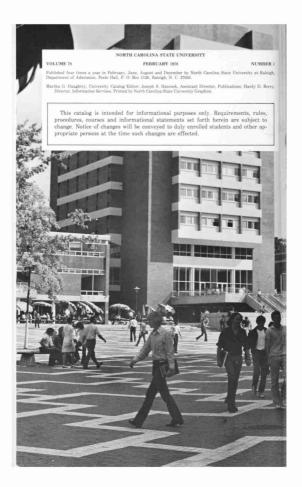


# summer session 1978



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Complete this form only if Claiming North Caroline Residence for

#### IF ADDITIONAL INFORMATION IS NEEDED. THE APPLICANT WILL BE NOTIFIED

I certify that these responses are true to the best of my knowledge, pursuant to reasonable inquiry where needed, and I am aware that any knowing falsification hereon may result in disciplinary action including denial of admission or dismissal after admission.

Signature of applicant

Signature of parent or guardian (if applicant under 18 years of age)

Date Date

Official Classification

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#### MAIL THIS FORM AND THE RESIDENCY FORM (IF APPLICABLE) TO:

Director of Summer Sessions North Carolina State University Box 5125 Raleigh, N. C. 27650

#### DEFINITIONS OF ETHNIC GROUPS

White (not of Hispanic origin). Persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.

American Indian or Alaskan Native. Persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

Black (not of Hispanic origin). Persons having origins in any of the black racial groups.

Asian or Pacific Islander. Persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands. This includes for example, China, Japan, Korea, the Philippine Islands, American Samoa.

Hispanic. Persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.



## SUMMER SESSIONS 1978

North Carolina State University Raleigh, North Carolina

### NORTH CAROLINA STATE UNIVERSITY

### SUMMER SESSIONS 1978 REGISTRATION APPLICATION INFORMATION

Only special students are eligible to use the enclosed summer sessions registration application.

The registration application form *must* be used by all visiting students from other colleges or universities who will be classified as *special students* and by all students who are currently classified as *special students* at North Carolina State University.

A special student is one who has not been formally admitted as a degree candidate to North Carolina State University and does not wish regular classification of any kind at the University. See page 9, Special Students, for additional information.

NOTE: All special students (including those from other universities and colleges) are advised that NCSU degree students are always given priority for Summer Session classes. Acceptance of the Registration Application for special students by the Summer Sessions Office in no way constitutes a guarantee that class space will be uvailable.

#### STUDENTS NOT ELIGIBLE TO USE THE ENCLOSED SUMMER SESSIONS REGISTRATION APPLICATION

- The registration application form is not to be used by any classified degree candidate, undergraduate or graduate, now attending North Carolina State University. Such students must preregister through their advisers (see page 11).
- The registration application form is not to be used by any student who has previously enrolled as a degree candidate at North Carolina State University. Such students (former students returning) must apply for readinission to the University by writing to the Department of Registration and Records, P. O. Box 5745, North Carolina State University, Raleign, North Carolina 27650 (see page 11).

### INFORMATION

For additional information about the Summer Sessions write to:

The Director of Summer Sessions North Carolina State University Box 5125 Raleigh, N. C. 27650

or call 737-2265.

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### NORTH CAROLINA STATE UNIVERSITY

### ADMINISTRATION

Joab L. Thomas, Chancellor Nash N. Winstead, Provost and Vice Chancellor Vivian T. Stannett, Vice Provost and Deux of the Graduate School William L. Turret, Vice Chancellor for Extension and Public Service Earl G. Droessier, Vice Provent and Deux for Research School C. Will, V. D. Chancher for Student Conference George L. Worsley, Vice Chancellor for Funance and Datimess Rodolph Pate, Vice Chancellor for Funance and Development

#### DEANS OF THE SCHOOLS

James E. Legates, School of Agriculture and Life Sciences Claude E. McKinney, School of Denign Carl J. Doles, School of Education Ralph E. Fadum, School of Pupierering Fric L. Ellwood, School of Forest Resources Robert O. Timan, School of Humanities and Social Sciences Arthur C. Menius, Jr., School of Physical and Mathematical Sciences David W. Chaney, School of Pretiles

#### SUMMER SESSIONS

William L. Turner, Vice Chancellor for Extension and Public Service Charles F. Kolb, Director

#### ADMISSIONS

Anna P. Keller, Director

### REGISTRATION

James H. Bundy, University Registrar

### SUMMER SESSIONS CALENDAR 1978

### FIRST SESSION

April 28	Friday	Last day to preregister for first session.
May 23	Tuesday	Registration Day-8:30 a.m. to 12 noon; preregistration will automatically be cancelled for those who do not complete registration by 12 noon; late registration fee for those who com-
May 24	Wednesday	plete registration after 12 noon, May 23. First day of classes.
May 29	Monday	Last day to register-last day to withdraw or drop a course with refund.
June 2	Friday	Last day to withdraw or drop a course at the 400 level or below.
June 9	Friday	Last day to withdraw or drop a course at the 500 or 600 level.
June 27	Tuesday	Last day of classes.
June 28	Wednesday	Final examinations
SECOND SES	SION	
June 9 July 5	Friday Wednesday	Last day to preregister for second session. Registration Day 8:30 a.m. to 12 noon; preregistration will automatically be cancelled for those who do not complete registration by 12 noon; late registration fee for those who com-
July 6	Thursday	plete registration after 12 noon, July 5. First day of classes.
July 11	Tuesday	Last day to register last day to withdraw or drop a course with refund.
July 17	Monday	Last day to withdraw or drop a course at the 400 level or below.
July 24	Monday	Last day to withdraw or drop a course at the 500 or 600 level.
August 9	Wednesday	Last day of classes.



A view of the N. C. State University campus looking west from the Memorial Tower.

### NORTH CAROLINA STATE UNIVERSITY

North Carolina State University is one of the nation's major public universities-large, complex, national and international in scope, and a leader in scientific research.

It ranks among the top universities in the nation, and shares the distinctive character of Land-Grant state universities nationally—broad academic offerings, extensive public service, national and international activities, and large-scale extension and research programs.

Academic excellence is well represented in about 90 bachelors of arts and science programs, 71 master's degree fields and 45 doctoral degrees.

Research activities span a broad spectrum of about 700 scientific, technological and scholarly endeavors, with a budget of approximately \$20 million annually.

Extension work on a statewide basis in each of the 100 counties underscores the idea that the University's campus extends to the state's boundaries. Diverse extension programs include urhan affairs, marine sciences, environmental protection, engineering, industrial, business, textiles, agricultural and many others.

The annual University budget is more than \$100 million. The University has 4,100 plus employees. There are 1,771 faculty and professional staff and 208 adjunct and federal agency faculty, including 1,176 graduate faculty.

There are 120 campus buildings with an estimated value of about \$150 million.

The central campus is 596 acres, though the University has 88,000 acres on a statewide basis, including one research and endowment forest of 78,000 acres. Near the main campus are research farms, biology and ecology sites, genetics, horticulture, and floriculture nurseries, forests, and acreas such as Carter Stadium which comprise about 2,500 acres. The University's Wolfpack athletic teams are well-known nationally. The baskethall team was national champion in 1974. The fotoball team has been the Atlantic Coast Conference Champion four times and co-champion twice and has won three bowl games in the last decade. The Wolfpack is now fielding women's intercolligitat athletic teams.

North Carolina State University is one of the three Research Triangle Universities along with Duke University and the University of North Carolina at Chapel Hill. In the 30 mile triangle formed by the three universities is the 5,000-acre Research Triangle Park; the Research Triangle Institute, a subsidiary of the Universities and the Triangle Universities Computation Center, a central facility for the extensive computing centers of the institutions.

N. C. State's enrollment is about 17,700. There are 13,725 undergraduates, and 3625 graduate students. Students at State come from 50 states and some 75 other countries. The international enrollment is a distinctive feature of the institution since its 718 international students give cosmopolitan aura.

State is one of 118 members of the National Association of State Universities and Land-Grant Colleges. Dwen though these institutions constitute less than 5 percent of the 2,500 colleges and universities in the nation, they are truly the nation's major institutions. They erroll about 300 percent of all U.S. colleges students-26 million out 65 million, and award 38 percent of all degrees awarded in the United States, including 64 percent of all doctoral degrees.

Chancellor Thomas has described NCSU as a "magnet of progress," noting that its faculty have been attracted from more than 150 of the top universities of the nation and the world. Some 30 nations are represented. A recent study showed that the Research Triangle area has more Ph.D.S proportionate to population than any area of the nation. The Triangle universities State, Duke and UN-CChapel Hill, plus the Research Triangle Park, constitute a notable concentration of knowledge.

NCSU is dedicated to advancing knowledge, providing superior education and serving the people. It looks to the future with optimism and confidence.

### THE SUMMER SESSIONS

The Summer Sessions at North Carolina State University offer an extensive educational program planned to meet the varied needs and interests of almost 8,700 students. Fifty departments offer instruction in more than 650 courses, over two-fifths of which are at the graduate level.

Tach of State's eight schools, with a combined faculty of more than 300, participates in the two regular five week sessions. In addition, the School of Design offers a six-week practicum, the School of Forest Resources conducts a summer camp and two five-week practicums and the School of Argirciulture and Life Sciences offers as three-week practicum, and three-week program for extension workers and other adult educators. Special programs and institutes are also offered during the summer.

Summer courses and special programs are designed for the new student, the undergraduate waining to advance his or her academic standing at State, the graduate desiring to continue study and research during the summer months and for visiting students pursuing digrees at other institutions. Teachers who need to earn credit toward renewal of tuckring certificates or advanced digrees in education and persons in professional fields who wish to keep abreast of new developments and trends also take advantage of State's summer programs.

### ADMISSIONS

All students regardless of race or sex are equally welcome at North Carolina State University. Anyone may apply for and accept admission confident that the policy and practices of the University will be administered without discrimination.

Students are admitted to the summer sessions in one of seven categories: 11 new freshmen, 21 new undergraduate transfer students, 31 new graduate students, 49 percial students, 50 continuing North ('arolina State University students, 6) former North ('arolina State Uni versity students, 7) suspended North ('arolina State University students.

### NEW FRESHMEN

Application forms for new freshmen should be obtained from the Director of Admissions, Prede Hall, P. O. Box 5128, NCSU, Baleigh, North (arolina 2766). The Summer Sessions application form in this catalog should *ind* be completed. Applications should be submitted in the fail of the senior year in high school and will be accepted until the class is filled. Based on past experience, applications and oredentials received in the fall and early winter have received full consideration while those applications received later may be subject to a waiting list.

A freshman applicant should be a graduate of an accredited secondary school. Nongraduates should have a high school equivalency certificate. The following High school preparation, or its equivalent, is necessary: English, 4 units; history or social studies, 2 units; mathematics, 2 units in algebra, 1 unit in geometry, and 1 unit in advanced math is strongly recommended for the Schools of Engineering, Physical and Mathematical Sciences, and Porent Resources; science, 2 units, preferably biology, chemistry, or physics: foreign language, 2 units recommended but not required, for the School of Humanities and Social Sciences only.

Preshman applicants must take the Scholastic Aptitude Test of the College Entrance Examination Board. These scores, together with the high school record, will be considered in determining admissibility. Information as to the time and place at which the Scholastic Aptitude Test will be given may be obtained from high school guidance counselors, or by writing directly to the College Entrance Examination Board. Box 539, "Interest, New Jersey (0584) for the Builttin of Information. The Bulk tim includes an application form and is available without charge.

Although the Achievement Test scores are not used in the admissions decision, the English

and Math Level I Tests are recommended for proper course placement. Additional informa tion concerning these tests may be obtained by contacting the Undergraduate Admissions Office (919-737-2434).

### NEW TRANSFER STUDENTS

In addition to submitting an application form which may be obtained from the Director of Admissions, Peele Hall, before May 1, all transfer students must have official transcripts sent to the Admissions Office directly from each institution attended. The Summer Session application in this catalog should not be completed.

<sup>1</sup>Transfer applicants must present at least 28 semester hours of college-level work with a minimum 2.0 (0 overall grade point average on all college-level academic work attempted and be elibible to return to the last institution regularly attended. Programs that are experiencing space limitations may require a higher minimum grade point average for admission. If credit has not been received on a college-level mathematics course, the secondary school record must be submitted. Students presenting less than 28 semester hours must also meet the admissions requirements for entering freshmen.

#### NEW GRADUATE STUDENTS

All students working towards advanced degrees are enrolled in the Graduate School. An application for admission may be obtained from the Dean of the Graduate School, Peele Hall, P. O. Box S235, NCSU, Releigh, North Carolina 27650.

#### STUDENTS ADMITTED TO THE FALL SEMESTER

Any student accepted for regular admission for the fall semester wishing to attend either summer session should notify the Admissions Office, Peele Hall, to change the date of entrance. He or she should not fill out a Summer Sessions application.

#### SPECIAL STUDENTS

Special students must complete the Summer Sessions registration application in the front of this catalog. A special student is one who has not been formally admitted as a degree candidate at North Carolina State University. All students visiting from other schools will be classified as special students. Special students are limited to a class load of not more than seven semester hours per session. In unusual cases, a special student visiting from another college may be allowed to take more than seven hours if permission is obtained from the Director of Summer Session.

Undergraduate Special Students (UGS) - This classification is used for individuals who have not obtained a baccalaureate degree and who wish to take courses but who are not currently admitted to a degree program.

Post-Bicechinerente Studies (PBS) - This classification is designed for students who wish to udertake academic work beyond the bacealaureate degree but who are not currently admitted to a degree program. The following policies apply to students who wish to register as PBS: (this program is closed to foreign students.)

- 1. All must have baccalaureate degrees from accredited institutions of higher education.
- 2. Registration is through the Division of Continuing Education; the submission of transcripts is not required. Post-Baccalaureate students may register for course work at any level. Registration for regular course ceredit (A, B, C, D, NG or S, U) at the 500 and 600 levels is limited to a total of nine semester hours. (Hours completed in the "Graduate Special" classification which was discontinued at the end of the 1973 fall semester or in any other graduate classification any hours approved for graduate credit while classified asinor or unclassified undergraduate at North Carolina State University will be included in the nine hours permitted.) Students classified as PBS may register for further course work at the 500- and 600 levels for "Treful Only."

- Registration is normally limited to a maximum of two courses per session. Individuals who are employed full-time should limit their PBS registrations to one course per session.
- The PBS classification carries with it no implication that the student will be admitted to the Graduate School in any degree classification.
- 5. A Post-Baccalaureate student who is in due course admitted to a graduate degree program may requires that a maximum of nine hours of courses work at the 400-level or above taken for regular course credit (A, B, C, D, NCor S, U) be considered for graduate degree credit. No course taken for "Credit Only" (which is graded "CS" or "CU") may be considered for graduate degree credit. The ourse work accepted for degree credit may advise the program. Requests for degree credit advisory courses to being germane to the program. Requests for degree credit advisory courses to the student's afficient of the student's filled with the Graduate School after admission to a graduate degree program.
- Students classified as PBS are expected to familiarize themselves with Graduate School policies and to seek further advice or clarification as needed.

### CONTINUING NCSU DEGREE STUDENTS

Any regular NCSU degree candidate may attend Summer Sessions. The Summer Session application in this catalog must not be completed, but registration procedures as listed on page 11 must be followed.

### READMISSION OF FORMER NCSU DEGREE STUDENTS

Former NCSU degrees students who wish to attend Summer Sessions must apply for readmission through Registration and Records at theast 30 days prior to be intended date of return. The readmission application may be obtained by writing to the Department of Registration and Records, P. O. Bos 7545, NCSU, Raleigh, N.C. 27560. *The Summer Session* application in this catalog wast not be completed, but registration procedures as listed on page 11 must be followed.

### SUSPENDED NCSU DEGREE STUDENTS

NCSU degree students suspended at the end of the spring semester, 1978 may attend one or both sessions of the Summer Session to become eligible to continue in the fall. The Sum-

Advanced TV students are learning how to use the portable tape recorder.



mer Sessions application in this catalog winst not be completed, but registration procedures as listed on page 11 must be followed. Students suspended prior to the spring semester, 1978 may attend one or both sessions of the Summer Sessions but should follow readmission procedures. The readmission application may be obtained by writing Department of Registration and Records, P. O. Bos 3745, NCSU, Raleigh, N. 2. 27630.

### REGISTRATION

#### PREREGISTRATION FOR NCSU DEGREE STUDENTS

All NCSU degree students who plan to attend Summer Sessions must preregister. Preregistration consists of selecting the courses to be taken during the first and/or second session and fling a Preregistration Schedule Request Form with Registration and Records. On Registration Day, each student obtains a completed class schedule. (Graduate degree stu dents who preregister will be allowed to complete registration by mail.)

Currently enrolled degree students will preregister for the Summer Session at the time they preregister for the 1978 fall semester.

Former degree students returning may preregister for the Summer Session after they have filed an application for readmission and have received their letters of approval.

New freshmen and new transfer degree students may preregister for the Summer Sessions after they have received their letter of approval. New students who desire to attend the Summer Sessions should contact the Admissions Office.

The preregistration period for all NCSU degree students will be from Monday, April 10, 1978, through Friday, April 14, 1978. The last day to preregister for the first summer session will be Friday, April 28, 1978 and for the second session, Friday, June 9, 1978.

#### PREREGISTRATION FOR SPECIAL STUDENTS

Special students will preregister for the Summer Session by completing the Summer Sessions Registration Application in the front of the Summer Sessions Catalog and filing this with the Summer Sessions Office by mail or in person. Preregistration requests for the first summer session will be accepted through Priday, April 28, 1974, and for the second summer session through Priday, June 9, 1978. On Registration Day, each student will obtain a com pleted class schedule.

