use the premier photographic editing application. Learn basic scanning techniques and how best to capture your photos. The basic skills of photo editing are taught in this course. Special attention will be given to web site requirements. Prerequisite: CAPC 280 Windows Computer Art Level I or equivalent.
Jerry Reynolds, MSE
Section 100: Tuesdays and Thursdays, July 6-15, 6-9 p.m. 4 sessions. University Computing Center 126. $185.

CAPC 282
Photoshop for Windows 95 (5.0) Level II
Learn advanced photo editing techniques. Sharpen your skills on scanning and image editing. Edit your photos and drawings to achieve professional quality work. Learn prepress and production techniques. Learn requirements for web site applications. Prerequisite: CAPC 282 Photoshop for Windows 95 (5.0) Level I or equivalent.
Jerry Reynolds, MSE
Section 100: Thursdays, August 5 and 12, 9 a.m.-4 p.m. 2 sessions. University Computing Center 126. $185.

CAPC 283
Illustrator for Windows 95 (7.0) Level I
Create and edit lines and shapes, combine them into full color illustrations and add stunning text effects. Work can be printed as proofs or separations, or uploaded for web applications. Learn how to take photos from Adobe Photoshop and integrate them into illustrations using Adobe Illustrator. Prerequisite: CAPC 280 Windows Computer Art Level 1, or equivalent.
Jerry Reynolds, MSE
Section 100: Tuesdays, July 20 and 27, 9 a.m.-4 p.m. 2 sessions. University Computing Center 126. $185.

MULTIMEDIA

See courses on page 41 under same section heading. These applications are consistent on both PC and Macintosh platforms.

COMPUTER AIDED DESIGN

CAPC 161
Beginning Computer Aided Design
This stand-alone class covers the basics of systems start-up and a review of potential microcomputer-based applications for anyone interested in drafting and design. Topics include an overview of CAD applications in engineering, design, drafting and architecture; third party software, hardware and peripherals, and managing CAD system issues. Prerequisite: CAPC 203 Windows 95 Level I or equivalent.
Michael George, B.A.
Section 100: Tuesday and Thursday, June 1 and 3, 6-9 p.m. 2 sessions. University Computing Center 124. $125.

WAYS TO
REGISTER
see page 46

CAPC 261
Computer Aided Design for Windows (R14) Level I
Focus on the 2D drafting features of AutoCAD with an emphasis on setting up new drawings (including units, limits, scaling, and layers), basic drawing construction and modification techniques and the production of hardcopy. You will also learn how to use prototype drawings and blocks to complete new projects with much less effort! Prerequisite: CAPC 203 Windows 95 Level I or equivalent. Some understanding of drafting concepts/techniques is helpful.
David Kingsley
Section 100: Tuesdays and Thursdays, June 8- July 1, 6-9 p.m. 8 sessions. University Computing Center 124. $400.

CAPC 361
Computer Aided Design for Windows (R14) Level II
Topics include semiautomatic dimensioning, dimensioning variables, isoplanar grids, prototype drawings, highly useful but less known commands, compatibility with other software, external references, symbol libraries, cross hatching, attributes, and advanced file management. Prerequisite: CAPC 261 Computer Aided Design for Windows (R14) Level I or equivalent. Required text: A Tutorial Guide to AutoCAD Release 14, Lockhart, University Bookstore, UMC 10.
David Kingsley
Section 100: Tuesdays and Thursdays, July 6-22, 6-9 p.m. 6 sessions. University Computing Center 124. $315.

Steven Bertram works in telecommunications and thought that the Intro to UNIX course "would be good for me."
COMPUTER AIDED DESIGN - CONTINUED

CAPC 362
Computer Aided Design for Windows (R14) 3D Modeling
This course will introduce the AutoCAD 2D user to the fundamentals of three dimensional modeling in AutoCAD 14. It will provide general skills common to all disciplines. The concepts of wireframe, surface and solid modeling will be discussed. The student will create 3D models and generate drawing documents from the models. The course will not include the Designer, AutoSurf, or Mechanical Desktop modules but will provide a valid foundation for future study. Prerequisite: CAPC 361 Computer Aided Design for Windows (R14) Level II or equivalent. Required text: A Tutorial Guide to AutoCAD Release 14, Lockhart, University Bookstore, UMC 10.
David Kingsley
Section 100: Tuesdays and Thursdays, July 27-August 5, 6-9 p.m. 4 sessions. University Computing Center 124. $290.