#### REGISTRATION

All students will complete registration on Tuesday, May 23, 1978 (first session) and or July 5, 1978 (second session) at Leynolds Collowarm. Registration on both days will be from 8:30 a.m. to 12 noon. There will be a \$20 late registration fee for all students who fail to register by 12 noon on the respective registration day. Perverptientons will anthomatically be cancelled for those who do not complete registration by 12 noon on the respective, registration day.

#### WITHDRAWAL FROM THE UNIVERSITY

A regularly enrolled (degree) student who finds it necessary to drop all courses will initiate withdrawal from the University at the Counselling Center, 200 Harris Hall. A special (non degree) student in the same circumstance initiates withdrawal from the University at the Summer Sessions Office, McKimomo (Center, Coruma Street and Western Boulevari. A student who withdraws will not have any grades recorded. A student who discontinues attending classes without officially withdrawing will receive all "New grades.

After a short, period (four days) during which it is possible to withdraw with a refund of fees (less a registration fee), there is a period during which a student may withdraw but without refund. The withdrawal deadline (or undergraduates i regularly classified and UGS students) corresponds to the last day to drop a rourse at the 100 level or below; for graduate students (including Post-Baccalaurate students) the deadline for withdrawal corresponds to the students (including Post-Baccalaurates is the students). the last day to drop 500 or 600 level courses. (See Summer Sessions Calendar for dates.) After the published deadlines, there is no withdrawal except for unusual circumstances which can be documented as, for example, extended illness. Under these circumstances a student may petition the Refund Committee for a prorated refund of tuition and fees.

#### SPECIAL NOTES

- Tuition and fees are payable by check or cash before or on the day of registration. Advanced billing of tuition and fees will be made *only* for those students who preregister and payment is requested by May 15, 1978 for first aummer session and June 26, 1978 for second summer session.
- Students planning to take courses in both sessions should plan their sequences well in advance. Offerings in the second session are often substantially less in number than in the first session, and in many instances, departments do not offer courses in both summer sessions.
- Everything possible will be done to insure that the courses listed in the catalog will be given at the time indicated. However, the Director of Summer Sessions reserves the right to cancel courses in which enrollment is deemed insufficient.
- 4. The normal load for either session of the Summer Session is six or seven hours for undergraduates and six hours for graduates. Any student may carry less. Regularly enrolled students who desire to carry more than seven hours must obtain the approval of the dean or director of instruction of the school in which they are enrolled. Students



The shady areas around Harrelson Hall are most inviting for a leisurely break between classes.

visiting from other schools who wish to take more than seven hours must obtain the up proval of the Director of Summer Sessions.

5. All special students (including those from other university stand colleges are not used that NCSU degree students are always green priority for Summer's Sesions classes. Are ceptonice of the Registration Application for special staticities by the Summer Sesions Office in no way constitutes a guarantic that class space will be available.

### NONDISCRIMINATION POLICY

North Carolina State University is dedicated to equality of opportunity within its community. Accordingly, North Carolina State University does not practice or condene liscrimination, in any form, against students, employees, or applicants on the ground of race, color, national origin, religion, sev, age, or handicap. North Carolina State University com mis itself to positive action to severe equal opportunity regardless of those characteristics.

North Carolina State University supports the protection available to members of its community under all applicable Federal as including Tutles VI and VII of the Civil Rights Act of 1964, Title VI of the Education Amendments of 1972, Sections 789A and V3 of the Public Health Service Act, the Equal Pay and Age Discrimination Acts, the Rehubilitation Act of 1973, and Excertive Order 1124. For information concerning these provisions, contact:

> Dr. Lawrence M. Clark Assistant Provost and Affirmative Action Officer 201 Holladay Hall North Carolina State University Raleigh, North Carolina 27650 Phone: (1919) 737-3148

### ACADEMIC REGULATIONS

North Carolina State University's grading system for measuring academic achievement which became effective the fall semester, 1976, is:

6 11 11 · 1

#### LETTER GRADES

Grades	Definition	Per Credit Hour
A	Executeut	1
B	Good	-\$
1.	Satisfactory	2
D	Marginal	1
s U	Satisfactory (grade for credit-only course)	
Ľ	Unsatisfactory (no credit grade for credit only course)	
NC	No Credit	0
IN	Incomplete	
LA	Temporarily Late	
AU	Audit	
NR	No recognition given for Andit	

CR Credit by Examination or Advanced Placement

#### GRADE POINT AVERAGE

The number of credit hours officially attempted in a semester or summer session (for which a report of A, B, C, D, NC is received) is divided into the total number of quality points



Biological sciences course work includes laboratory problems in plant identification,

earned to arrive at the Grade Point Average (GPA).

- A = 4 quality points per credit hour
- B = 3 quality points per credit hour
  - : = 2 quality points per credit hour
- D = 1 quality point per credit hour
- NC = 0 quality points per credit hour

The Grade Point Average of work attempted will be computed to three decimal points and used solely for class ranking and academic recognition. Questions concerning this grading system should be directed to James H. Bundy, University Registrar, P. O. Box 5745, NCSU Raleigh, N. C. 27650.

#### FINAL EXAMINATIONS

Final examinations will be given for the first summer session on Wednesday, June 28, 1978 and for the second summer session on Thursday, August 10, 1978 in accordance with the following schedule:

> Class Scheduled For 7:30, 8:00 or 9:10 For 9:50 or 10:20 For 11:40 or after, for students with examination conflicts, and for arranged classes

Examination Hour 8:00-11:00 12:00- 3:00 4:00- 7:00

#### UNIVERSITY JUDICIAL SYSTEM

All students are subject to and are responsible for familiariang themselves with the Student Body Statutes. Copies of the Student Body Statutes are available in the Student Development Office, Harris Hall or the Student Attorney General's office, 4130 University Student Center.

### EXPENSES

The following expenses apply for each of the summer sessions.

#### TUITION AND FEES - SUMMER SESSIONS 1978

### RESIDENTS OF NORTH CAROLINA

#### NONRESIDENTS

Hours	Tuition & Academic Fee	Required Fees	Total	Hours	Tuition & Acudemic Fee	Required Fecs	Total
1	\$ 21.00	\$ 33.00	\$ 54.00	1	\$ 63.00	\$ 33.00	\$ 96.00
2	34.00	33.00	67.00	2	119.00	33.00	152.00
3	47.00	33.00	80.00	3	175.00	33.00	205.00
4	60.00	33.00	93.00	4	231.00	33.00	264.00
5	73.00	33.00	106.00	5	287.00	33.00	320.00
6	86.00	33.00	119.00	6	343.00	33.00	376.00
7	99.00	33.00	132.00	7	399.00	33.00	432.00
8	112.00	33.00	145.00	8	455.00	33.00	488.00
8 9	125.00	33.00	158.00	9	511.00	33.00	544.00
10	138.00	33.00	171.00	10	567.00	33.00	600.00

### REQUIRED FEES

(must be paid by all students)

Medical	\$ 10.00
Student Center	17.50
Physical Education	5.50

\$ 33,00

NOTE: Rates for tuition and fees are subject to change.

#### SPECIAL REGISTRATION AND FEES

Summer Research (GR 596S or GR 696S) In-Residence (\$22.00 plus \$33.00 Fees)	65.00
*Not-In-Residence	32.00
Thesis Preparation Only (GR 598 or GR 698)	
In-Residence (\$32.00 plus \$33.00 fees)	65.00
*Not-In-Residence	32.00
Dissertation Research (GR 697)	
In-Residence (\$32.00 plus \$33.00 fees)	65.00
*Not In Residence	32,00
Examination Only (GR 597)	
In Residence (\$21.00 plus \$33.00 fees)	51.00
*Not-In-Residence .	21.00
Audit Only	credit

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### RESIDENCE STATUS FOR TUITION PAYMENT

To be considered for in-state tuition applicants must have maintained a legal domiche in N.C. for 12 months prior to classification or reclassification as a resident. In order to be eligible for such classification, the individual must establish that his or her presence in the State during this 12 month period was for purposes of maintaining a bona file domicile rather than for purposes of mere temporary residence incident to enrollment in an institution of higher education. Further, 1) if the parents tor ourt-appointed legal quardiant of the individual seeking resident classification are (is) bona file domiciliaries of this State, this fact shall be prima facie evidence of domicilary status of the individual applicant and 2) if such parents or guardian are not bona file domiciliaries of this State, this fact shall be prima facie evidence of non-omicilary status of the individual.

No person shall lose in-state resident status by serving in the armed forces outside the State of North Carolina.

Questions concerning residence should be addressed to the Director of Admissions. University regulations concerning the classification of students by residence, for purposes of applicable tuition differentials, are in A Manual to Assist the Public Higher Education Institutions of North Carolino in the Matter of Student Result are 'Classification for Tailium Purposts. Copies are available for review at the Admission Office, 112 Peele Hall.

### **REFUND OF TUITION AND FEES**

A student who withdraws from school on or before the fourth day of classes of either summer session will receive a refund of the full amount paid less a registration fee. After the period specified, no refunds will be made.

In some instances circumstances justify waiving rules regarding refunds. An example might be withdrawal from the University because of illness. Students have the privilege of appeal to the refund committee when they feel special consideration is merited. Application for such appeals may be secured from the Division of Student Aflairs.

### FINANCIAL AID

The financial aid available to regular students attending the Summer Sessions is ordinarily limited to loans and jobs. Students who must have financial aid should make application to the Financial Aid Office, Peele Hall, as far in advance as possible, preferably no later than April 1, 1978.

The University has no financial aid for summer visitor students. However, these students may have access to the part-time job listings in the Financial Aid Office.

### COUNSELING

The Counseling Center in Harris Hall has a staff of full-time counselors to help students with adjustment to college life, vocational and curricular choice and other problems a student might wish to discuss with a professionally trained counselor. The Center administers vocational tests and maintains a file of occupational information to help guide students in career selection. Referral can be made for students needing special kinds of help.

Students may come to the Center on their own accord, or they may be referred by teachers, advisers or other members of the University staff. There normally is no charge for conferences; nominal fees are charged for group counseling and continuing marriage counseling.

## HOUSING

### RESIDENCE HALLS

During the 1978 summer sessions, housing will be provided in the residence halls for men and women who are enrolled for one or more courses. Participants in short courses, conferences, and workshops of less than one month's duration will be located in separate facilities. These persons should write to the director of their program for specific housing information pertaining to their particular group. Assignment to a room for a summer session does not guarantee that a room will be



Poe Hall is headquarters for the School of Education.

available for the fall semester. A student must be accepted by NCSU for fall enrollment in order to be eligible to apply for University housing.

The rooms are furnished with desks, dressers, heds, and closets and the building is equipped with lounges, laundry rooms, and vending areas. None of the residence halks are air-conditioned. A selected student staff under the supervision of professionally trained personnel will be available to advise and assist residents and to overse the operation of the building and its condition.

### MARRIED STUDENT HOUSING

The University operates 300 apartments (King Village) for married students. Information on availability should be requested from the Department of Residence Life, NCSU, Box 5072, Raleigh, North Carolina 27650.

#### FRATERNITY HOUSES

Several of the 17 fraternity houses located on or adjacent to the campus provide housing for summer session students. Twelve of the 17 houses are fully airconditioned and all provide furnished rooms and living areas. In addition, some houses offer board plans during the summer months. Any student interested in further details should write to the Office of Student Development, Box 5072, NCSU, Raleigh, N. C. 27650 or telephoner 377-2441.

### ROOM RENTALS AND APPLICATIONS

The rental rate for a five-week session is \$70 per person in a double room. If space is available, a single room may be reserved for \$110 each session. To obtain an assignment, the student must complete the room application card (new students will be mailed a card) and return it with a check to the Office of Business Affairs, NCSU Box 5067. Raleigh, North Carolina 27650. The room assignment will be mailed if time permits, or may be picked up at the Department of Residence Life in Harris Hall on the day the residence halls open for the session.

Residents will be permitted to change rooms after the first week of classes with the approval of the Department of Residence Life. The room change fee is \$5. Opening days of the residence halls:

> First Session - 10 a.m., Monday, May 22, 1978 Second Session - 10 a.m., Tuesday, July 4, 1978

### HOUSING REFUND POLICY

- 1. Cancellation of a room application must be made in writing as follows:
  - (a) In person at the Department of Residence Life in Harris Hall, Monday through Friday, between 8 a.m. and 5 p.m., on the cancellation form provided; or
  - (b) By mail addressed to the Department of Residence Life, Box 5072, NCSU, Raleigh, North Carolina 27650.

The effective date of cancellation is the date notification is received at the Department of Residence Life or the date the room is vacated, whichever is later. Residents who have moved into their rooms must present their Room Clearance Card to the Department of Residence Life when applying for a room rent refund.

If the room application is cancelled on or before registration day, the rental fee paid will be refunded less a \$35 processing fee. If the room application is cancelled AFTER 5 p.m. on registration day. NO REFUND of room rent will be made unless there is a waiting list of room applicants from which the vacated space can be filled. If vacancies exist, there will be NO REFUND until all spaces have been filled. A refund given after registration day will be the rental fee paid less a \$35 processing fee and a daily rental charge beginning with registration day until all spaces have been filled.

If a student fails to check in and secure his/her keys by the first day of classes, the room application will be cancelled and NO REFUND will be made except as stated above.

### D. H. HILL LIBRARY

The libraries of North Carolina State University contain more than 800,000 volumes of books and bound journals, half-amilion federal government publications, and over a million microforms. The collection is especially strong in the physical and biological sciences, agriculture, textiles, architecture and design. The D. H. Hill Library houses the vast majority of these publications and subscribes to 7,000 periodicals. Three branch libraries—the School of Feories Library in Neison Hall, the Design School Library in Brooks Hall, and the School of Forest Resources Library in Biltmore Hall—serve the special needs of these schools.

The D. H. Hill Library has been a depository for U. S. Government publications since 1924 and receives over 97% of these publications. The library also receives the microfiche research reports published by the Energy Research and Development Administration (ERDA), the



The D.H. Hill Library is an excellent research and study facility containing over 800,000 volumes.

National Aeronautical and Space Administration (NASA), the Educational Resources Information Center (ERIC), and the National Technical Information Service (NTIS).

On-line computer-based literature searching is offered by the library for a number of data bases such as ERIC, CAIN, Psychological Abstracts, Sociological Abstracts, Biological Abstracts, and Nuclear Science Abstracts. Only direct costs are charged to the user.

Pacifities and equipment are also available for both individual and group use of audiovisual media. The library's theater can be scheduled for group media presentations, and films in the State Library's film collection can be borrowed by the D. H. Hill Library's Media Center for academic use by faculty and students.

The scholar, student, and browser will each discover the materials and services of the library to be useful and enjoyable additions to his or her summer sessions program. All areas of the library complex are air-conditioned and open to students and faculty. Library hours for the Summer Sessions are as follows:

Monday-Thursday	7:45 a.m 11:00 p.m.	
Friday	7:45 a.m 9:30 p.m.	
Saturday	9:00 a.m 5:30 p.m.	
Sunday	1:00 p.m 11:00 p.m.	

### SUMMER ACTIVITIES

Through many curricular and extracurricular activities, the Summer Sessions provide special opportunities to those students engaged in summer study. Interesting, informative and entertaining programs and activities are scheduled for each session.

A few of the more popular activities and special features include the Carmichael Gym athletic and recreation programs and the varied activities sponsored by the University Student Center.



The University Student Center is the hub for a wide variety of student social and recreational activities.

The University's regular program of student personnel services is available to summer students. It includes the Counseling Center for educational, career and personal counseling; the Career Planning and Placement Center for career planning and placement; the Residence Life and Residence Facilities offices for residence quarters; the Financial Asid Office for financial asistance; and the Student Health Service for medical care.

Beyond the campus, the city of Raleigh offers cultural and recreational opportunities of interest to students. The Raleigh Little Theater presents several productions during the summer, the North Carolina Museum of Art sponsors gallery concerts and exhibits, and there are several swimming pools and city and state parks located in and around Raleigh.

### UNIVERSITY STUDENT CENTER

The hub of campus summer activity is the University Student Center. The Center is supported in part by student fees, and all regularly enrolled students are invited to attend the programs and activities sponsored by the Summer Programs Board.

These programs include movies and a variety of social and recreational events.

The air-conditioned Center offers many facilities, including a television lounge, an art gallery, offices for student organizations, a billiards room, cloak room, snack bar, craft shop, theater and meeting rooms.

A Center annex in the Erdahl Cloyd Wing of the D. H. Hill Library offers a barbershop, a snack bar and a games room.

Building hours during the summer are:

University Student Center Monday-Saturday 7 a.m.-11 p.m. Sunday 9 a.m.-11 p.m. University Student Center Annex Snack Bar and Games Area: Monday-Friday 7 a.m.-3 p.m. Saturday and Sunday Closed Vending open 24 hours a day

### SPECIAL COURSES AND INSTITUTES

### Department of Adult and Community College Education

#### SPECIAL THREE-WEEK SUMMER SESSION FOR ADULT AND COMMUNITY COLLEGE EDUCATORS July 10-28

The Department of Adult and Community College Education offers a special three-week summer program of instruction designed to provide graduate study and professional improvement opportunities for human service professionals involved in adult learning and education. This intensive session assists extension workers, community college and technical institute personnel, vocational education teachers, and others to increase their understanding of topies such as againg, community education, social action, instructional strategies, and the future of adult education. It also offers opportunities for keeping up-todate in areas of agricultural technology.

The program is interdisciplinary: it enlists the professional competence of visiting and resident faculty. Courses meet daily in three-hour blocks scheduled for morning, afternoon, or evening. ED 396 is offered in one-week modules, making it possible to enroll for one, two or three weeks. Each participant may take a maximum of three semester hours. Course offerings are listed below.

Currently enrolled or former degree students at North Carolina State University must preregister through the normal preregistration procedures. All special students must preregister by completing the Summer Session registration application in the front of this catalog. Special students should see pages 9 and 10 for additional information. Students enrolling for the special three week summer session will be allowed to complete registration at the Department of Registration and Records in Harris Hall, July 10, 1978. To assist the Department of Adult and Community College Education in planning, students are requested to complete and return an information form by June 9, 1978. The form may be obtained from Dr. J. W. Wright, Department of Adult and Community College Education, 120 Ricks Hall, NCSU, Raleigh, N. C., 27650.

ED 538	Instructional Strategies in Adult Education
ED 541	Community Education
ED 593	Special Problems in Agricultural Education
ED 596(002)	Issues in Aging
ED 596(003)	The Future of Adult Education
ED 596(004)	Adults' Learning Projects: Research and Innovations
ED 596(005)	A Social Systems Perspective on Adult Education
ED 596(006)	Policy Analysis in Adult Education
ED 597U	Use of the Arts in the Basic Curriculum
SOC 591J	Social Action and Change Agents
CS 414	Weed Science
PM 415	Crop Pest Management
HS 440	Green House Management

### Summer Institute in English for Foreign Students

### July 3 - August 11

The Summer Institute in English for Foreign Students at North Carolina State University is designed for those students from other countries who intend to pursue University studies or specialized training programs in the United States in the fall. It is designed to furnish them with intensive instruction and practice in the use of the English language. Emphasis is placed on developing fluency in speaking and understanding spoken English as well as reading and writing skills. The Institute also offers orientation to American life and institutions to give the students insight into life in the U.S. and help them to adjust to the new en vironment. There are field trips on weekends to various industries and places of historic, cultural and scenic interest.

Any student who has a score of 400 on the TOSFL Test (Test of English as a Foreign Language) on an equivalent facility in the use of spoken English may attend the Institute. (Information about taking the test at one of the centers located in the students' home coun tries may be obtained by writing to: Test of English as a Foreign Language, Educational Testing Service, Princeton, New Jersey.)

Admission to the Institute does not imply admission to the regular session at North Carolina State University or any other campus of the University of North Carolina.

The Institute, which is sponsored by the Division of Continuing Education in cooperation with the Summer Sessions and the Department of Poreign Languages and Literatures, is under the direction of Miss Virginia Prichard of the Department of Poreign Languages and Literatures. All classroom work is conducted on the campus. Classes, including language, laboratory practice sessions, are held five and a half hours a day. Monday through Priday, from 800 to 1230 and 200 to 300. (Attendance at the Institute does not carry academic redit, although students who complete the program receive a certificate of attendance )

The total cost of the six-week program is approximately \$740. The cost of the Institute is estimated on the basis of campus dornitory accommodations and meals at the campus cafeterias. Incidental expenses, such as laundry, dry cleaning, entertainment, etc., are not in cluded. (Room rent includes sheets and towels.)

Tuition, Books and Fees	\$310.00
Room in Campus Dormitory	\$132.00
Food (Estimated)	\$275.00
Insurance and Infirmary Fee	\$ 23.00

For further information about the Institute, write to John F. Cudd, Program Coordinator, Division of Continuing Education, P. O. Box 5125, NCSU, Raleigh, North Carolina, 27650.

### A Summer at Oxford

In cooperation with the University of North Carolina at Asheville, the School of Humanities and Social Sciences at North Carolina State University will be sponsoring a summer school for approximately 40 students at St. Benet's Hail, Oxford, England, St. Benet's, a permanent private hall of Oxford University, is a most attractive 18th century building right in the center of this ancient university city.

Courses, taught primarily by faculty associated with Oxford, will be offered in The Modern English Theater, Shakespear, The Economics and Politics of the Common Markel, Comparative Criminology, and the Sociology of Town Planning, Where appropriate, these courses will involve visiting speakers and field trips. Thus the Shakespeare course will be built around next summer's repertoire of the Royal Shakespeare Come will be built around next summer's repertoire of the Royal Shakespeare Come and Law Shakespeare course will be built that on the Modern English Theater will include visits to several plays in London, and the Town Planning students will visit a half dozen English cities ranging from Bath to Milton Keynes.

Pees for the four-week program including room, board and tuition, will be \$650. Apart from spending money the only addition students will have to pay will be their air fare. The cost of The Laker "Skytrain" New York/London round trip is \$237. The summer school will be held from July 1st to 28th, and afterwards students will be free to travel in the British Isles and the Continent. Anyone wishing further information please contact Dean Gerald Hawkins, Student Affairs, phone 737-1313, Dr. Charles Carlton, History, 737-2481, or Dean W. B. Toole, Humanities and Social Sciences, 737-2468.

### School of Education

### EARLY SUMMER SESSION FOR TEACHERS

In order to meet the needs of teachers in the area, six graduate courses are being offered late afternooms meeting twice a week in three-hour classes beginning May 15 or 16 and ending Jone 3 or 70. Since the regular first summer session begins on May 24, the usual prergistration and registration procedures DO NOT APPLY.

The six courses are:

ED 508	Severe and Profound Mental Retardation	May 16-June 29	Room: Poe 218
ED 530	Theories and Techniques of Counseling	May 16-June 29	Room: Poe 529
ED 533	Group Counseling	May 15-June 28	Room: Poe 529
ED 558	<b>Resource Teaching in Special Education</b>	May 15-June 28	Room: Poe 220
ED 598P	Special Problems in Curriculum and Instruction: Programmed Instruction	May 16-June 29	Room: Poe 209
PSY 576	Developmental Psychology	May 15-June 28	Room: Poe 204

To register for a coursest listed above, the student should come to Poe Hall at 400 P.M. on the first day of classes. *Registration will be done during the first class meeting.* Each student will complete a special registration form and attach a check for tuition to be collected by the instructor. IStudents NOT in attendance on the first day of classes will be required to go to Poe 20 ho to register.)

To reserve a place in a class, the following procedures must be followed:

- A. Graduate and undergraduate degree students enrolled spring semester, 1978, do nut preregister for these courses; instead, go by the Office of the Dean, School of Education, 20% Poe Hall, and complete a form declaring your intent to enroll in one of these course(s). Note: Do not pay tuition for first summer session until the first meeting of these classes.
- B. Special students (see page 9) may secure a form declaring intent to register for the Early Summer Session for Teachers, by writing to: Dr. Carl Dolte, Dean, School of Education, Box 5096, NCSU, Raleigh, N. C. 27650. The form must be completed and returned to the same address.
- C. Students not completing and filing a form with the School Dean, 208 Poe, declaring an intent to enroll, may come to the first class meeting and register. However, registration will be conducted on a "first-come, first-serve basis". Those who had filed the form indicating intent to enroll will be allowed to register first.

### COURSE LISTINGS

Courses are listed by department, departmental abbreviation and numerical designator. Semester hour credits for each course are given following the name of the course. Classes meet daily, Monday through Priday, except where specified to the course. The symbols "LR" and "LB" before the clock hours refer to lecture-recitation and laboratory hours, respectively. If there is no symbol before the clock hours, lecture-recitation is implied. The symbol "CN" refers to the call number for each course. This number must be indicated on the preregistration schedule request form by students who are preregistering for summer sessions courses.

Courses numbered from one through 100 are preparatory courses carrying no college credit; courses in the 100, 200, 300 and 400 series are primarily designed for undergraduates; courses in the 500 series for graduates and advanced undergraduates; and courses in the 600 series for graduates only.

All courses are subject to cancellation by the Director of Summer Sessions if there is inadequate enrollment.

Waiver of prerequisites is at the discretion of the instructor.

Please note that class meeting times in this catalog are indicated in international time which is measured in hours numbered to 24 instead of 12.



If the schedule shows the class beginning at:	The beginning hour in terms of a 12-hour clock is:	if the schedule shows the class beginning at:	The beginning hour in terms of a 12-hour clock is:
	8:00 a.m.	1600	
	9:00 a.m.	1700	
	10:00 a.m.	1800	
	11:00 a.m.	1900	
	12:00 noon	2000	
	1:00 p.m.	2100	
	2:00 p.m.	2200	10:00 p.m.
1500	3:00 p.m.		

### **Special Graduate Categories**

### FIRST SESSION AND SECOND SESSION

GR 596S	MR Summer Research	(CN 46-596-001)	0
GR 597	Masters Exam	(CN 46-597 001) 4	0
GR 598	MR Thesis Preparation	(CN 46 598-001)	0
GR 696S	DR Summer Research	(CN 46-696-001)	0
GR 697	Dissertation Research	(CN 46-697-001)	0
GR 698	DR Thesis Preparation	(CN 46 698-001)	0

### Accounting

### FIRST SESSION

ACC 260 Accounting I Concepts of Financial Reporting 0800-0800 (CN 04 250 001) 0800-0800 (CN 04-260-002) 0950 1120 (CN 04-260-003)	3 Bowen Smith Messere
ACC 261 Accounting II Financial Information Systems Pren. ACC 260	3
0950-1120 (CN 04-261 001)	Bowen
ACC 262 Managerial Uses of Cost Data Preu: ACC 260	3
1140-1310 (CN 04-262-001)	Brown
ACC 262N* Managerial Uses of Cost Data Preq. Non-accounting major	3
0950-1120 (CN 04 262-002)	Smith
ACC 360 Financial Reporting Theory and Practice I Preq. ACC 261	3
0950-1120 (CN 04-360-001)	Brown
ACC 464 Income Taxation Preq: ACC 260	3
0800-0930 (CN 04 464-001)	Messere
*N stands for Non majors.	

### SECOND SESSION

ACC 260 Accounting I Concepts of Financial Reporting 0800-0930 (CN 04-260-001) 0950-1120 (CN 04 260 002)	3 McBurney Bergold
ACC 261 Accounting II Financial Information Systems Preq: ACC 260 0950 1120 (CN 04 261-001)	3 McBurney
ACC 361 Financial Reporting Theory and Practice II Preq: ACC 360 0800-0930 (CN 04-361-001)	3 Bergold

### Animal Science

### FIRST SESSION

ANS 590 Topical Problems in Animal Science	Maximum 6
Hours arranged (CN 10-590-001)	

	ANS 699 Research in Animal Science Hours arranged (CN 10-699-001)	Credits Arranged
	SECOND SESSION	
	ANS 590 Topical Problems in Animal Science Hours arranged (CN 10-699-001)	Maximum 6
	ANS 699 Research in Animal Science Hours arranged (CN 10-699-001)	Credits Arranged
	Anthropology	
ä	FIRST SESSION	
8	ANT 252 Cultural Anthropology 0950-1120 (CN 12 252-001)	3 Nickerson
2	ANT 305 Peoples of the World 0800-0930 (CN 12-305 001)	3 Nickerson
	SECOND SESSION	
	ANT 252 Cultural Anthropology 0800 0830 (CN 12-252 001) 0850-1120 (CN 12-252-002)	3 Wallace Wallace
	Architecture	
	FIRST SESSION	
	ARC 595 Independent Study Preq: Graduate standing and approval of program director and advisor Hours arranged (CN 13 595-001)	1 3 y committee required Loss
	SECOND SESSION	
	ARC 585 Independent Study Preg: Graduate standing and approval of program director and advisor Hours arranged (CN 13 595 001)	'1-3 y committee required Loss
	Biochemistry	
	FIRST SESSION	
	BCH 490 Special Studies in Biochemistry Preq: Senior standing Hours arranged (CN 15-490 001)	1 3 Staff
	BCH 554 Radioisotope Techniques in Biology	2
	Pre: ECH 351 or permission of instructor 0810-1200 (CN 15-554-001) May 24 June 13 Three-week course	Z Sisler

\*Credits six maximum in any program of work. Students may not preregister for these courses. Courses may be added on Registration Days, May 23 (first season), July 5 (second session.)

BCH 590 Special Topics in Biochemistry Prog. BCH 351 or equivalent	Maximum 3
Hours arranged (CN 15 590 001)	Staff
BCH 695 Special Topics in Biochemistry Preq Graduate standing in biochemistry Hours arranged (CN 15 695-00)	Credits Arranged Staff
BCH 699 Biochemical Research	Credits Arranged
Hours arranged (CN 15-699-001)	Saff
SECOND SESSION	
BCH 351 Elementary Biochemistry Preq CH 223	3
0950 1120 (CN 15-551-001	Main
BCH 490 Special Studies in Biochemistry Prog. Senior standing	1-3
Hours arranged (CN 15-490-001)	Staff
BCH 590 Special Topics in Biochemistry Preq. BCH 351 or equivalent	Maximum 3
Hours arranged (CN 15-590 001)	Staff
BCH 695 Special Topics in Biochemistry Preq. Graduate standing in Biochemistry	Credits Arranged
Hours arranged (CN 15 695 001)	Staff
BCH 699 Biochemical Research Hours arranged (CN 15-699-001)	Credits Arranged Staff

### Biological and Agricultural Engineering

### FIRST SESSION

BAE 590 Special Problems	Credits Arranged
Preq: Senior or graduate standing in biological and agricultural en Hours arranged (CN 16-590-001)	gineering Staff
BAE 690 Special Topics Preu: Graduate Standing	Credits Arranged, 1-4
Hours arranged CN 16-690-001)	Staff
BAE 699 Research in Biological and Agricultural Engineering Preq: Graduate Standing in biological and agricultural engineering Hours arranged (CN 16-699-001)	
SECOND SESSION	Stati
BAE 590 Special Problems Preg: Senior or graduate standing in biological and agricultural en Hours-arranged (CN 16 590-001)	Credits Arranged gineering Staff
BAE 690 Special Topics Prog: Graduate standing Hours arrranged (CN 16-690-001)	Credits Arranged, 1-4 Staff
BAE 699 Research in Biological and Agricultural Engineering Preq: Graduate standing in biological and agricultural engineering Hours arranged (CN 16-699-001)	Credits Arranged, 1-4 Staff

### **Biological Sciences**

FIRST SESSION	
BS 100 General Biology LR 0800-0930 (CN 17-100-01 LB 1020-1300 Th (CN 17-100 101) LB 1340 1620 Th (CN 17 100-102) LB 1020-1300 WF (CN 17-100-103) LB 1340-1620 WF (CN 17-100 104)	4 Staff
BS 495A Special Topics in Biology Hours arranged (CN 17 495 001)	Credits Arranged, 1-6 Staff
BS 495B Special Topics in Biology Advanced Biology for Secondary Teachers LR 0800-0930 (CN 17 495 002) LB 1020 1250 and 1340-1350 MTWTh (CN 17-495 101) June 19-July 21 Frice week course	6 Sherbine, Lytle
SECOND SESSION	
BS 495 Special Topics in Biology Hours arranged (CN 17-495-001)	Credits Arranged, 1.6 Staff
Biomathematics	
FIRST SESSION	
BMA 493 Special Topics in Biomathematics Preq: Consent of instructor Hours arranged (CN 18 493-001)	1 3 Staff
BMA 591 Special Topics Preq: Consent of instructor Hours arranged (CN 18 591-001)	Maximum 3 Staff
BMA 691 Advanced Special Topics Preq: Consent of instructor Hours arranged (CN 18 691-001)	1 3 Staff
BMA 699 Research Preq: As required Hours arranged (CN 18-699 001) Hours arranged (CN 18-699-002)	Credits Arranged Staff Ridgeway
SECOND SESSION	
BMA 493 Special Topics in Biomathematics Preq: Consent of instructor Hours arranged (CN 18-493-001)	1 3 Staff
BMA 591 Special Topics Preq: Consent of instructor Hours arranged (CN 18 591 001)	Maximum 3 Staff
BMA 691 Advanced Special Topics Preq: Consent of instructor Hours arranged (CN 18-691-001)	1-3 Staff
BMA 699 Research	Credits arranged
Preq: As required Hours arranged (CN 18-699-001) Hours arranged (CN 18 699-002)	Staff Ridgeway

### Botany

FIRST SESSION		
BS 100 General Biology (See Biological Sciences, page 29)	4	
BO 320 Local Flora Course may be taken 3 times for credit. LB (field trips) 1340-1750 MW (CN 19-320-001)	2 Staff	
BO (ZO) 360 Introduction to Ecology Preq: A 200-level biology course LR 0800 0930 (CN 19-360-001) LB 1340-01750 MW (CN 19-360-101)	4 Striff	
LB 1340-1750 TTh (CN 19-360-102)	Staff	
BO 499 Independent Study in Botany Preq: At least eight hours of botany, advanced standing, and p approved by a faculty member. Hours arranged (CN 19-499-001)		
BO 590 Topical Problems Preu: Consent of instructor	Staff 1-3	
Hours arranged (CN 19-590-001)	Staff	
BO 693 Special Problems in Botany Hours arranged (CN 19-693-001)	Credits Arranged Staff	
BO 699 Research Hours arranged (CN 19-699-001)	Credits arranged Staff	
SECOND SESSION		
BO 200 Plant Life LR 0800-0930 (CN 19-200-001) LB 1340-1750 MW (CN 19-200 101) LB 1340-1750 TTh (CN 19-200-102)	4 Beckmann Staff Staff	
BO 499 Independent Study in Botany Preg: At least eight hours of botany, advanced standing, and presentation of plan of study approved by a faculty member.		
Hours arranged (CN 19-499-001)	Staff	
BO 590 Topical Problems Preq: Consent of instructor Hours arranged (CN 19-590-001)	1-3 Staff	
BO 590D Topical Problems—Species Biology Highlands Biological Station (CN 19-590-002)	Credits Arranged Staff	
BO 693 Special Problems in Botany Hours arranged (CN 19-693-001)	Credits Arranged Staff	
BO 699 Research Hours arranged (CN 19-699-001)	Credits Arranged Staff	
Chemical Engineering		
FIRST SESSION		
CHE 497 Chemical Engineering Projects Preq: Senior standing	. 1-3	
Hours arranged (CN 20-497-001)	Ferrell	