THE MACINTOSH SYSTEM

CAPC 461
Computer Aided Design for Windows (R14) Level III
Use techniques, processes and advanced command usage to facilitate project coordination. Topics include disk management, layering and dimensioning standards, basic menu customization, document tracking, and archiving and retrieval practices. Information to assist in the development of operational standards for departments and the exchange of data with other sources will also be covered. Prerequisites: CAPC 361 Computer Aided Design for Windows (R14) Level II or equivalent and some professional AutoCAD experience. Required text: A Tutorial Guide to AutoCAD Release 14, Lockhart, University Bookstore, UMC 10.
Michael George, B.A.
Section 100: Tuesdays and Thursdays, August 10-19, 6-9 p.m. 4 sessions. University Computing Center 124. $290.

THE INTERNET

Design Techniques for Web Sites using the Macintosh lab. See CACS 334, page 29.

WORD PROCESSING

CAMC 211
Word for Macintosh (Office 98) Level I
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 including editing, text/graphic interfaces, and use of key features. Prerequisite: CAMC 100 Introduction to the Macintosh or equivalent. Chris Mattson, B.S.
Section 100: Tuesdays and Thursdays, June 8-17, 6-9 p.m. 4 sessions. University Computing Center 127. $155.

CAMC 311
Word for Macintosh (Office 98) Level II
Learn how to use styles and templates to simplify formatting; tables and columns to structure documents and graphics; and desktop publishing features to create complex, professional looking documents. Prerequisite: CAMC 211 Word for Macintosh (Office 98) Level I or equivalent. Wendy Reichman, M.Ed.
Section 100: Thursday, July 22, 9 a.m.-4 p.m. 1 session. University Computing Center 127. $120.

SPREADSHEETS

CAMC 231
Excel for Macintosh (Office 98) Level I
Learn the basics of spreadsheet design, including editing, formatting and printing a worksheet. Study formulas and explore other powerful features. Prerequisite: CAMC 100 Introduction to the Macintosh or equivalent. J. Burke Taft, M.Ed.
Section 100: Mondays, June 7 and 14, 6-9 p.m. 2 sessions. University Computing Center 127. $120.

CAMC 331
Excel for Macintosh (Office 98) Level II
Expand upon the formulas and functions used in this introductory course by learning to build a database, explore charting and begin to build macros. Prerequisite: CAMC 231 Excel for the Macintosh (Office 98) Level I or equivalent. J. Burke Taft, M.Ed.
Section 100: Wednesday, July 21, 9 a.m.-4 p.m. 1 session. University Computing Center 127. $120.
CAMC 431  
Excel for Macintosh (Office 98) Level III  
Explore "what if" scenarios by writing more advanced macros, apply more advanced functions and look at some of the most recently added features of this software. Prerequisite: CAMC 331 Excel for Macintosh (Office 98) Level II or equivalent.  
J. Burke Taft, M.Ed.  
Section 100: Thursday, August 12, 9 a.m.-4 p.m.  
1 session. University Computing Center 127.  
$120.

PRESENTATIONS

CAMC 221  
PowerPoint for Macintosh (Office 98)  
Learn to create, edit and print exciting presentations! Enhance various slides with ClipArt drawings. Create bar or pie graphs to represent your numeric data and bullet and text charts with snazzy fonts and other attributes. Create sleek organizational charts, work with different color schemes, use the "Pick a Look" Wizard and more! Prerequisite: CAMC 211 Word for Macintosh (Office 98) Level I or equivalent.  
Chris Mattson, B.S.  
Section 100: Wednesday and Friday, June 23 and 25, 9 a.m.-2:30 p.m.  
2 sessions. University Computing Center 127.  
$155.