CHE 597 Chemical Engineering Projects Preq: Graduate standing Hours arranged (CN 20-597-001)	1-8 Ferrell
CHE 699 Research Hours arranged (CN 20-699 001)	Credits arranged Ferrell
SECOND SESSION	
CHE 497 Chemical Engineering Projects	13
Preq: Senior standing Hours arranged (CN 20-497-001)	Ferrell
CHE 597 Chemical Engineering Projects	1-3
Preq: Graduate standing Hours arranged (CN 20-597 001)	Ferrell
CHE 699 Research Hours arranged (CN 20-699 001)	Credits Arranged Staff

### Chemistry FIRST SESSION

FIRST SESSION		
CH 101 General Chem		4
LB 1340-1750 MW (CN (CN (CN	21-101-001)	Staff
CH 103 General Chem Preg: CH 101	istry II	4
LR 0950-1120 (CN LB 1340-1750 TTh (CN		Staff
CH 104 Experimental	Chemistry	1
Coreq: CH 105 1340-1750 TTh (CN 21 1	.04-001)	Staff

CH 105 Chemistry Principles and Applications	3
Preq: CH 101 0950-1120 (CN 21-105-001)	Staff
0950-1120 (CIN 21-105-001)	Gtail

3

CH 107 Principles of Chemistry	4
Preq: CH 101 with a grade of C or better LR 0950-1120 (CN 21-107-001)	Staff
LB 1340-1750 TTh (CN 21-107-101) (CN 21-107-102)	

CH 111 Foundations of Chemistry 1340-1620 (CN 21-111-001)	4 Staff
CH 220 Introductory Organic Chemistry	4
Preq: CH 103 or CH 107, or CH 104 and CH 105 LR 0800-0930 (CN 21-220-001)	
LR 0800-0930 (CN 21-220-001) LB 1340-1750 MW (CN 21-220-101)	Staff
LB 1340-1750 TTh (CN 21-220-102)	
CH 221 Organic Chemistry I	4
Preq: CH 107	
*LR 0800-0930 (CN 21-221-001) LB 1340-1750 MW (CN 21-221-101)	Staff
(CN 21-221-102)	
*LR 0950-1120 (CN 21-221-002)	Staff
LB 1340-1750 TTh (CN 21-221-103) (CN 21-221-104)	
(0//21-221-104)	
CH 223 Organic Chemistry II	4
Preq: CH 221	
LR 0800-0930 (CN 21-223-001) LB 1340-1750 MW (CN 21-223-101)	Staff
LB 1340-1750 TTh (CN 21-223-101)	
CH 315 Quantitative Analysis	4
Preq: CH 103 or CH 107, or CH 104 and CH 105	
Credit is not allowed for both CH 315 and CH 317. LR 0950-1120 (CN 21-315-001)	Staff
LB 1340-1750 MW (CN 21-315-001)	Suur
LB 1340-1750 TTh (CN 21-315-102)	
CH 431 Physical Chemistry I	3
Preq: CH 107, MA 202, PY 203 or PY 208 Coreo: MA 301	
0800-0930 (CN 21-431-001)	Staff
CH 499 Senior Research in Chemistry	1-3
Preq: Three years chemistry	100
Hours arranged (CN 21-499-001)	Staff
CH 699 Chemical Research	Credits Arranged
Preq: Graduate standing in chemistry	
Hours arranged (CN 21-699-001)	Staff

 $^{*}{\rm Students}$  preregistering for this course must list one of the laboratory sections listed immediately following the lecture section.

# SECOND SESSION

CH 101 General Chemistry I Preg: MA 111 or equivalent strongly recommended LR 0800-0903 (CN 21-101-001) LB 1340-1750 MW (CN 21-101-102) (CN 21-101-102) (CN 21-101-103)	4 Staff
CH 103 General Chemistry II Preo: CH 101	4
LR 0950-1120 (CN 21-103-001) LB 1340-1750 TTh (CN 21-103-101) (CN 21 103-102)	Staff
CH 107 Principles of Chemistry	4
Pres: CH 101 with a grade of C or better LR 0950-1120 (CN 21 107-001) LB 1340-1750 TFh (CN 21-107-101) (CN 21-107-102)	Staff
CH 223 Organic Chemistry II Prea: CH 221	4
Fredeson 120 (CN 21-223-001) LB 1340-1750 (MV (CN 21-223-101) (CN 21-223-102) (CN 21-223-103)	Staff
CH 433 Physical Chemistry II Preq: CH 431 and MA 301 0800-930 (CN 21 433 001)	3 Staff
0800-0930 (CN 21 438 001)	Stari
CH 499 Senior Research in Chemistry Preq: Three years chemistry	13
Hours arranged (CN 21-499 001)	Staff
CH 699 Chemical Research	Credits Arranged
Preq: Graduate standing in chemistry Hours arranged (CN 21-699-001)	Staff
Civil Engineering	
FIRST SESSION	
CE 202 Introduction to Civil Engineering Preq: MA 201	2
LR 1000 1100 MWF (CN 22 202 001) LB 1000-1115 TTh (CN 22 202-101)	Staff

CE 325 Structural Analysis Preg: ESM 301	3
Pred. ESM 301 Offered only in a 10-week sequence. Students should register for three registration for First Session only. LR 0800-0850 MWF (CN 22-325-001)	semester hours at
LB 0800-0920 TTh (CN 22-325-101)	Staff
CE 326 Structural Engineering I Preq: CE 325	4
Offered only in a 10-week sequence. Students should register for four : registration for First Session only. LR 0800 0915 MWF (CN 22-326-001)	semester hours at
LB 0800-0930 TTh (CN 22-326-101)	Staff
CE 332 Materials of Construction Preq: MAT 200	3
LR 1100-1200 (CN 22-332-001) LB 1340-1620 MW (CN 22-332-101)	Staff
CE 498 Special Problems in Civil Engineering Preq: Senior standing in CE or CEC Hours arranged (CN 22-498-001)	1-3
Hours allanged (CH 22-450-001)	
CE 598 Civil Engineering Projects Hours arranged (CN 22-598-001)	1-6 Staff
CE 698 Special Topics in Civil Engineering Prec: Graduate standing	1-3
Hours arranged (CN 22-698-001)	Staff
CE 699 Civil Engineering Research Hours arranged (CN 22-699-001)	Credits Arranged Staff
SECOND SESSION	
CE 507 Airphoto Analysis I Preq: Senior standing 0800-1010 (CN 22-507-001)	3 Wahls
CE 598 Civil Engineering Projects	1-6
Hours arranged (CN 22-598-001)	Staff
CE 698 Special Topics in Civil Engineering Prec: Graduate standing	1-3
Hours arranged (CN 22-698-001)	Staff
CE 699 Civil Engineering Research Hours arranged (CN 22-699-001)	Credits Arranged Staff

# **Computer Science**

# FIRST SESSION

CSC 102 Programming Concepts         3           Prec: CSC 101         0800-0930 (CN 22-102-001)         William           CSC 111 Algorithmic Languages I         2           Cores: MA 122         1200-1300 (CN 22-111-001)         Lewin           CSC 201 Basic Computer Organization and Assembly Language         3           Prec: CSC 101 or CSC 111         2         3           1200-1330 (CN 22-201-001)         Sta         3           CSC 201 June CSC 111         Cores: MA 400 or MA 212         3           1200-1310 (CN 22-302-001)         Lewin         3           CSC 201 Or CSC 111         Cores: MA 400 or MA 212         1           1200-1310 (CN 22-302-001)         Lewin         2           CSC 311 Data Structures         3         3           Prec: CSC 102 and CSC 201         3         3
Coreq: MA 102         Levie           1200-1300 (CN 23-111-001)         Lewie           CSC 201 Basic Computer Organization and Assembly Language         Separation 100 (CN 23-201-001)           Preq: (SC 101 or CSC 111         Sta           CSC 202 Jatroduction to Numerical Methods         Separation 100 (CN 23-201-001)           Creq: MA 302 or MA 312         Separation 100 (CN 23-201-001)           Lawie (SC 101 or CSC 111)         Creq: MA 301 (CN 23-302-001)           Creq: MA 301 or MA 312         Lewie           1340-1310 (CN 23-302-001)         Lewie           CSC 311 Data Structures         Separation 100 (CN 23-001)
Preg: (SC 101 or (SS 111         1200-1300 (CN 23-201-001)         Sta           CSC 302 Introduction to Numerical Methods         Preg: (SS 101 or CSC 111         Preg: (SS 101 or CSC 111           Coreq: MA 301 or MA 312         1300-1510 (CN 23-302-001)         Lewi           CSC 311 Data Structures         Preg: (SS 102 and (SS 201)         Lewi
Preg. CSC 101 or CSC 111 Coreg: MA 301 or MA 312 1340-1510 (CN 23-302-001) CSC 311 Data Structures Preg. (SSC 102 and CSC 201
Coréq: MA 301 or MA 312 1340-1510 (CN 23-302-001) Lewi CSC 311 Data Structures Prec: (SS 102 and (SS 201
Preq: CSC 102 and CSC 201
0950-1120 (CN 23-311 001) Than
CSC 322 Applied Algebraic Structures Preg: MA 405
0800-0930 (CN 23-322-001) Robbin CSC 499 Undergraduate Research in Computer Science 1- Preg: Consent of instructor Hours arranged (CN 23-499-001) Staf

# **Crop Science**

*CS (HS, GN) 542 Plant Breeding Field Procedures	2
Preq: CS (HS, GN) 541	
Hours arranged (CN 24-542-001)	Caldwell
*Conducted on an arranged basis during the entire summer. Stu course first session only.	idents should register for the
CS 591 Special Problems	Credits Arranged
Preq: Consent of instructor	
Hours arranged (CN 24-591-001)	Staff
CS 699 Research	Credits Arranged
Preq: Graduate standing	
Hours arranged (CN 24-699-001)	Staff

SECOND SESSION CS 414 Weed Science Preg: CH 220 LR 9900-1200 (CN 24-414-001) LB 1300-1800 (Th (CN 24-414-101)	4
July 10-28 Three week course Refer to section on Special Three-Week Session for Adult and Communit in the front of this booklet for registration information.	Worsham y College Educators
CS 591 Special Problems Preq: Consent of instructor. Hours arranged (CN 24-591-001)	Credits Arranged Staff
CS 699 Research	Credits Arranged
Preq: Graduate standing. Hours arranged (CN 24-699-001)	Staff
Design	
FIRST SESSION	
DN 432 Environmental Assessment and Design Field Workshop Preq: DN 221/223 or DN 232 0800-1700 (CN 26-432-001)	3
(Note: Undergraduate students must also preregister for 2 credits of DN students must also preregister for 2 credits of LAR 595-G.)	495 B, and graduate
DN 494A Internship in Design Preq: Junior standing and approval of program director Hours arranged (CN 28-59-001)	*3-6 Loss
DN 494-B Internship in Design	*3-6
Preq: Junior standing and approval of program director Hours arranged (CN 26-494-002)	Sullivan
DN 494C Internship in Design Preq: Junior standing and approval of program director Hours arranged (CN 28-494-003)	*3-6
*Note: Maximum of six credit hours for DN 494	Foote
DN 495A* Independent Study in Design Preq: Junior standing and approval of program director and core chai	*1-3
Hours arranged (CN 26-495-001)	Loss
DN 495B* Independent Study in Design Preq: Junior standing and approval of program director and core chairma Hours arranged (CN 26-495-002)	*1-3 an Sullivan
DN 495C* Independent Study in Design Preq: Junior standing and approval of program director and core chair	
Hours arranged (CN 26-495-003) *Note: Maximum of six credit hours for DN 495 Students may not preregister for these courses. Courses may be add Day, May 23, 1978.	Foote ded on Registration
SECOND SESSION	
DN 494A Internship in Design	*3-6
Preq: Junior standing and approval of program director Hours arranged (CN 26-494-001)	Loss

DN 494B Internship in Design	*3-6
Preq: Junior standing and approval of program director Hours arranged (CN 26-494-002)	Sullivan
*Note: Maximum of six credit hours for DN 494	
DN 495A* Independent Study in Design	*1-3
Preq: Junior standing and approval of program director and core chairman Hours arranged (CN 25-495-001)	Loss
DN 495B* Independent Study in Design	*1-3
Preq: Junior standing and approval of program director and core chairman Hours arranged (CN 26-495-002)	Sullivan
*Note: Maximum of six credit hours for DN 495	

Students may not preregister for these courses. Courses may be added on Registration Day, July, 5, 1978.

# Economics and Business

EB 201 Economics I 0600-0580 (CN 27-201-001) 0600-0580 (CN 27-201-002) 0550-1120 (CN 27-201-002) 1140-1310 (CN 27-201-004)	3 Knoeber Fearn McElroy Fisher
EB 202 Economics II Preq: EB 201 0950-1120 (CN 27-202-001)	3 Ball
EB 301 Production and Prices Preq: MA 112 and EB 201 or EB 212 0950-1120 (CN 27-301-001)	3 Knoeber
EB 302 Aggregate Economic Analysis: Theory and Policy Preq: EB 201 and MA 112 0800-0930 (CN 27-302-001)	3 McElroy
EB 304 Financial Institutions Preg: EB 201 0950-1120 (CN 27-304-001)	3 Fisher
EB 332 Industrial Relations Preg: EB 201 or 212 0950-1120 (CN 27-332-001)	3 Fearn
EB (ST) 350 Economics and Business Statistics Preq: MA 112, EB 201, EB 202 or equivalent 0800-0930 (CN 27-350-001)	3 Wilson
EB 448 International Economics Preq: EB 301 0800-0930 (CN 27-448-001)	3 Ball
EB 490 Senior Seminar in Economics Preq: EB 301 and 302 and 350 or ST 311 (plus two courses from list tives).	
0950-1120 (CN 27-490-001)	Wilson

EB 501 Price Theory Preq: MA 112 and EB 301	3
0800-0930 (CN 27 501-001)	Holthauser
EB 598 Topical Problems in Economics Preq: Consent of instructor Hours arranged (CN 27-598-001)	1-6 Staff
*EB 649 Monetary Aspects of International Trade	3
Preq. EB 502 0950-1120 MWF (CN 27-649 001) June 5-July 28 Eight week course "Students must follow normal first summer session preregistrat procedures for this course."	Grennes
EB 699 Research in Economics	Credits Arranged
Preq: Graduate standing. Hours arranged (CN 27-699-001)	Staff
Economics and Business	
SECOND SESSION	
EB 201 Economics 1 0800-0930 (CN 27-201-001) 0800-0930 (CN 27 201-002) 0950 1120 (CN 27 201-003)	3 Aharony Staff Staff
EB 202 Economics II Preq: EB 201 0950-1120 (CN 27 202-001)	3
	Staff
EB 301 Production and Prices Preq: MA 112 and EB 201 or EB 212 0800-0930 (CN 27-301-001)	3 Staff
EB 302 Aggregate Economic Analysis: Theory and Policy	3
Preq: EB 201 and MA 112 0950-1120 (CN 27-302-001)	Lapp
EB 304 Financial Institutions	3
Preq: EB 201 0800-0930 (CN 27-304-001)	Staff
EB 420 Corporation Finance Preq: EB 201 or 212, and ACC 260	3
0950-1120 (CN 27-420 001)	Aharony
EB 490 Senior Seminar in Economics Preq: EB 301 and 302 and 350 or ST 311 (plus two courses from list of res 1140-1310 (CN 27-490-001)	3 tricted EB electives) Staff
EB 502 Income and Employment Theory Preg: MA 112, EB 301 and 302.	3
1140-1310 (CN 27-502-001)	Lapp
EB 598 Topical Problems in Economics Preq: Consent of instructor	1-6
Hours arranged (CN 27-598-001)	. Staff

#### Education

#### FIRST SESSION

ED 344 School and Society Preq: Junior or senior standing 0950-1120 (CN 28-344-001)	3 Serow
ED 451 Teaching Secondary School Reading Preq: Admission to teacher certification program 0910-1010 (CN 28-451-001)	2 Hanish
ED 496 Senior Seminar in Education Preq: Consent of instructor Hours arranged (CN 28-496-001)	1-3 Staff
PED 508 Severe and Profound Mental Retardation Preq.: ED 531 or consent of instructor Coreq: ED 550 may be taken concurrently with ED 531 1610-1900 TTh (CN 28-508-001) May 16-June 29, Six week course	3 Hasselbring
ED 510 Adult Education: History, Philosophy, Contemporary Natur Preq: Graduate standing 0800-0930 (CN 28-510-001)	e 3 Glass
*ED 530 Theories and Techniques of Counseling Preg. Six hours ED or PSY Cores: ED 520 or equivalent 1610-1900 TTh (CN 28-530-001) May 16-June 29 Six week course	3 Locke
*ED 533 Group Counseling Prea: ED 530 1610-1900 MW (CN 28-533-001) May 15-June 28 Six week course	3 Locke
*ED 558 Resource Teaching in Special Education Preq.: ED 506 or consent of instructor 1610-1900 MW (CN 28 558-001) May 15 June 28 Six week course	3 Mahmoud
ED 559 Learning Concepts and Theories Applied to Adult and Community College Education Preq: Six hours ED 1140-1310 (CN 28-559-001)	3 Glass
ED 570 Foundations of Mathematics Education Preq: ED 471 or equivalent 1830-2030 (CN 28-570-001)	3 Kolb
ED 596 Topical Problems in Adult and Community College Education Preq: Graduate standing Hours arranged (CN 28-596-001)	Credits Arranged Staff

\*Do Not Preregister for this course. Refer to section on Early Summer Sessions for Teachers in the front of this booklet for registration instructions.

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Staff
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Cole
r Teacher
1-3
Staff
3-9
Staff
Aranged
oran
3
Bryan
8
Smith
3
Ball
Staff
1-3
Staff
3
Gragg
3
Cox
3
Staff
Staff

ED 512 Teaching Mathematics in Elementary and Junior High School	3
Preq: ED 471 or equivalent 0950-1120 (CN 28-512-001)	Watson
ED 520 Introduction to Guidance and Counseling Preq: 6 hours ED or PSY 0950-1120 (CN 28-520-001)	3 Staff
ED 522 Career Exploration	3
Preg: ED 344, graduate standing or consent of instructor 0800-0930 (CN 28-522-001)	Cox
ED 524 Information Processes and Group Guidance Preq: 6 hours ED or PSY 1140-1310 (CN 28-524-001)	3 Gerler
ED 526 Teaching in College Preq: None. Designed for graduate students not in ED 1340 1510 (CN 28-526-001)	8 Simpson
ED 528 Cooperative Occupational Education	3
Preq: Consent of instructor 0950-1120 (CN 28-528-001)	Smith
ED 532 Introduction to Educational Inquiry	3
Preq: Graduate standing 1140-1310 (CN 28-532-001)	Staff
*ED 538 Instructional Strategies in Adult and Community College Preq: ED 559 and graduate standing 1020-1300 (CN 28-538-001)	Education
July 10-28—Three week course	Leagans
*ED 541 Community Education Preq: ED 503 and SOC 513 1800-2050 (CN 28-541-001)	3
July 10-28-Three week course	Compton
*ED 593-C Special Problems in Agriculture Education - Teaching Vocational Agriculture Preq: ED 411 or equivalent 1340-1650 (CN 28-593-001)	3
July 10-28—Three week course	Jewell
ED 594 Special Problems in Science Teaching Preq: ED 476 or equivalent 0950-1120 (CN 28 594 001)	3 Simpson
*ED 596 Topical Problems in Adult and Community College Education Prea: Graduate standing	Credits Arranged
Hours arranged (CN 28-596-001)	Staff
*ED 596A Topical Problems in Adult and Community College Edu Issues in Aging Preq: Graduate standing 1800-2200 (CN 28-596-002) July 10-28 Three week course	acation— 3 Maddox
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\*Refer to section on Special Three Week Summer Session for Adult and Community College Educators in the front of this booklet for registration instructions.

*ED 396B Topical Problems in Adult and Community College Education— The Future of Adult Education Preq: Graduate standing 1340-1630 (CN 28-396-003) July 10-21—Fow week course	2 Ziegler
*ED 596C Topical Problems in Adult and Community College Education- Adults' Learning Projects: Research and Innovations Preq: Graduate standing 1304-1530 (CN 28-596-004)	1
July 10-14-One week course	Tough
ED 586D Topical Problems in Adult and Community College Education— A Social Systems Perspective on Adult Education Preq: Carduate standing 1340-16301 (CN 28-369-065) July 17-21 One week course	1
*ED 596F Topical Problems in Adult and Community College Education— Policy Analysis in Adult Education Preq: Graduate standing 1340-1630 (CN 28-596-006)	1
July 24-28 One week course	Ziegler
*ED 597U Special Problems in Education: Use of the Arts in the Basic Curriculum Preq: Consent of instructor and graduate standing 0800-1200 (CN 28-597-002)	3
July 10-July 28-Three week course	Hyatt
ED 597 Special Problems in Education Preq: Consent of instructor and graduate standing	1-3
Hours arranged (CN 28-597-001)	Staff
ED 598M Special Problems in Curriculum and Instruction: Media Handica Preq: 6 hours of ED/PSY, consent of instructor	
0950-1120 (CN 28-598-001)	Ball
ED 598R Special Problems in Curriculum and Instruction: Materials for De- tal Reading	velopmen- 3
Preq: 6 hours ED/PSY 0800-0930 (CN 28-598-002)	Staff
ED 598T Special Problems in Curriculum and Instruction: Teaching Gifted and Talented Preq: Advanced undergraduate and graduate 6 hours ED/PSY 1340-1620 (CN 28-598-003)	3
July 6-July 27-Three week course	Aubrecht
ED 599 Research Projects in Education Preq: Consent of instructor, ED 532 or equivalent	1-3
Hours arranged (CN 28-599-001)	Staff
ED 601 Administrative Concepts and Theories Applied to Adult and Community College Education Preq: ED 600 or a comparable course(s) on Organizational Theory	3
1140-1310 (CN 28-601-001)	Gragg
*Refer to section on Special Three Week Summer Session for Adult and Commun	ity College

ED 605 Education and Supervision of Teachers of Mathematics and Science	3
Preq: ED 470 or 475 or equivalent, ED 570 or 592 or 594. 1340-1510 (CN 28-605-001)	Watson
ED 621 Internship in Education Preg: Nine credit hours in graduate level courses and consent of instructor Hours arranged (CN 28-621-001)	3 9 Staff
ED 633 Development and Coordination of School Guidance Programs Preg: ED 520 or ED 534, ED 524, ED 530, or consent of instructor Coreq: ED 533 1340-1510 (CN 28-633-001)	3 Gerler
The Additional Control of the State of the State of the State of the State of State	its Arranged
Preq: 15 hours; consent of instructor Hours arranged (CN 28-699-001)	Staff
Electrical Engineering	
FIRST SESSION	
EE 302 Numerical Applications in Electrical Engineering Preg: EE 202	3 Eckels
0730-0900 (CN 30-302-001)	LCKels 3
EE 331 Principles of Electrical Engineering Preq: MA 201, PY 208 Not available to undergraduates in electrical engineer 0800-0930 (CN 30-331-001)	
EE 332 Principles of Electrical Engineering Preg: EE 331. Not available to undergraduates in electrical engineering. 0730-0900 (CN 30-332-001)	3 Barelay
EE 520 Fundamentals of Logic Systems Preq: EE 340, B average in EE and MA 0950 1120 (CN 30 520-001)	3 Staff
EE 699 Electrical Engineering Research Cred Preq: Graduate standing in electrical engineering and approval of advisor Hours arranged (CN 30-699-001)	lits Arranged Staff
SECOND SESSION	
EE 350 Electric Power Utilization in Manufacturing Processes Preg: PY 212, MA 201. Not availale to undergraduates in electrical engineer LR 0950-1120 (CN 30-350-001) LB 1340-1620 Th (CN 30-350-101)	3 Easter Easter
EE 699 Electrical Engineering Research Cred Preq: Graduate standing in electrical engineering and approval of advisor Hours arranged (CN 30-699-001)	lits Arranged Staff
Engineering (General Courses)	
FIRST SESSION	
E 101 Engineering Graphics I 0800-0930 (CN 31-101-001) 0950-1120 (CN 31-101-002)	2 Staff Staff

SECOND SESSION	
E 101 Engineering Graphics I 0800-0930 (CN 31-101-001) 0950-1120 (CN 31-101-002)	2 Staff Staff
Engineering Science and Mechanics	
FIRST SESSION	
ESM 200 Introduction to Mechanics Coreq: MA 202 0800-0930 (CN 34-200-001)	3 Staff
ESM 205 Principles of Engineering Mechanics Preq: PY 205 Coreq: MA 202 0950-1120 (CN 34-205-001)	3 Howland
1140-1310 (CN 34-205-002)	Edwards
ESM 301 Mechanics of Solids Preq: ESM 200	3
0800-0930 (CN 34-301-001)	Staff
ESM 303 Fluid Mechanics I Preq: ESM 200 or ESM 205 0950-1120 (CN 34-303-001) 1140-1310 (CN 34-303-002)	3 Hassan Afify
ESM 305 Engineering Dynamics Preq: ESM 205 Coreq: MA 301 0800-0930 (CN 34-305-001)	3 Howland
ESM 307 Solid Mechanics I Pree: ESM 205 Coreq: MA 301 0950-1120 (CN 34-307-001)	Edwards
SECOND SESSION	
ESM 200 Introduction to Mechanics Coreq: MA 202	3 Staff
0800-0930 (CN 34-200-001)	3
ESM 205 Principles of Engineering Mechanics Preq: PY 205 Coreq: MA 202 0800-0930 (CN 34-205-001) 0950-1120 (CN 34-205-002)	3 Daggerhart Bailey
ESM 301 Mechanics of Solids Preq: ESM 200 0950-1120 (CN 34-301-001)	3 Staff
ESM 303 Fluid Mechanics I Preq: ESM 200 or ESM 205 0950-1120 (CN 34-303-001)	3 Mulligan
ESM 305 Engineering Dynamics Preq: ESM 205 Coreq: MA 301	3
0800-0930 (CN 34-305-001)	Staff

## English

FIRST SESSION

ENG 111 Composition and Rhetoric General University requirement.	3
0800-0930 (CN 36-111-001)	Staff
0950-1120 (CN 36-111-002) 1140-1310 (CN 36-111-003)	Staff Staff
ENG 112 Composition and Reading General University requirement.	3
Preq: A grade of C or better in ENG 111. 0800-0930 (CN 36-112-001)	Staff
0950-1120 (CN 36-112-002) 1140-1310 (CN 36-112-003)	Staff Staff
NOTE: The prerequisite for all advanced courses in writing, language completion of ENG 111 and ENG 112. Desirable preparation fi of the 300 level on above is ENG 205, ENG 206, ENG 207, ENG of ENG 261, ENG 262 or ENG 265, ENG 266.	or literature courses

ENG 205 Studies in Great Works of Literature The courses ENG 205, ENG 206, ENG 207, and ENG 208 are designed enrolled in Humanities and Social Sciences.	3 I for students not
0800-0930 (CN 36-205-001)	Staff
0950-1120 (CN 36-205-002)	Staff
ENG 208 Studies in Fiction The courses ENG 205, ENG 206, ENG 207, and ENG 208 are designed enrolled in Humanities and Social Sciences. 0000-0900 (CN 38-208-001) 0350-1120 (CN 38-208-002) 1140-1310 (CN 38-208-002)	3 I for students not Staff Staff Staff
ENG 261 English Literature I	3
0800-0930 (CN 36-261-001)	Staff
0950-1120 (CN 36-261-002)	Staff
ENG 265 American Literature I	3
0800-0930 (CN 36-265-001)	Staff
0950-1120 (CN 36-265-002)	Staff
1140-1310 (CN 36-265-003)	Staff
ENG 321 The Communication of Technical Information	3
0800-0930 (CN 36-321-001)	Dandridge
0950-1120 (CN 36-321-002)	Dandridge
ENG 323 Creative Writing: Fiction	3
1140-1310 (CN 36-323-001)	Owen
ENG 371 The Modern Novel	3
0950-1120 (CN 36-371-001)	Moore
ENG 376 Fantasy and Science Fiction	3
0950-1120 (CN 36-376-001)	Meyers
ENG 449 The Renaissance	3
0950-1120 (CN 36-449-001)	Young
ENG 468 American Romanticism	3
0800-0930 (CN 36-468-001)	Anhorn

ENG 651 Chaucer Preq: ENG 451 or equivalent and graduate standing	3
0800-0930 (CN 36-651-001)	Meyers
ENG 655 American Romantic Period Preq: Graduate standing 0950-1120 (CN 36-655-001)	3 Stein
ENG 698 Bibliography and Methodology	3
Preq: Graduate standing with approved thesis topic Hours arranged (CN 36-698-001)	Thesis Director
ENG 699 Research in Literature Preq: Consent of graduate adviser	3 Thesis Director
Hours arranged (CN 36-699-001) SECOND SESSION	Thesis Director
ENG 111 Composition and Rhetoric General University requirement. 0800-0830 (CN 35-111-001) 0950-1120 (CN 36-111-002) 1140-1310 (CN 36-111-003)	3 Staff Staff Staff
ENG 112 Composition and Reading General University requirement. Preg: A grade of C or better in ENG 111.	3
Pret, A grade of consecter in Excernit. 0800-0930 (CN 36-112-001) 0950-1120 (CN 36-112-002) 1140-1310 (CN 36-112-003)	Staff Staff Staff
NOTE: The prerequisite for all advanced courses in writing, language, or completion of ENG 111 and ENG 112, Desirable preparation for l of the 300 level or above is ENG 205, ENG 206, ENG 207, ENG 208 of ENG 261, ENG 262 or ENG 265, ENG 266.	iterature courses
ENG 205 Studies in Great Works of Literature The courses ENG 205, ENG 206, ENG 207, and ENG 208 are designed enrolled in Humanities and Social Sciences.	3 for students not
0800-0930 (CN 36-205-001) 0950-1120 (CN 36-205-002)	Staff Staff
ENG 208 Studies in Fiction The courses ENG 205, ENG 206, ENG 207, and ENG 208 are designed	3 for students not
enrolled in Humanities and Social Sciences. 0800-0930 (CN 36-208-001) 0950-1120 (CN 36-208-002) 1140-1310 (CN 36-208-003)	Staff Staff Staff
ENG 215 Principles of News and Article Writing 0800-0930 (CN 36-215-001)	3 Cockshutt
ENG 262 English Literature II 0800-0930 (CN 36-262-001) 0950-1120 (CN 36-262-002)	3 Staff Staff
ENG 266 American Literature II 0800-0390 (CN 36-266-001) 0950-1120 (CN 36-266-002) 1140-1310 (CN 36-266-003)	3 Staff Staff Staff

ENG 315 Reporting and Editing Preo: ENG 215	3
0950-1120 (CN 36-315-001)	Cockshutt
ENG 321 The Communication of Technical Information 0800-0930 (CN 36-321-001) 0950-1120 (CN 36-321-002)	3 Seidel Seidel
ENG 346 Literature of the Western World I 1140-1310 (CN 36-346-001)	3 Smith
ENG 391 Introduction to American Folklore 0950-1120 (CN 36-391-001)	3 Betts
ENG 469 American Realism and Naturalism 0950-1120 (CN 36-469-001)	3 West
ENG 485 Shakespeare 0800-0930 (CN 36-485 001)	3 Baines
ENG 660 Victorian Poetry	3
Preq: Graduate standing 0950-1120 (CN 36-660-001)	Harrison
ENG 675 20th-Century American Prose	3
Preq: Graduate standing 0800-0930 (CN 36-675-001)	Reynolds
ENG 698 Bibliography and Methodology	3
Preq: Graduate standing with approved thesis topic Hours arranged (CN 36 698-001)	Thesis Director
ENG 699 Research in Literature	3
Preq: Consent of graduate adviser Hours arranged (CN 36-699 001)	Thesis Director
Entomology	
FIRST SESSION	
ENT 590 Special Problems	Credits Arranged
Preq: Consent of instructor Hours arranged (CN 38-590-001)	Staff
ENT 699 Research	Credits Arranged
Preq: Graduate standing Hours arranged (CN 38-699-001)	Staff
SECOND SESSION	
ENT (ZO) 425 General Entomology Preq: ZO 201 or ZO 202	3
LR 0800-0900 MWF (CN 38-425-001) LB 1340-1650 MW (CN 38-425-101)	Meyer Meyer
ENT 590 Special Problems	Credits Arranged
Preq: Consent of instructor Hours arranged (CN 38-590-001)	Staff
ENT 599 Research	Credits Arranged
Preq: Graduate standing Hours arranged (CN 38-699-001)	Staff
	Court

### Food Science

FS 491 Special Topics in Food Science Preq: Senior standing or consent of instructor Hours arranged (CN 39-491-001)	1-6 Staff
FS 591 Special Problems in Food Science Preq: Senior or graduate standing Hours arranged (CN 39-591-001)	Maximum 6 Staff
FS 691 Special Research Problems in Food Science Hours arranged (CN 39-691-001)	Staff Credits Arranged Staff
FS 699 Research in Food Science Hours arranged (CN 39-699-001)	Credits Arranged Staff
SECOND SESSION	
FS 591 Special Problems in Food Science Preq: Senior or graduate standing Hours arranged (CN 39-591-001)	Maximum 6 Staff
FS 691 Special Research Problems in Food Science Hours arranged (CN 39-691-001)	Credits Arranged Staff
FS 699 Research in Food Science Hours arranged (CN 39-699-001)	Credits Arranged Staff
French	
FIRST SESSION	
FLF 101 Elementary French I 0800-0930 (CN 64-101-001) 0800-0930 (CN 64-101-002)	3 Stewart Paschal
FLF 102 Elementary French II Preg: FLF 101 1140-1310 (CN 64-102-001)	3 Hammond
FLF 201 Intermediate French I Preq: FLF 102 or FLF 105 0950-1120 (CN 64-201-001) 0550-1120 (CN 64-201-002)	3 Stewart Hammond
SECOND SESSION	
FLF 102 Elementary French II Preq: FLF 101 0800-0930 (CN 64-102-001)	3 Stack
FLF 202 Intermediate French II	3
Preq: FLF 201 0950-1120 (CN 64-202-001)	Staff
FLF 401 French for Graduate Students Not open to undergraduates. 0950-1120 (CN 64-401-001)	3 Stack