INTEGRATED SOFTWARE

CAMC 205  
AppleWorks for Macintosh (5.0)  
Formerly known as ClarisWorks, this software package uses an integrated approach of combining software applications such as word processing, spreadsheets, databases, and graphics for a variety of needs. This introductory course will provide an overview of each area. Something for everyone, get the Works! Prerequisite: CAMC 100 Introduction to the Macintosh or equivalent.  
Wendy Rochman, M.Ed.  
Section 100: Mondays, June 21 and 28, 9 a.m.-2:30 p.m.  
2 sessions. University Computing Center 127.  
$155.

FINANCIAL MANAGEMENT

See CAPC 241 Quicken for Windows 95 using the PC lab, page 35. This application is consistent on both platforms.

DESKTOP PUBLISHING

See CAPC 271 and 371 PageMaker for Windows 95 (6.5) Levels I and II, page 36. These applications are consistent on both platforms.  

CAMC 273  
QuarkXPress for Macintosh (4.0) Level I  
Create page layouts quickly and easily, manipulate graphics and text in basic page composition functions that are easy to understand and use. The class addresses issues of typography, graphic image file formats and camera-ready production. Prerequisite: CAMC 211 Word for Macintosh (Office 98) Level I or equivalent. Recommended text: The Official Adobe Print Publishing Guide. Ottrell, Adobe Press, University Bookstore, UMC 10.  
Tim Meehan  
Section 101: Tuesdays, June 22-July 20, 6-9 p.m.  
5 sessions.  
Becky Woulfe, B.F.A.  
Section 102: Tuesday and Thursday, July 27 and 29, 9 a.m.-5 p.m.  
2 sessions.  
All Sections: University Computing Center 127.  
$205.

CAMC 373  
QuarkXPress for Macintosh (4.0) Level II  
Focus will be on professional use of this software and how to exploit its unique features and precision in higher-end, pre-press graphics production. Fine typography, graphic image manipulation and control, process and spot color separation, publication design and management as well as some favorite tricks will be discussed. Prerequisite: CAMC 273  
QuarkXPress for Macintosh (4.0) Level I or equivalent. Recommended text: Designing Business. Mok, University Bookstore, UMC 10.  
Tim Meehan  
Section 100: Mondays, August 2 and 9, 9 a.m.-5 p.m.  
2 sessions. University Computing Center 127.  
$205.

CAMC 473  
QuarkXPress for Macintosh (4.0) Level III  
Automate production using tools like multiple master-pages, stylesheets and all the floating palettes and keyboard shortcuts. Watch QuarkXPress automatically create documents using AppleScript. Learn to create your own diverse collection of custom designs and production tricks. Prerequisite: CAMC 373  
QuarkXPress for Macintosh (4.0) Level II or equivalent. Recommended text: Designing Business. Mok, University Bookstore, UMC 10.  
Tim Meehan  
Section 100: Saturday, August 14, 9 a.m.-4 p.m.  
1 session. University Computing Center 127.  
$150.

Terri Goon works for Veterinary Centers of America based in Santa Monica. She says the company is switching to a UNIX version of the software they're using so she needs to become more familiar with the platform. She says the course is "great—it's been very helpful."
**CAMC 280**  
**Macintosh Computer Art Level I**  
Spray cans, paint brushes and buckets of paint appear and disappear. And no mess to clean up when you're done! Discover electronic graphic design with object-oriented and bit-mapped design capabilities. With training in scanning and laser printing plus instruction in aesthetics of electronic imaging, you'll be ready to make your own camera-ready images. **Prerequisite:** CAMC 100 Introduction to the Macintosh or equivalent.  
Barry Ratliff, M.F.A.  
Section 100: Saturday, June 12, 9 a.m.-4 p.m.  
1 session. University Computing Center 127. $130.

**CAMC 380**  
**Macintosh Computer Art Level II**  
Using your basic Macintosh art skills, we will focus on creativity and experimentation as we create your personal or corporate logo. A flatbed scanner and laser printer will be tools that transform your ideas and materials into a final product. Service bureau output (linotronic and color) are discussed. The emphasis of this class is on individual pacing and problem solving. Bring plenty of photos, drawings, and ideas. **Prerequisite:** CAMC 280 Basic Macintosh Computer Art Level I or equivalent.  
Barry Ratliff, M.F.A.  
Section 100: Saturday, July 10, 9 a.m.-4 p.m.  
1 session. University Computing Center 127. $130.