#### German

German	
FIRST SESSION	
FLG 101 Elementary German I 0800-0930 (CN 65-101-001)	3 Rollins
FLG 201 Intermediate German I Preq: FLG 102	3
0950-1120 (CN 65-201-001)	Rollins
FLG 401 German for Graduate Students Not open to undergraduates 0800-0393 (CN 65-401-001)	3 Simonsen
SECOND SESSION	
FLG 102 Elementary German II Preq: FLG 101	3
0800-0930 (CN 65-102-001)	Tucker
Spanish	
FIRST SESSION	
FLS 101 Elementary Spanish I 0950-1120 (CN 68-101-001) 0950-1120 (CN 68-101-002)	3 Jezierski Cofresi
FLS 102 Elementary Spanish II Preq: FLS 101 0800-0300 (CN 68-102-001)	3 Kelly
FLS 105 Intensive Elementary Spanish Equivalent of FLS 101 plus FLS 102	6
0950-1250 (CN 68-105-001)	Kelly, Confresi
FLS 201 Intermediate Spanish I Preg: FLS 102 or FLS 105	3
1140-1310 (CN 68-201-001)	Jezierski
SECOND SESSION	
FLS 102 Elementary Spanish II Preq: FLS 101	3
0950-1120 (CN 68-102-001) 0950-1120 (CN 68-102-002)	Feeny Myers
FLS 201 Intermediate Spanish I Preg: FLS 102 or FLS 105	3
0800-0930 (CN 68-201-001)	Myers
(CN 68-201-002) Special three week study tour to Mexico City, July 3 call Dr. John Kelly, Department of Foreign Languages and Literal	July 24. For information tures 737-2476.
FLS 202 Intermediate Spanish II	3
Preq: FLS 201	

Preq: FLS 201 1140-1310 (CN 68-202-001)

Feeny

## Forestry

FIRST SESSION	
FOR 204 Silviculture Summer Camp 0800-1700 (CN 40-204-001)	2 Staff
FOR 263 Dendrology Summer Camp Preq: FOR 210, FOR 211 0800-1700 (CN 40-263-001)	1 Staff
FOR 264 Forest Protection Summer Camp Preq: Junior standing in FOR 0800-1700 (CN 40-264-001)	2 Staff
FOR 274 Mapping and Mensuration Summer Camp Preq: FOR 272 0800-1700 (CN 40-274-001)	4 Steensen, Jervis
FOR 284 Utilization Summer Camp Preq: Junior standing in FOR 0800-1700 (CN 40-284-001)	1 Staff
FOR 491 Senior Problems in Forest Resources Preq: Consent of department Hours arranged (CN 40-491-001)	Credits Arranged Staff
FOR 591 Forestry Problems Preq: Advanced undergraduate or graduate standing Hours arranged (CN 40-591-001)	Credits Arranged Staff
FOR 692 Advanced Forest Management Problems Preq: Graduate standing Hours arranged (CN 40-692-001)	Credits Arranged Staff
FOR 699 Problems and Research Preq: Graduate standing Hours arranged (CN 40-699-001)	Credits Arranged Staff
SECOND SESSION	
FOR 491 Senior Problems in Forestry Preq: Consent of department Hours arranged (CN 40-491-001)	Credits Arranged Staff
FOR 591 Forestry Problems Preq: Advanced undergraduate or graduate standing Hours arranged (CN 40-591-001)	Credits Arranged Staff
FOR 692 Advanced Forest Management Problems Preq: Graduate standing Hours arranged (CN 40-692-001)	Credits Arranged Staff
FOR 699 Problems and Research Preq: Graduate standing Hours arranged (CN 40-699-001)	Credits Arranged Staff

## Genetics

FIRST SESSION	
GN 301 Genetics in Human Affairs Preq: None. (Students should have sophomore standing.) 0800-0930 (CN 41-301-001)	3 McKenzie
GN 411 The Principles of Genetics Preq: BS 100, junior standing 1140 1310 (CN 41-411-001)	3 Staff
GN 695 Special Problems in Genetics Preg: Advanced graduate standing, consent of instructor Hours arranged (CN 41-695-001)	1-3 Staff
GN 699 Research Preq: Graduate standing, consent of instructor Hours arranged (CN 41-699-001)	Credits Arranged Staff
SECOND SESSION	
GN 695 Special Problems in Genetics Preq: Advanced graduate standing, consent of instructor Hours arranged (CN 41-695 001)	1-3 Staff
GN 699 Research Preq: Graduate standing, consent of instructor Hours arranged (CN 41-699-001)	Credits Arranged Staff
Geology	
FIRST SESSION	
GY 593 Advanced Topics in Geology Preq: Consent of instructor Hours arranged (CN 43-593-001)	1 6 Staff
GY 699 Geological Research Preq: Consent of instructor Hours arranged (CN 43-699-001)	Credits Arranged Staff
SECOND SESSION	
GY 465 Geologic Field Camp Preq: GY 351, GY 440, GY 452 Hours arranged (CN 43-465-001)	6 Aldrich
GY 593 Advanced Topics in Geology Preg: Consent of instructor Hours arranged (CN 43-593-001)	1-6 Staff
GY 699 Geological Research Preq: Consent of instructor Hours arranged (CN 43-699-001)	Credits Arranged Staff
History	
FIRST SESSION	
HI 205 Western Civilization Since 1400 0800-0930 (CN 44-205-001)	3 Greenlaw
HI 207 The Ancient World to 180 A.D. 0950-1120 (CN 44-207-001)	3 Newby

HI 208 The Middle Ages	3
1140 1310 (CN 44 208 001)	Newby
HI 233 The World in the 20th Century	3
0950 1120 (CN 41 233-001)	Greenlaw
HI 243 United States, 1845-1914	3
0800-0930 (CN 44-243-001)	Constantin
HI 244 United States Since 1914	3
0800-0930 (CN 44-241 001)	Collins
0950 1120 (CN 14-244 002)	Constantin
HI 264 Modern East Asia: 1800 to Present	3
0950 1120 (CN 44-264-001)	Beers
HI 450 The United States in Prosperity and Depression, 1919-1939 Preq. Three hours of history 0950-1120 (CN 41-450-001)	3 Collins
HI 454 U.S. Foreign Relations Preq: Three hours of history 1140-1310 (CN 44 454-001)	3 Beers
HI 498 Special Topics in History Preq: Three hours of history Hours arranged (CN 44-498 001)	1-6 Riddle
HI 552 Application of Principles of Administration of Archives Preq Six hours of advanced history Hours arranged (CN 44 552 001)	3 Mitchell
HI 598 Decial Topics in History Prog. Six hours of advanced history Hours arranged (CN 44-598-001)	1-6 Wheeler
HI 699 Research in History Preq: Six hours of advanced history Hours arranged (I'N 44-699-001)	1-6 Staff
SECOND SESSION	
HA 201 History of Art from Ancient Greece	3
0800-0930 (CN 50-201-001)	Ketchiff
HA 202 History of Art from the Renaissance	3
0950-1120 (CN 50-202-001)	Ketchiff
HI 205 Western Civilization Since 1400	3
0800-0930 (CN 44-205 001)	Banker
HI 208 The Middle Ages	3
0950-1120 (CN 44-208-001)	Banker
HI 233 The World in the 20th Century	3
0950-1120 (CN 44-233-001)	Brown
HI 243 United States, 1845-1914	3
0800-0930 (CN 44-243-001)	King
HI 244 United States Since 1914	3
0950-1120 (CN 44-244-001)	Patton
1140-1310 (CN 44-244-002)	King

HI 298P Special Topics in History - The Age of Washington and I 1140-1310 (CN 44-298-001)	Dubois: 1890-1920 3 Patton
HI 463 North Carolina to 1860 Preq: Three hours of history 0800 0930 (CN 44-463-001)	3 Elliot
. HI 498 Special Topics in History Preq: Three hours of history Hours arranged (CN 44-498-001)	1-6 Riddle
HI 545 The American Civil War Preg: Six hours of advanced history	3
0950-1120 (CN 44-545-001)	Harris
HI 598 Special Topics in History Preq: Six hours of advanced history Hours arranged (CN 44 598 001)	1-6 Mitchell
HI 699 Research in History	16
Preq: Six hours of advanced history Hours arranged (CN 44-699-001)	Staff
Horticultural Science	
FIRST SESSION	
HS 212 Ornamental Plants Preq: BS 100 0950-1310 (CN 45-212-001)	3 Southall
	n
HS 342 Landscape Horticulture 0800-0930 (CN 45-342-001)	Green
HS 352 Landscape Design Presentation 1340-1440 (CN 45-352 001)	2 Green
HS 495 Special Topics in Horticultural Science Hours arranged (CN 45-495-001)	1-6 Staff
HS 599 Research Principles	1-6
Preq: Consent of the instructor Hours arranged (CN 45-599 001)	Staff
HS 699 Research	Credits Arranged
Preq: Graduate standing in horticulture, consent of advisory committe Hours arranged (CN 45 699-001)	ee chairman Staff
SECOND SESSION	
*HS 440 Greenhouse Management Preq: BS 100, SSC 200 LR 0900-1100 (CN 45-440-001) LB 1300-1600 (CN 45-440-101)	3
July 10-28—Three week course	Love
*Refer to section on Special Three-Week Summer Session for Adult and Educators in the front of this booklet for registration instructions. D volved, students should take no other courses during July 10-28.	

HS 495 Special Topics in Horticultural Science	1-6
Hours arranged (CN 45-495-001)	Staff

HS 599 Research Principles Preg: Consent of instructor	1-6
Hours arranged (CN 45-599-001)	Staff
HS 699 Research Preu: Graduate standing in horticulture, consent of advisory commit	Credits Arranged ttee chairman
Hours arranged (CN 45-699-001)	Staff
Industrial Arts	
FIRST SESSION	
IA 351 General Ceramics 1020-1300 (CN 47-351-001)	3 Troxler
IA 368 Technical Drawing II Preq: E 101 or IA 113 0730-1010 (CN 47-368-001)	3 Troxler
SECOND SESSION	
IA 115 Wood Processing I 0730-1010 (CN 47-115-001)	3 Young
IA 590 Laboratory Problems in Industrial Arts	3
Preq: Senior standing, consent of instructor 1340-1620 (CN 47-590-001)	Young
Industrial Engineering	
FIRST SESSION	
IE 495 Project Work in Industrial Engineering Preq: Senior standing	1-6 Staff
Hours arranged (CN 49-495-001)	5tari 1-6
IE 591 Project Work Preq: Graduate or senior standing Hours arranged (CN 49-591-001)	I-6 Staff
IE 651 Special Studies in Industrial Engineering	Credits Arranged
Preq: Graduate standing Hours arranged (CN 49-651-001)	Staff
IE 694 Advanced Problems in Ergonomics	3
Preq: IE(PSY) 540, ST 515 0900-1200 MWF (CN 49-694-001)	Pearson
IE 699 Industrial Engineering Research	Credits Arranged
Preq: Graduate standing Hours arranged (CN 49-699-001)	Staff
SECOND SESSION	
IE 495 Project Work in Industrial Engineering Preq: Senior standing	1-6
Hours arranged (CN 49-495-001)	Staff
IE 591 Project Work	1-6
Preq: Graduate or senior standing Hours arranged (CN 49-591-001)	Staff

IE 651 Special Studies in Industrial Engineering Preq: Graduate standing	Credits Arranged Staff
Hours arranged (CN 49 651-001) IE 699 Industrial Engineering Research	Credits Arranged
Preq: Graduate standing Hours arranged (CN 49-599-001)	Staff
Landscape Architecture	
FIRST SESSION	
LAR 395 Independent Study Preg: Graduate standing and approval of program director and advisory Hours arranged (CM 52-690-001) *Students may not preregister for this course. Course may be added of May 23, 1978.	Sullivan
SECOND SESSION	
LAR 595 Independent Study Preq: Graduate standing and approval of program director and advisory Hours arranged (CN 52 595-001)	*1 3 committee required Sullivan
LAR 698* Advanced Research Projects	2-6
Preq: Two LAR 600 studios and consent of instructor Hours arranged (CN 52-698-001)	Sullivan
*Students may not preregister for these courses. Courses may be added July 5, 1978.	on Registration Day,
Marine Sciences	
FIRST SESSION	
MAS 699 Research in Marine Sciences Preq: Graduate standing and consent of advisory committee Hours arranged (CN 53-699-001)	Credits Arranged
SECOND SESSION	
MAS 693 Special Topics in Marine Sciences	3
Preq: Graduate standing and consent of instructor 1520-1630 (CN 53-693-001)	Snyder Conr
MAS 699 Research in Marine Sciences	Credits Arranged
Preq: Graduate standing and consent of advisory committee Hours arranged (CN 53-699-001)	Staff
Materials Engineering	
FIRST SESSION	
MAT 200 Mechanical Properties of Structural Materials Preq: CH 105 and the first course in ESM.	2
LR 1020-1120 MWF (CN 61 200-001)	Fahmy
LB 1340-1750 TTh (CN 61-201-101) (CN 61-201-102)	Fahmy, Staff

MAT 201 Structure and Properties of Engineering Materials Preus C11 105	3
LR 1200 1.00 (CN 61 201 001 LB 1340-1750 MWF CN 61 201 101 CN 61 201 102)	Fahmy Staff Staff
MAT 195 Materials Engineering Projects Prog. Junior or serier standing	1-6
Hours arranged CN 61 495 001)	Staff
MAT 595 Advanced Materials Experiments Prop Sentor or graduate standing Hours arranged (CN 61-555.001)	1-3 Staff
MAT 599 Materials Engineering Research Hours arranged (CN 61 699 00)	Credits Arranged Staff
SECOND SESSION	
MAT 201 Structure and Properties of Engineering Materials Press CH 105	3
LR 1200 1300 (CN 61-201-001) LB 1340 1750 MWF (CN 61-201-101) (CN 61 201 102)	Fahmy Staff Staff
MAT 195 Materials Engineering Projects Preq Junior or senior standing	16
Hours arranged (CN 61-495-001)	Staff
MAT 595 Advanced Materials Experiments Prog. Senior or graduate standing Hours arranged (CN 61-595-001)	1-3 Staff
MAT 692 Special Topics in Materials Engineering	13
Preq Graduate standing Hours arranged (CN 61 692-001)	Staff
MAT 699 Materials Engineering Research Hours arranged CN 61 699-001	Credits Arranged Staff
Mathematics	
FIRST SESSION	
MA 102 Analytic Geometry and Calculus I Preg. MA 111 or equivalent completed in high school Credit in both MA 102 and MA 112 is not allowed.	4
0730 0940 (CN 54 102-001) (CN 54-102 002) 1020 1230 (CN 54-102 003) (CN 54-102-004)	Staff Staff
MA 111 Algebra and Trigonometry 0730 0940 (CN 54 111 001) (CN 54-111-002) 1020-1230 (CN 54-111-003) (CN 54-111-004)	4 Staff Staff
MA 112 Analytic Geometry and Calculus A Preq: MA 111 or equivalent completed in high school Credit in both MA 102 and MA 112 is not allowed.	4
Credit in ooth wA 102 and WA 112 is not allowed. 0730-0940 (CN 54 112-001) (CN 54-112-002) 1020 1230 (CN 54-112-003) (CN 54-112-004)	Staff Staff
MA 113 Introduction to Calculus Preg: MA 111 or equivalent completed in high school Credit is not allowed in more than one of MA 102. MA 112. MA 113.	4
MA 113 may not be substituted for MA 102 as a curricular requiremen 1020-1230 (CN 54-113-001)	nt. Staff

MA 114 Introduction to Finite Mathematics with Applications Prec: MA 111 or equivalent completed in high school	3
0800-0930 (CN 54-114-001)	Staff
MA 115 Introduction to Contemporary Mathematics Credit in MA 115 is not allowed if student has credit for MA 102, MA 112, MA 114, Credit towards graduation is not given for MA 115 in most curricula.	
1140-1310 (CN 54-115-001)	Staff
MA 122 Mathematics of Finance Preq: MA 111 or MA 115 or equivalent completed in high school 0950-1120 (CN 54-122-001)	3 Stafí
MA 201 Analytic Geometry and Calculus II	4
Preg: MA 102 0730-0940 (CN 54-201-001) (CN 54-201-002) (CN 54-201 003) 1020 1230 (CN 54-201-004) (CN 54-201-005) (CN 54-201 006)	Staff Staff
MA 202 Analytic Geometry and Calculus III	4
Preu: MA 201 0730-0940 (CN 54-202-001) (CN 54-202-002) 1020-1230 (CN 54 202 003) (CN 54 202-004)	Staff Staff
MA 301 Applied Differential Equations I	3
Preg: MA 202 or equivalent Credit is not allowed in both MA 301 and MA 312 0800-0830 (*75.4-301-002) 1140-1310 (CN 54-301-003) (CN 54-301-004)	Staff Staff
MA 401 Applied Differential Equations II Preq: MA 301 or MA 312 0950-1120 (CN 54-401 001)	3 Staff
MA 405 Introduction to Linear Algebra and Matrices	3
Preg: One year of calculus 0800-0930 (CN 54-405-001) 1140-1310 (CN 54-405-002)	Staff Staff
MA 421 Introduction to Probability	3
Preq: One year of calculus 1140-1310 (CN 54-421-001)	Staff
MA 501 Advanced Math for Engineers and Scientists I Preq: MA 301 or equivalent	3
0950-1120 (CN 54-501-001)	Staff
MA 511 Advanced Calculus I Preq: MA 301 or MA 312 1140-1310 (CN 54-511-001)	3 Staff
MA 512 Advanced Calculus II Preg: MA 301 or MA 312	3
1140-1310 (CN 54-512-001)	Staff
MA 513 Introduction to Complex Variables Preg: MA 425 or MA 511 0800-0930 (CN 54-513 001)	3 Staff
MA 622 Linear Transformations and Matrix Theory Prog. MA 405	3
0950-1120 (CN 54-622-001)	Staff
MA 681 Special Topics in Real Analysis Hours arranged (CN 54-681-001)	1-6 Staff

MA 683 Special Topics in Algebra Hours arranged (CN 54-683-001)	1-6 Staff
MA 699 Research Hours arranged (CN 54-699-001)	Credits Arranged Staff
SECOND SESSION	
MA 102 Analytic Geometry and Calculus I Preq. MA 111 or equivalent completed in high school (redit in but MA 102 and MA 112 is not allowed. 0730-0490 (CN 54-102-001) 1020-1230 (CN 54-102-002) (CN 54-102-003)	4 Staff Staff
MA 111 Algebra and Trigonometry 0730-0940 (CN 54-111-001) (CN 54-111-002) (CN 54 111-003) 1020-1230 (CN 54-111-004) (CN 54-111-005)	4 Staff Staff
MA 112 Analytic Geometry and Calculus A Preu: MA 111 or equivalent completed in high school (redit in hoth MA 102 and MA 112 is not allowed. 0780-0940 (CN 54-112-001) 1020-1230 (CN 54-112-002)	4 Staff Staff
MA 113 Introduction to Calculus Prey: MA 111 or equivalent completed in high school Credit is not allowed in more than one of MA 102, MA 112, MA 113. MA 113 may not be substituted for MA 102 as a curricular requireme 0730-04940 (CN 54-113-001)	4 nt. Staff
MA 114 Introduction to Finite Mathematics with Applications Preq: MA 111 or equivalent completed in high school 0800-0930 (CN 54 114-001)	3 Staff
MA 115 Introduction to Contemporary Mathematics Credit in MA 115 is not allowed if student has credit for MA 102, MA 112, Credit towards graduation is not given for MA 115 in most curricula. 0800-0930 (CN 54-115-001)	3 MA 114, or MA 111. Staff
MA 116 Topics in Contemporary Mathematics Preq: MA 115 or equivalent completed in high school Credit in MA 116 is not allowed if student has credit for MA 102, MA 1140-1310 (CN 54-116 001)	3 . 112, or MA 114. Staff
MA 201 Analytic Geometry and Calculus II Preg: MA 102 0730-0940 (CN 54-201-001) (CN 54-201-002) 1020-1230 (CN 54-201-003) (CN 54-201-004) (CN 54-201-005)	4 Staff Staff
MA 202 Analytic Geometry and Calculus III Preq: MA 201 0730-0940 (CN 54-202-001) (CN 54-202-002) 1020-1230 (CN 54-202-003)	4 Staff Staff
MA 212 Analytic Geometry and Calculus B Preq: MA 112 1140-1310 (CN 54-212-001) (CN 54-212-002)	3 Staff
MA 301 Applied Differential Equations I Preat: MA 2020 encuivalent Preat: MA 2020 encuivalent 0800-0390 (CN 54-301-001) (SA 54-001-002) 140-1310 (CN 54-301-002) (CN 54-301-004)	3 Staff Staff

MA 401 Applied Differential Equations II Preq: MA 301 or MA 312 0950-1120 (CN 54-401-001)	3 Staff
MA 403 Introduction to Modern Algebra Pres: One year of calculus	3
0800-0930 (CN 54-403 001)	Staff
MA 405 Introduction to Linear Algebra and Matrices Preq: One year of calculus 1140-1310 (CN 54-405-001) (CN 54-405-002)	3 Staff
MA 433 History of Mathematics Preg: One year of calculus 0950-1120 (CN 54-433 001)	3 Staff
<sup>1</sup> MA 502 Advanced Mathematics for Engineers and Scientists II Preq: MA 301 or equivalent 0950-1120 (CN 54-502-001)	3 Staff
MA (OR,IE) 505 Mathematical Programming I (See operations research, page 62.)	3
MA 510 Selected Topics in Mathematics for Secondary Teachers	3
Preq: Graduate standing 0800-0930 (CN 54-510-001)	Staff
MA 512 Advanced Calculus II Preg: MA 301 or MA 312	3
1140-1310 (CN 54-512-001)	Staff
MA (ST) 541 Theory of Probability I Pres: MA 425 or MA 511	3
1340-1510 (CN 54-541-001)	Staff
MA 681 Special Topics in Real Analysis Hours arranged (CN 54-681-001)	1 6 Staff
MA 683 Special Topics in Algebra Hours arranged (CN 54-683-001)	1-6 Staff
MA 699 Research Hours arranged (CN 54-699-001)	Credits Arranged Staff
Mechanical and Aerospace Engineering	
FIRST SESSION	8
MAE 216 Elements of Mechanical Engineering Preq: ESM 205, PY 208, or PY 202 0800-0930 (CN 55-216-001)	3 Hart
MAE 301 Engineering Thermodynamics I Preq: MA 202, PY 208, or PY 202	3
0800-0930 (CN 55-301-001) 0950-1120 (CN 55-301-002)	Moore Hodgson
MAE 305 Mechanical Engineering Laboratory Coreq: MAE 301	1
1340-1750 TTh (CN 55-305-001)	Batton
MAE 315 Dynamics of Machines Preg: MAE 216, ESM 305	3
0950-1120 (CN 55-315 001)	Reiter

MAE 586 Project Work in Mechanical Engineering Hours arranged (CN 55-586-001)	1-6 Zorowski
MAE 699 Mechanical Engineering Research Preq: Graduate standing in mechanical engineering and consent of	Credits Arranged
Hours arranged (CN 55-699-001)	Zorowski
SECOND SESSION	
MAE 301 Engineering Thermodynamics I Preq: MA 202, PY 208, or PY 202 0950-1120 (CN 55-301-001)	3
	Knight
MAE 302 Engineering Thermodynamics II Preq: MAE 301 0800-0930 (CN 55-302-001)	3 Perkins
MAE 306 Mechanical Engineering Laboratory II	1
Preq: MAE 305 and EE 331 1340-1750 TTh (CN 55-306-001)	Batton
MAE 586 Project Work in Mechanical Engineering Hours arranged (CN 55-586-001)	1-6 Zorowski
MAE 699 Mechanical Engineering Research	Credits Arranged
Preq: Graduate standing in mechanical engineering and consent of a Hours arranged (CN 55-699-001)	adviser Zorowski
Meteorology	
FIRST SESSION	
MY 444 Meteorological Laboratory II Preq.: MY 443 1020-1230 (CN 56-444-001)	4 Watson
MY 521 The Upper Atmosphere	3
Preq: Consent of staff and MY 411 0800-0930 (CN 56-521-001)	Tsui
MY 593 Advanced Topics	1-6
Preq: Consent of staff Hours arranged (CN 56-593-001)	Staff
MY 699 Research	Credits Arranged
Preq: Graduate standing and consent of advisory committee Hours arranged (CN 56-699-001)	Staff
SECOND SESSION	
MY 593 Advanced Topics	1-6
Preq: Consent of staff Hours arranged (CN 56-593-001) Hours arranged (CN 56-593-002) [Surface Energy Budget(3)]	Staff Riordan
MY 699 Research	Credits Arranged
Preq: Graduate standing and consent of advisory committee Hours arranged (CN 56-699-001)	Staff

## Microbiology

FIRST SESSION	
MB 490 Special Studies in Microbiology Preq: Three courses in microbiology and consent of instructor	Credits Arranged
Hours arranged (CN 57-490-001)	Staff
MB 692 Special Problems in Microbiology Hours arranged (CN 57-692-001)	Credits Arranged Staff
MB 699 Microbiology Research Hours arranged (CN 57-699-001)	Credits Arranged Staff
SECOND SESSION	
MB 490 Special Studies in Microbiology Preq: Three courses in microbiology and consent of instructor	Credits Arranged
Hours arranged (CN 57-490 001)	Staff
MB 692 Special Problems in Microbiology Hours arranged (CN 57-692-001)	Credits Arranged Staff
MB 699 Microbiology Research Hours arranged (CN 57-699-001)	Credits Arranged Staff

## Music

Music 200 Understanding Music 0800-0930 (CN 69-200 001) 0950-1120 (CN 69-200-002)	3 Bliss Adcock
Music 210 A Survey of Music in America 0800-0930 (CN 69-210-001)	3 Adcock
Music 320 Music of the 20th Century 0950-1120 (CN 69-320 001)	3 Bliss
Music 495-I Special Topics in Music - Basic Keyboard Improvisation 0800-0980 (CN 69 495-001) 0950-1120 (CN 69-495-002)	3 Milne Milne
SECOND SESSION	
Music 200 Understanding Music 0950-1120 (CN 69-200-001)	3 Petters
Music 220 Music of the 19th Century 0800-0930 (CN 69-220-001)	3 Petters
Nuclear Engineering	
FIRST SESSION	
NE 491 Nuclear Engineering Topics I	1-4
Preq: Consent of instructor Hours arranged (CN 70-491-001)	Staff
SECOND SESSION	
NE 201 Applications of Nuclear Energy Prea: PY 208	3
0950-1120 (CN 70-201-001)	Stam

NE 491 Nuclear Engineering Topics I	1-4
Preq Consent of instructor Hours arranged (CN 70 491-001	Staff
Nutrition	
FIRST AND SECOND SESSIONS	
NTR 699 Research in Nutrition	Credits Arranged
Preq: Graduate standing Hours arranged (N 71 689 001)	Staff
	oran
Operations Research	
FIRST SESSION	
OR 501 Introduction to Operations Research Preq: MA 405, MA 121 1525-1815 MWF (CN 73-501-001)	3 Van Nunen
OR 591 Special Topics in Operations Research	1-3
Preq Consent of instructor Hours arranged (CN 73 591-001)	1-3 Staff
OR 691 Special Topics in Operations Research	3
Preq: OR 501, OR 505 IE 505, MA 505) Hours Arranged (CN 73 691 001)	Staff
OR 699 Project in Operations Research	1-3
Preq: Variable Hours arranged (CN 73-699-001)	Staff
SECOND SESSION	
OR (IE, MA)505 Mathematical Programming I Preq. MA 405	3
1525 1815 MWF (CN 73 505 001)	Gardner
OR 591 Special Topics in Operations Research Preq: Consent of instructor Hours arranged (CN 73 591 001)	1-3 Staff
	3
OR 691 Special Topics in Operations Research Preq: OR 501, OR 505, (IE 505, MA 505)	3
Hours arranged (CN 73-691-001)	Staff
OR 699 Project in Operations Research Preq: Variable	1-3
Hours arranged (CN 73-699-001)	Staff
Pest Management	
SECOND SESSION	
<ul> <li>PM 415 Principles of Pest Management Preq: ENT 312, PP 315, CS 414</li> </ul>	3
Hours arranged (CN 76-415-001)	Haning
July 10-28 Three week course	
*Refer to section on Special Three-Week Summer Session for Adult :	and Community College

\*Refer to section on Special Three-Week Summer Session for Adult and Community College Educators in the front of this booklet for registration instructions.

## Philosophy

FIRST SESSION	
PHI 201 Logic	3
0800-0930 (CN 74-201-001)	Metzger
0950-1120 (CN 74-201-002)	Metzger
PHI 205 Problems and Types of Philosophy	3
0800-0930 (CN 74-205-001)	Bredenberg
0950-1120 (CN 74-205-002)	Regan
PHI 306 Philosophy of Art	3
0950-1120 (CN 74-306-001)	Bredenberg
PHI 307 Morality and Human Happiness	3
0800-0930 (CN 74-307-001)	Regan
SECOND SESSION	
PHI 201 Logie	3
0800-0930 (CN 74-201-001)	Levin
0950-1120 (CN 74-201-002)	Levin
PHI 205 Problems and Types of Philosophy	3
0800-0930 (CN 74-205-001)	Carter
0950-1120 (CN 74-205-002)	VanDeVeer
1140-1310 (CN 74-205-003)	VanDeVeer
PHI 300 Early Western Philosophy	3
0950-1120 (CN 74-300-001)	Carter
PHI (ED) 304 Philosophy of Education	3
0800-0930 (CN 74 304-001)	Bryan
Physical Education	
FIRST SESSION	
PE 112 Beginning Swimming I	1
1300-1400 (CN 75-112-001)	Wall
1400-1500 (CN 75-112-002)	Wall
PE 221 Intermediate Swimming	1
1300-1400 (CN 75 221-001)	Berle
1400-1500 (CN 75-221-002)	Berle
PE 242 Badminton	1
1020-1120 (CN 75-242-001)	Leath
PE 243 Bowling 1420-1520 (CN 75-243-001) - (\$25.00 Bowling alley fee)	1 Leath
PE 245 Golf 0810-1010 (CN 75-245-002) 12201-120 (CN 75-245-002) 12201-1200 (CN 75-245-002) 12001-400 (CN 75-245-004) 1400-1500 (CN 75-245-005)	1 Cates Cates Briggson Briggson

PE 249 Tennis 1 @flo-1010 (VT 55 249-00)) 1020 1129 ((VT 55 249-002) 1200 1120 ((VT 55 249-003) 1200 1100 ((VT 55-249-003) 1200 1100 ((VT 55 249-003) 1200 1100 ((VT 55 249-005)	l Cheek Wall Leath Leath Cheek
PE 251 Target Archery	1
1020 1120 (N 75 251 001)	Cheek
1300-1400 (N 75-251 002)	Cheek
1400 1500 (N 75-251 003)	Cates
PE 265 Softball	1
1500-1600 (CN 75-265-001)	Wall
PE 269 Volleyball	1
1200-1300 (CN 75-269-001)	Berle
PE 280 Emergency Medical Care	2
0950 1120 (CN 75 280-001)	Briggson
SECOND SESSION	
PE 112 Beginning Swimming 1	1
1300-1400 (CN 75 112 001)	Scott
PE 221 Intermediate Swimming	1
1400-1500 (CN 75-221-001)	Scott
PE 242 Badminton	1
1020 1120 (CN 75 242 001)	Keating
PE 243 Bowling 1320 1420 (CN 75-243-001) \$25 00 Bowling alley fee)	1 Keating
PE 245 Golf	1
0800 1030 (°N 75-245-001)	Scott
1030 1130 (°N 75-245-002)	Scott
1300-1400 (°N 75-245-003)	Gwyn
1400-1500 (°N 75-245-003)	Gwyn
PE 249 Tennis I 1020-1120 (CN 75-248-001) 1200 1300 (CN 75 248-002) 1200-1100 (CN 75-248-003) 1200-1100 (CN 75-248-003) 100-1500 (CN 75-248-004)	1 Shannon Keating Shannon Shannon
PE 251 Target Archery	1
1020 1120 (CN 75 251 001)	Gwyn
1200 1300 (CN 75 251-002)	Shannon
PE 269 Volleyball	1
1200-1300 (CN 75-269-001)	Gwyn

# Physics

FIRST SESSION	
PY 205 General Physics Prog: MA 102 LR 0800-0930 (CN 77-205-001) LR 0950-1120 (CN 77-205-002) LB 1250-1500 MW (CN 77-205-101) LB 1510-1720 MW (CN 77-205-102) LB 1510-1720 MW (CN 77-205-103) LB 1510-1720 Th (CN 77-205-104)	4 Staff Staff
PY 208 General Physics Preg. PY 205 LR 0800-0930 (CN 77-208-001) LB 1250-1500 MW (CN 77-208-101) LB 1250-1500 Th (CN 77-208-102)	4 Staff Staff
PY 211 General Physics Preg. MA 111 or MA 116 1K 0800-0890 (CM 77-211-001) LR 0850-1120 (CM 77-211-002) LB 1250-1500 MW (CM 77-211-101) LB 1250-1500 MW (CM 77-211-102) LB 1250-1500 TH (CM 77-211-102)	4 Staff Staff
PY 212 General Physics Preg. PY 211 LR 0800-0930 (CN 77-212-001) LB 1250-1500 MW (CN 77-212-101) LB 1250-1500 Th (CN 77-212-102)	4 Staff
PY 221 College Physics Preq: MA 111 or MA 115 1020-1300 (CN 77-221-001)	5 Staff
PY 231 Physics for Non-Scientists For Humanities and Social Sciences students only 0950-1120 (CN 77-231-001)	3 Staff
PY 499 Special Problems in Physics	1-3
Preq: Consent of department Hours arranged (CN 77-499-001)	Staff
PY 599 Senior Research Preq: Senior honors program standing, except with special permission	3
Hours arranged (CN 77-599-001)	Staff
PY 699 Research Hours arranged (CN 77-699-001)	Credits Arranged Staff
SECOND SESSION	
PY 205 General Physics Preg: MA 102 LR 0800-9890 (CN 77-205-01) LB 1250-1500 WW (CN 77-205-101) LB 1510-1720 WW (CN 77 205-102) LB 1220-1500 UTH (CN 77 205-103)	4 Staff

LB 1510-1720 TTh (CN 77-205-104)