**CAMC 282**  
Photoshop for Macintosh (5.0) Level I  
Learn to use "standard photographic manipulation" of electronic images and how to create special effects using filters, paint tools, masking and image overlay. In addition, investigate output options such as color proofs and separations.  
**Prerequisite:** CAMC 280 Macintosh Computer Art Level I or equivalent. **Recommended text:** Adobe Photoshop 5.0 Classroom in a Book, University Bookstore, UMC 10.  
Becky Woulfe, B.F.A.  
Section 101: Tuesday and Thursday, June 22 and 24, 9 a.m.-4 p.m.  
Rick Hoyt, B.S.  
Section 102: Saturdays, July 17 and 24, 9 a.m.-4 p.m.  
All Sections: 2 sessions. University Computing Center 127. $185.

**CAMC 382**  
Photoshop for Macintosh (5.0) Level II  
Expand your knowledge of this application by gaining a greater understanding of its use from a production point of view. Learn pre-press techniques and quality control that can help avoid costly mistakes and time consuming duplication.  
**Prerequisite:** CAMC 282 Photoshop for Macintosh (5.0) Level I or equivalent. **Recommended text:** Official Adobe Photoshop 5.0 Studio Techniques, Willmore, University Bookstore, UMC 10.  
Tim Meehan  
Section 100: Wednesdays and Thursdays, August 4-12, 6-9 p.m.  
4 sessions. University Computing Center 127. $185.

**CAMC 482**  
Photoshop for Macintosh (5.0) Level III  
If you have some knowledge of Photoshop and want to hone your skills creatively, you will enjoy this class. A weekly assignment will be looked at in class and each class member's approach to the problem will be shared - all will benefit! **Prerequisite:** CAMC 382 Photoshop for Macintosh (5.0) Level II or equivalent. You must have access to a Macintosh with Photoshop installed and have some experience with software applications. It isn't necessary to be an expert, though! **Recommended text:** Official Adobe Photoshop 5.0 Studio Techniques, Willmore, University Bookstore, UMC 10.  
Tim Meehan  
Section 100: Monday and Wednesday, August 16 and 18, 9 a.m.-4 p.m.  
2 sessions. University Computing Center 127. $185.

**CAMC 283**  
Illustrator for Macintosh (7.0) Level I  
Create and edit lines and shapes, combine them into full color illustrations and add stunning text effects. Work can be printed as proofs or separations on paper or film, exported as EPS documents to page layout programs or taken directly into Adobe Photoshop. **Prerequisite:** CAMC 280 Macintosh Computer Art Level I or equivalent. **Recommended text:** Adobe Illustrator for Macintosh Classroom in a Book, Adobe Press, University Bookstore, UMC 10.  
Rick Hoyt, B.S.  
Section 100: Tuesdays, June 29 and July 6, 9 a.m.-4 p.m.  
2 sessions. University Computing Center 127. $185.

**CAMC 383**  
Illustrator for Macintosh (7.0) Level II  
Explore advanced techniques and address pre-press issues to avoid costly redos and improve work time productivity. Gain a greater understanding of fonts and output parameters and broaden your ability to work with other graphics applications.  
**Prerequisite:** CAMC 283 Illustrator for Macintosh (7.0) Level I or equivalent. **Recommended text:** Adobe Illustrator for Macintosh Classroom in a Book, Adobe Press, University Bookstore, UMC 10.  
Rick Hoyt, B.S.  
Section 100: Wednesday and Friday, July 14 and 16, 9 a.m.-4 p.m.  
2 sessions. University Computing Center 127. $185.
CAMC 483  
Illustrator for Macintosh (7.0) Level III  
This class takes you into a new and advanced world of power-user skills and techniques. Learn all the most powerful productivity hints, tips and techniques for today's demanding art creation environment. New tools, new filters and new features are combined in this latest version making it the most powerful, reliable and comprehensive PostScript drawing program on the market today. Prerequisite: CAMC 383 Illustrator for Macintosh (7.0) Level II or equivalent. Recommended text: Adobe Illustrator for Macintosh Classroom in a Book, Adobe Press, University Bookstore, UMC 10. Tim Meehan  
Section 100: Tuesday, August 10, 9 a.m.-4 p.m. 1 session. University Computing Center 127. $130.

CAMC 294  
Multimedia Authoring  
Explore the interactive process of program design, authoring, and delivery techniques. It will introduce CD-ROM technology techniques that can be accomplished using the software packaged in Macromedia Director Studio 6. The programs introduced are Extreme 3D, ResEdit, Sound Studio, and Deck 2, all of which are bundled with Macromedia Studio. Prerequisite: CAMC 291 Macromedia Director (6) Level I or equivalent. William Busch  
Section 100: Monday and Wednesday, July 26 and 28, 9 a.m.-4 p.m. 2 sessions. University Computing Center 127. $185.

CAMC 392  
Digital Video  
Put a little pizzazz in your multimedia presentations. Learn how to use a digitizing compression board for integrating video, audio and graphics into a single project. Cross platform issues are also considered. Final project consists of creating a CD-ROM. Software used is Adobe Premiere. Prerequisite: CAMC 294 Multimedia Authoring or equivalent. William Busch  
Section 100: Saturday, August 7, 9 a.m.-4 p.m. 1 session. University Computing Center 127. $150.

CAMC 295  
Premiere (5.0)  
Step into digital editing. Create dynamic video or film, incorporating video, audio, stills, titles and graphics. Include special effects using filters, transitions, transparency, and motion. Class will cover file management, NTSC and cross platform and web output issues. Prerequisite: CAMC 211 Word for Macintosh (Office 98) Level 1 or equivalent. Recommended text: Adobe Premiere 5.0 Classroom in a Book, Adobe Press, University Bookstore, UMC 10. Tim Meehan  
Section 100: Tuesday and Thursday, August 3 and 5, 9 a.m.-4 p.m. 2 sessions. University Computing Center 127. $205.

CAMC 291  
Macromedia Director (6) Level I  
Learn the production of interactive multimedia presentations, including animation, still graphics, voice and text and video. A host of other graphics and sound software will be used. Emphasis will be on high quality presentations and finished productions that will run on both Macintosh and PC platforms. Prerequisite: CAMC 280 Macintosh Computer Art Level I or equivalent. J. Burke Taft, M.Ed.  
Section 100: Mondays and Tuesdays, July 26-August 5, 6-9 p.m. 4 sessions. University Computing Center 127. $185.

CAMC 391  
Macromedia Director (6) Level II  
Learn to create a storyboard, build an interface and develop a presentation that includes still pictures, animation, voice, text, and Quicktime movies. You will have an opportunity to share ideas and solve problems with other students. Prerequisite: CAMC 291 Macromedia Director (6) Level I or equivalent. J. Burke Taft, M.Ed.  
Section 100: Mondays and Tuesdays, August 9-17, 6-9 p.m. 4 sessions. University Computing Center 127. $185.
DISTANCE LEARNING

CU INTRODUCES THE VIRTUAL CAMPUS, SO YOU CAN BE HERE NO MATTER WHERE YOU ARE.

As part of your academic planning, we invite you to consider Distance Learning—a variety of solutions that give you access to CU-Boulder without coming to campus. These alternative formats allow you to work at your own pace, on your own schedule, wherever you are—whether it’s half way down the street or half way around the world. Distance Learning courses are as demanding as those you’ll find on campus. But they represent a strategic alternative that enables motivated learners to pursue their academic goals.

Consider Distance Learning. For enrichment. For credit. For completion of short-term courses that meet targeted business and professional needs. For work on accredited degree programs. Options are growing all the time. Watch this space for news.

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

CATECS delivers graduate engineering courses directly to your worksite via live microwave broadcasts with two-way audio interaction. Videotapes of past courses are also available for credit and noncredit. Master’s degree programs are available in Aerospace Engineering, Computer Science, Electrical and Computer Engineering, Engineering Management, and Telecommunications. For more information on the CATECS option, call 303-492-6531 or visit the web site at www.colorado.edu/CATECS

INDEPENDENT LEARNING
...VIA THE INTERNET.

From any computer with an Internet connection, you have access to more than 25 CU-Boulder web based courses. Complete assignments, communicate with your instructor and your classmates on the course bulletin board and take tests at times that fit your schedule. Courses are offered both as self-paced, with 12 months to complete, and as term based courses following a real calendar. Listed below are a few of the courses available. The full list is available at www.colorado.edu/ww

ANTH 2070-3 Bones, Bodies and Disease, Section 640.

PSYC 2012-3 Biological Psychology I, Section 580. Term based: June 1-August 6, 1999.

SLHS 4030/5030-3 The Linguistic Structure of American Sign Language, Section 580. Term based: June 1-August 6, 1999

UWRP 3020-3 Topics in Writing: The Catcher in the Rye, Section 580. Term based: June 1-August 6, 1999.

UWRP 3020-3 Topics in Writing: Culture, Section 581. Term based: July 6-August 6, 1999.

...VIA CORRESPONDENCE.

An excellent solution for disciplined independent learners. More than 85 university credit correspondence courses are available. Professional real estate licensing and high school correspondence courses are also available. Call 303-492-8757 (toll free 800-331-2801) to request the bulletin.

COMPUTER APPLICATIONS:
WEB BASED COURSE

All you need to successfully complete this course is an Internet connection, an email account and Microsoft Internet Explorer 4.0 or Netscape Navigator 4.05 or later. You must register two weeks prior to the course start date to receive the required software and to participate in the on-line orientation. Information on how to register and other computer applications courses can be found on pages 23 to 41.

CACS 241
Introduction to Hands-On C++

A gentle introduction to C++ programming for those who have some background in object-oriented structured programming. This partially self-paced course covers basic I/O, conditionals, loops, and an introduction to functions and pointers. Those who are relatively new to programming should have some facility writing simple C++ code by the end of this class. Those with a strong programming background should have the coding of simple C++ programs "wired" and find the pursuit of the more arcane aspects of this language a simpler task. Prerequisite: CACS 240 Introduction to Programming or equivalent. Required text: C++ How to Program, Deitel & Deitel, University Bookstore, UMC 10. Charly Stover, M.S.
Section 10W: Class meets on-line Thursday, July 15-Wednesday, August 11. $345.

Continuing Education is proud of its commitment to provide access to all students through its distance programs. For information on other programs available at the University of Colorado, visit the web site at www.cuonline.edu

WAYS TO REGISTER
see page 46
ADDITIONAL OPPORTUNITIES

ACCESS PROGRAM
Want to take a credit course at CU-Boulder during the day? Perhaps you're interested in a particular class for personal or professional development or plan to enroll in a degree program in the future. Each Fall and Spring, the ACCESS Program (formerly SAVE) enables nondegree students to enroll in on-campus undergraduate or graduate courses. Call 303-492-6226 for more information.

HIGH SCHOOL CONCURRENT PROGRAM
Colorado high school juniors and seniors who meet the guidelines of the "Postsecondary Enrollment Options Act" (HB 1162) may enroll in two courses each Fall and Spring semesters, either through the Boulder Evening or ACCESS programs. Call 303-492-6226 for more information.

APPLIED MUSIC PROGRAM
The College of Music and Continuing Education offer private instruction for voice and most popular instruments. Group classes are offered for beginning guitar and piano. Private lessons are by arrangement. Instruments, except piano, must be furnished by students. Tuition for 9 hours of instruction is $240 (resident). For more information, contact the Independent Study office at 303-492-8757.

INTERNATIONAL ENGLISH CENTER
In addition to its intensive, full-time program for international students, the International English Center (IEC) provide evening classes in English as a second language for community residents or interested visitors from other countries. Meeting on Mondays and Wednesdays at a cost of $225 (text included) for six weeks, the classes are offered at three different proficiency levels—beginning, intermediate and advanced. Courses in academic writing and pronunciation are offered on Tuesdays and Thursdays for $225 for six weeks. For registration information, visit the IEC at 1333 Grandview Avenue or call 303-492-5547.

USE SUMMER TO ACCELERATE YOUR ACADEMIC PROGRESS
Summer session on the Boulder campus is special. With over 500 campus courses to choose from, and 6,000 enrolled students, it's a relaxed, intimate learning environment. Classes are smaller. Parking is easier and dress code is casual.

Summer is a great time to get a jump on the next phase of your academic career.

FOR MORE INFORMATION ON SUMMER SESSION call 303-492-5146 or visit the web site (www.colorado.edu/coned/summer) to request a catalog.

HIGH SCHOOL SUMMER SCHOLARS PROGRAM
An introduction to college life for high school students who have completed at least their sophomore year are eligible to participate in this program. Credit and noncredit classes are taught by instructors selected for their knowledge, experience, warmth and enthusiasm. Staff and residence hall program assistants coordinate social, cultural, academic, and special activities for residential and day students. To place your name on the mailing list, call 303-492-5146 or visit our website www.colorado.edu/coned/scholars

REAL ESTATE AND APPRAISAL PROGRAM
Our Real Estate and Appraisal Program (REAP) exists to serve and support the Colorado real estate industry. It offers the most comprehensive real estate curriculum in the state and includes all of the hours required for the real estate broker's license, for all four levels of appraiser licenses, and for the mandatory and elective courses for license renewal. These courses are conducted at a number of locations around the state, including Boulder, and are approved for continuing education credit by the Colorado Real Estate Commission.

ENTER THE PROFESSION!
The "associate broker" is the first level of licensing for those entering the real estate profession. A license candidate must successfully complete 168 hours of designated classroom work and score a minimum of 75% on the state licensing examination. The six CU courses which satisfy the 168-hour requirement are:

- NCRE 007 Practice and Law — 48 class hours
- NCRE 020 Colorado Contracts and Regulations — 48 class hours
- NCRE 022 Record Keeping and Trust Accounts — 8 class hours
- NCRE 029 Real Estate Closings — 24 class hours
- NCRE 032 Practical Applications — 32 class hours
- NCRE 034 Current Legal Issues — 8 class hours

The "registered appraiser" is the first level of licensing for those entering the real estate appraisal profession. A license candidate must successfully complete 75 hours of designated classroom work and pass the Level A licensing examination. The three CU courses which satisfy the 75-hour requirement are:

- NCRE 200 Registered Appraiser — 40 class hours
- NCRE 201 Basic Appraisal Applications — 24 class hours
- NCRE 208 Appraisal Standards and Ethics — 16 class hours

The above associate broker license courses are offered as an evening and weekend program in Boulder, and the appraisal license courses are offered as intensive daytime classes in the Denver/Boulder area.

Please call 303-492-5148 or 1-800-331-2801 and request a real estate catalog. Or visit the web site at www.colorado.edu/coned/RealEstate
WAYS TO REGISTER

1. REGISTER BY MAIL. A postage-paid envelope is located in this catalog. Registration forms are on page 47 for credit, page 48 for noncredit and certificate courses.

2. FAX YOUR REGISTRATION. Fast and easy. Day or night to 303-492-3962. Send page 47 for credit courses. Send page 48 for noncredit and certificate courses.

3. IN PERSON. Come to the Continuing Education Office, 1505 University Avenue, between 7:30 a.m. and 5:30 p.m. Monday through Thursday (7:30 a.m. to 5 p.m. Fridays).

4. BY PHONE FOR NONCREDIT AND CERTIFICATE COURSES USING VISA, MASTERCARD, AND DISCOVER. Complete the registration form (page 48) and have your credit card information handy. Then call 303-492-5148 or 800-331-2801.

5. USE CU CONNECT OR THE WEB FOR BOULDER EVENING COURSES. See page 4 for more information.

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

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

- Boulder Evening Credit Classes
- Independent Learning Programs
- ACCESS and High School Concurrent Programs
- Center for Advanced Training in Engineering and Computer Science (CATECS)

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 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.

- Computer Applications
- Entrepreneurship
- Management Development
- Network Administration
- Programming

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

Real Estate and Appraisal Program
International English Center

Where Are Courses Given? Course locations are given at the end of most course descriptions. Many campus parking lots offer $1.25 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.

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 regarding policies after a course starts.

Student Privacy: You may elect to have directory information withheld from all others which includes requesting transcripts over the phone. To do this, please visit our office or call to receive the form.

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 303-735-5000 for course closing information.

Other Questions? Problems? Special Needs? Disabled individuals should feel free to call our registration staff (TTY 303-492-8905) for special needs and arrangements. We'll gladly assist you.

Books and Supplies: required for courses are available at the University Bookstore in the basement of the University Memorial Center on campus. Call us at 303-492-5148 or 1-800-331-2801 if you need help or additional information.
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, Apt. No.
City
State
Zip Code + 4

E-mail address

BIRTHDATE
SEX: [ ] Male [ ] Female
ETHNICITY: [ ] American Indian or Alaskan Native
[ ] Asian or Pacific Islander
[ ] Black
[ ] Caucasian/White
[ ] Hispanic
[ ] I do not wish to provide this information

HOME PHONE

CITIZENSHIP:
[ ] U.S. Citizen
[ ] Non-U.S. Citizen
[ ] Permanent resident

TYPED SOCIAL SECURITY NUMBER:

[ ] Non-U.S. Citizen/Permanent

WORK PHONE

Type of Temporary Visa

1. Do you have a high school diploma or a G.E.D. Certificate? [ ] No [ ] Yes (Submit HS Concurrent Form)

High School Name/County/City/State
Graduation Date

2. Have you ever enrolled for credit course(s) at any campus of the University of Colorado?

[ ] Yes [ ] No

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?

[ ] Yes [ ] No

5. Do you have a college degree?

[ ] Yes [ ] No

Highest Degree Earned

College Name/County/City/State

6. Have you ever been convicted of a felony? (other than traffic violations)

[ ] Yes [ ] No (Attach statement)

DEPT. ABBR.

COURSE NO.
CR. HRS.
SECT. 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.):

Dates of employment in Colorado (mo./day/yr.):

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.):

Dates of active duty military service, if applicable (mo./day/yr.):

Dates stationed in Colorado (mo./day/yr.):

Date of your marriage, if applicable (mo./day/yr.):

Date current Colorado driver's license, if applicable (mo./day/yr.):

Issued date of previous Colorado license, if applicable (mo./day/yr.):

List exact years of Colorado motor vehicle registration:

Date of Colorado voter registration (mo./day/yr.):

Dates of ownership of any Colorado real property (mo./day/yr.):

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.

Student's Signature

Date

TUITION PAYMENT

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, Discover
enclose the following information:

Charge: [ ] Visa [ ] MasterCard [ ] Discover (check one)

Expiration Date

Print cardholder's name as it appears on the charge card.
# REGISTRATION FOR CERTIFICATE AND NONCREDIT COURSES

**PLEASE PRINT**

S.S. No. *
For identification purposes. If you wish to claim continuing education tax credits, your social security number must be provided.

Former Student Number

Birthdate Month/Day/Year

Mr. Ms.

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Mailing Address

Home Telephone

City State Zip

Business Name

Office Telephone

City State Zip

E-mail address

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

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

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Attach additional sheet if needed

Total Enclosed

Please register me for the course(s) listed above.

Signature

Date

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## TUITION PAYMENT

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, Discover, please enclose the following information:

| Charge: Visa □ MasterCard □ Discover □ (check one) |
|---------|-------------|-------------|
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Expiration Date ________________

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

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

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**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.
ONCE UPON A LIFETIME

Every good story begins right in the middle of the action. And that’s where we come in—right in the middle of your adventures. We’ve seen some wonderful stories over the years. Full of dragons slain, mysteries solved, dreams and degrees achieved. Our students' journeys are sometimes suspenseful, often inspiring. But never dull. And as for happy endings, we see them, too.

The students who pass through our classrooms continue to impress us with the intelligence, creativity, determination and energy they bring to the achievement of personal and academic goals.

So don’t believe everything you hear. You have time. Time to think and time to rethink. Maybe it’s time you gave yourself the gift of a lifetime, through a course of action and reflection that allows you to fine-tune the next chapter in the unfolding story of your life.

Maybe we can help. We specialize in helping people do what they need to do. To go where they want to go.

THE DIVISION OF CONTINUING EDUCATION
WE HAVE TIME FOR YOU!