PY 208 General Physics Preq: PV 205 LR 980-00500 (CN 77.208-001) LR 9350-1120 (CN 77.208-002) LB 1250-1500 MW (CN 77.208-101) LB 1510-1720 MW (CN 77.208-102) LB 1250-1500 Th (CN 77.208-103)	4 Staff Staff
LB 1510-1720 TTh (CN 77-208-104)	
PY 211 General Physics Preq: MA 111 or MA 115 LR 0850-1120 (CN 77-211-001) LB 1250-1500 MW (CN 77-211-101) LB 1250-1500 Th (CN 77-211-102)	4 Staff
PY 212 General Physics	4
Preq: PY 211 ER 9800-9803 (CN 77-212-001) ER 9850-1203 (CN 77-212-001) EB 1250-1500 MW (CN 77-212-101) EB 1510-1720 MW (CN 77-212-102) EB 1510-1720 MW (CN 77-212-102) EB 1510-1720 MW (CN 77-212-103) EB 1510-1720 TH (CN 77-212-103)	Staff Staff
PY 221 College Physics	5
Preq: MA 111 or MA 115 1020-1300 (CN 77-221-001)	Staff
	1-3
PY 499 Special Problems in Physics Preq: Consent of department Hours arranged (CN 77-499-001)	1-3 Staff
PY 599 Senior Research	3
Preq: Senior honors program standing, except with special permission Hours arranged (CN 77-599-001)	Staff
PY 699 Research Hours arranged (CN 77-699-001)	Credits Arranged Staff
Plant Pathology	
FIRST SESSION	
PP 595 Special Problems in Plant Pathology Freq: Consent of instructor	1-6
Hours arranged (CN 79-595-001)	Staff
PP 699 Research in Plant Pathology	Credits Arranged
Preq: Graduate standing and consent of instructor Hours arranged (CN 79-699-001)	Staff
SECOND SESSION	
PM 415 Principles of Pest Management (See page 62)	
PP 503 Identification of Plant Pathogenic Fungi	3
Prec: Mycology or one advanced course in plant pathology LR 0730-0930 TTh (CN 79-503-001) LB 1020-1230 and 1340-1750 TTh (CN 79-503-101)	Grand
PP 595 Special Problems in Plant Pathology	1-6
Preq: Consent of instructor Hours arranged (CN 79-595-001)	Staff

PP 699 Research in Plant Pathology Preq: Graduate standing and consent of instructor	Credits Arranged
Hours arranged (CN 79-699-001)	Staff
Political Science	
FIRST SESSION	
PS 201 The American Governmental System 0800-0930 (CN 80-201-001) 1140-1310 (CN 80-201-002)	3 Mastro Hurwitz
PS 206 Local Governmental Systems 0950-1120 (CN 80-206-001)	3 McClain
PS 344 Soviet Politics 0950-1120 (CN 80-344-001)	3 Mastro
PS 402 Campaigns & Elections in the American Political System Prec: PS 201 0950 1120 (CN 80-402-001)	3 Hurwitz
PS 498 Special Topics in Political Science	3
Preq: Six hours of political science Hours arranged (CN 80-498-001)	Staff
PS 511 Public Administration	3
Preq: PS 271 or consent of instructor 0800-0930 (CN 80-511 001)	McClain
PS 571 Scope and Methods of Political Science Prea: PS 201 or consent of instructor	3
1140-1310 (CN 80-571-001)	Rassel
PS 616E Seminar in Program Evaluation Preq: PS 516 or consert of instructor	3
1900-2200 TTh (CN 80-616-001)	Rassel
PS 621E Collective Negotiations in the Public Service Preq: PS 511 or consent of instructor	3
1900 2200 MW (CN 80 621-001)	Caldwell
PS 691 Internship in Public Affairs Preq: Minimum of 9 hours graduate work	13
Hours arranged (CN 80-691-001)	Staff
PS 696 Seminar in Politics Preq: Advanced graduate standing	2.4
Hours arranged (CN 80 596-001)	Staff
PS 699 Research in Politics	3
Preq: Graduate standing Hours arranged (CN 80-699-001)	Staff
SECOND SESSION	
PS 201 The American Governmental System 0950-1120 (CN 80-201-001)	3
0000 1100 101 00-201-0011	Staff

PS 206 Local Governmental Systems 1140-1310 (CN 80-206-001)	3 Staff
PS 236 Introduction to Global Politics 0800-0930 (CN 80-236-001)	3 Soroos
PS 331 U. S. Foreign Policy 0950-1120 (CN 80-331-001)	3 Staff
PS 406 Politics and Policies of American State Governments 0800-0930 (CN 80-406-001)	3 Williams
PS 496 Governmental Internship Hours arranged (CN 80-496-001)	3 Staff
PS 498 Special Topics in Political Science Preq: Six hours of political science Hours arranged (CN 80-498-001)	3 Staff
PS 516 Public Policy Analysis Preq: Graduate standing, advanced undergraduate standing and 1140-1310 (CN 80-516-001)	3 consent of instructor Williams
PS 611E Public Personnel Administration Preq: PS 511 or consent of instructor 1900-2200 TTh (CN 80-611-001)	3 Caldwell
PS 612 The Budgetary Process Preq: Consent of instructor and at least 9 hours in the social scient American government	
0850-1120 (CN 80-612-001) <b>PS 614 Seminar in Management Systems</b> Preq: PS 571 or equivalent and have completed at least one sem work in MPA program or equivalent 1900-2200 MW (CN 80-614-001)	Swiss 3 ester full-time graduate Swiss
PS 691 Internship in Public Affairs Preq: Minimum of 9 hours graduate work Hours arranged (CN 80-691-001)	1-3 Staff
PS 696 Seminar in Politics Preq: Advanced graduate standing Hours arranged (CN 80-696-001)	2-4 Staff
PS 699 Research in Politics	3
Preq: Graduate standing Hours arranged (CN 80-699-001)	Staff
Poultry Science	
FIRST SESSION	
PO 495 Special Problems in Poultry Preq: Junior standing and consent of instructor Hours arranged (CN 81-495-001)	1-6 Prince
PO 698 Special Problems in Poultry Science Preq: Graduate standing Hours arranged (CN 81-698-001)	1-6 Prince
PO 699 Poultry Research Preq: Graduate standing Hours arranged (CN 81-699-001)	Credits Arranged Prince

## SECOND SESSION

PO 495 Special Problems in Poultry Science Preg: Junior standing and consent of instructor	1-6
Hours arranged (CN 81-495-001)	Prince
PO 698 Special Problems in Poultry Science Preg: Graduate standing	16
Hours arranged (CN 81-698-001)	Prince
PO 699 Poultry Research	Credits Arranged
Preq: Graduate standing Hours arranged (CN 81-699-001)	Prince

# **Product Design**

## FIRST SESSION

PD 595 Independent Study	*1-3
Preg: Graduate standing and approval of program director at	nd advisory committee required
Hours arranged (CN 82-595-001)	Foote
Students may not preregister for this course. Course may	be added on Registration Day,
May 23, 1978.	

## SECOND SESSION

PD 595 Independent Study 11.3 Preq: Graduate standing and approval of program director and advisory committee require Hours arranged (CN 82-595 001) Foote

\*Note: Credits six maximum in any program of work. Students may not preregister for this course. Course may be added on Registration Day, July 5, 1978.

# Psychology

FIRST SESSION

PSY 200 Introduction to Psychology	3 Parker
0800-0930 (CN 83-200-001) 0950-1120 (CN 83-200-002) 1140-1310 (CN 83-200-003)	Cunningham Cunningham
PSY 210 Psychological Analysis Applied to Current Problems Preq: PSY 200 0800-0930 (CN 83-210-001)	3 Smith
PSY 300 Perception Preq: PSY 200, introductory biological sciences, physics or chemistry 1520-1650 (CN 83-300-001)	3 y recommended Mershon
PSY 304 Educational Psychology 0800-0930 (CN 83-304-001)	3 Johnson
PSY 370 Psychology of Personality and Adjustment Preq: PSY 200 1140-1310 (CN 83-370-001)	3 Green
PSY 411 Social Psychology Preq: PSY 200 0950-1120 (CN 83-411-001)	Staff
objecting (circle til cor)	

PSY 492 Seminar in Psychology Proq. PSY 491 Only for majors in PSY, PEO, or HRD	3 Staff
Hours arranged (CN 83-492-001)	
PSY 493 Special Topics in Psychology Preq: Consent of instructor Hours arranged (CN 83-498-001)	1-6 Staff
PSY 493 Special Topics in Psychology-Human Sexuality	3
Preq. Consent of instructor 1950-1120 (CN 83-193-002)	Green
PSY 504 Advanced Educational Psychology	3
Preq: Six hours in psychology 0800-1010 (CN 83-504-001)	Johnson
PSY 530 Abnormal Psychology Preg. PSY 200 and PSY 302	3
0800-0930 (CN 83-530-001)	Corter
•PSY 576 Developmental Psychology Preq. Nine hours in psychology, including PSY 475 or PSY 476 1600 1900 M-W (CN 83-576-001)	3
May 15-June 28 Six week course	Corter
<ul> <li>Do Not Proceeding for this course. Refer to section on Early Summe in the front of this booklet for registration instructions.</li> </ul>	Pr Sessions for Teachers
PSY 599 Research Problems in Psychology	Credits Arranged
Preq Consent of instructor Hours arranged (CN 83-599-001)	Staff
PSY 691 Special Topics in Psychology: Survey Research Preq. Graduate standing and consent of instructor 1600 1900 TTh CN \$3-691 001)	3 Klein
PSY 693 Psychological Clinic Practicum	1-12
Preq. Nine hours in psychology Hours arranged (CN 83 693-001)	Corter
PSY 699 Thesis and Dissertation Research	Credits Arranged
Preq: Graduate standing and consent of instructor Hours arranged (CN 83-699-001)	Staff
SECOND SESSION	
PSY 200 Introduction to Psychology 0800-0930 (CN 83-200-001)	3 Staff
PSY 304 Educational Psychology 0800-0930 (CN 83-304-001)	3 Miller
PSY 310 Learning and Motivation	3
Preq: PSY 200 0800 0930 (CN 83-310-001)	Staff
PSY 320 Cognitive Processes	3
Preq: PSY 200 0950-1120 (CN 83 320-001)	Chmielewski
PSY 475 Child Psychology	3
Preq: PSY 200 or PSY 304 0950-1120 (CN 83-475 001)	Rawls
and the former and	144.010

PSY 492 Seminar in Psychology Preq: PSY 491. Only for majors in PSY, PEO, or HRD	3
Hours arranged (CN 83-492-001)	Staff
PSY 493 Special Topics in Psychology-Psychology and the Law Preq: PSY 200 1140-1310 (CN 83-493-001)	3 Frederick
PSY 504 Advanced Educational Psychology	3
Preq: Six hours in psychology	
0800-0930 (CN 83 504-001)	Chmielewski
PSY 532 Psychological Aspects of Exceptionality	3
Preq: Consent of instructor 1140-1310 (CN 83-532-001)	Rawls
PSY 535 Tests and Measurements	3
Preq: Six hours in psychology 0800-0930 (CN 83-535-001)	Westbrook
0950-1120 (CN 83-535-002)	Westbrook
PSY 565 Organizational Psychology	8
Preq: Nine hours of psychology 1600-1730 (CN 83-565-001)	Miller
PSY 599 Research Problems in Psychology	Credits Arranged
Preq: Consent of instructor Hours arranged (CN 83-599-001)	Staff
PSY 693 Psychological Clinic Practicum	1-12
Preq: Nine hours in psychology Hours arranged (CN 83-693-001)	Rawls
PSY 699 Thesis and Dissertation Research	Credits Arranged
Preq: Graduate standing and consent of instructor	2 - 10 10 10 - 10 - 10 - 10 - 10 - 10 -
Hours arranged (CN 83-699-001)	Staff
<b>Recreation Resources Administration</b>	
FIRST SESSION	
RRA 152 Introduction to Recreation	3
0800-0930 (CN 85-152-001)	Warren
RRA 215 Maintenance and Operation I Preq: RRA 152	3
0950-1120 (CN 85-215-001)	Staff
RRA 475 Recreation and Park Internship Preg: Senior status, RRA 359	9
Hours arranged (CN 85-475-001)	McKnelly
Hours arranged (CN 85-475-002) Hours arranged (CN 85-475-003)	Staff Staff
RRA 591 Recreation Resources Problems	Credits Arranged
Preq: Advanced undergraduate or graduate status Hours arranged (CN 85-591-001)	Staff
RRA 692 Advanced Problems in Recreation	Credits Arranged
Preq: Twelve hours RRA Hours arranged (CN 85-692-001)	Staff
the second second second	Starr

RRA 699 Research in Recreation Preq: Twelve hours RRA Hours arranged (CN 85-699-001)	Credits Arranged Staff
SECOND SESSION	
RRA 591 Recreation Resources Problems	Credits Arranged
Preq: Advanced undergraduate or graduate status Hours arranged (CN 85 591-001)	Staff
RRA 692 Advanced Problems in Recreation Preq: Twelve hours RRA Hours arranged (CN 85 692 001)	Credits Arranged Staff
RRA 699 Research in Recreation Preq: Twelve hours RRA Hours arranged (CN 85-699 001)	Credits Arranged Staff
Religion	
FIRST SESSION	
REL 300 Introduction to Religion 0800-0930 (CN 87-300-001) 0950 1120 (CN 87 300 002)	3 Highfill Tolbert
REL 312 Christian Origins 0800-0930 (CN 87-312 001)	3 Tolbert
SECOND SESSION	
REL 300 Introduction to Religion 0800-0930 (CN 87-300-001) 0950 1120 (CN 87-300-002)	3 VanderKam VanderKam
Social Work	
FIRST SESSION	
SW 205 Social Welfare Policies and Issues Preq: SW 203 0950 1120 (CN 86-205 001)	3 Russell
SW 307 Social Welfare Programs and Delivery Systems	3
Preq: SW 205 1140-1310 (CN 86-307-001)	Mackie
SW 406 Field Work I	6
Preq: SW 405 Hours arranged (CN 86-406-001)	Mackie
SW 407 Field Work II	6
Preq: SW 406 Hours arranged (CN 86-407-001)	Mackie
Sociology	
FIRST SESSION	
SOC 202 Principles of Sociology (730-0800 (CN 92-202-001) 0800-0830 (CN 92-202-002) 0850-1120 (CN 92-202-003) 1140 1310 (CN 92-202-004)	3 Dawson Schulman Thomson Staff

SOC 203 Current Social Problems 0950-1120 (CN 92-203-001)	3 Zingraff
SOC 204 Contemporary Family Life 0800-0303 (CN 92-204-001) 0800-0393 (CN 92-204-002) 0850-1120 (CN 92-204-002) 1140-1310 (CN 92-204-003) 1140-1310 (CN 92-204-004)	3 Mustian Staff Mustian Mercer
SOC 241 Rural Society—U.S.A. 1140-1310 (CN 92-241-001)	3 Schulman
SOC 201 Human Behavior Preg: SOC 202 or PSY 200 0800-0930 (CN 92-301-001) 0850-1120 (CN 92-301-001) 1140-1310 (CN 92-301-002) 1140-1310 (CN 92-301-003)	3 Staff Sawhney Sawhney
SOC 306 Criminology Preq: Three hours of sociology 1140-1310 (CN 92-306-001)	3 Zingraff
SOC 311 Community Relationships Preq: Three hours of sociology 0800-0930 (CN 92-311-001)	3 Thomson
SOC 416 Research Methods Preq: Senior standing, ST 311 or consent of instructor 0950-1120 (CN 92-416-001)	3 Dawson
SOC 498 Special Topics in Sociology Preq: Six hours of sociology above 200 level Hours arranged (CN 92-498-001)	1-6 Мауо
SOC 502 Society, Culture and Personality Preq: SOC 202 or equivalent 0800-0930 (CN 92-502-001)	3 Uzzeli
SOC 503 Contemporary Sociology Preq: Graduate standing 1140-1310 (CN 92-503-001)	3 Uzzell
SOC 632 Sociology of the Family Preq: Graduate standing 0950-1120 (CN 92-632-001)	3 Mercer
SOC 699 Research in Sociology Preq: Consent of chairman of graduate study committee Hours arranged (CN 92-699-001)	Credits Arranged Mayo
SECOND SESSION	
SOC 202 Principles of Sociology 0730-090 (CN 92-202-001) 0800-0930 (CN 92-202-002) 0850-1120 (CN 92-202-002) 0850-1120 (CN 92-202-003) 1140-1310 (CN 92-202-004)	3 Staff Marsh McFarlane Staff
SOC 203 Current Social Problems 0950-1120 (CN 92-203-001)	3 Staff

SOC 204 Contemporary Family Life 0800-0830 (CN 52:204-001) 0850-1120 (CN 52:204-002) 0850-1120 (CN 52:204-003) 1140-1310 (CN 92:204-003)	3 Staff Staff Troost Troost	
SOC301 Human Behavior Preq: SOC 202 or PSY 200 0600-0303 (CN 92:301-001) 0660-1120 (CN 92:301-002) 1140-1310 (CN 92:301-002)	3 Hyman Hyman McFarlane	
SOC 305 Race Relations Preq: Three hours of sociology 0950-1120 (CN 92-305-001)	3 Della Fave	
SOC 306 Criminology Pres: Three hours of sociology 0800-0930 (CN 92-306-001) 0550-1120 (CN 92-306-002)	3 Austin Austin	
SOC 425 Juvenile Delinquency Preq: SOC 202, SOC 301 desirable 0800-0930 (CN 92-425-001)	3 Deila Fave	
SOC 498 Special Topics in Sociology Preq: Six hours of sociology above 200 level Hours arranged (CN 92-498-001)	1-6 Mayo	
SOC 501 Leadership Preq: SOC 202 or equivalent 0800-0930 (CN 92-501-001)	3 Brisson	
SOC 513 Community Organization and Development Preq: SOC 202 or equivalent 0950-1120 (CN 92-513-001)	3 Brisson	
SOC 541 Social Systems and Planned Change Preq: Three hours of sociology 1140-1310 (CN 92-541-001)	3 Marsh	
*SOC 591J Special Topics in Sociology: Change Agents in Social Preq: Consent of instructor	Action 1-6	
1020-1300 (CN 92-591-001) July 10-28—Three week course	Voland/Burton	
*Refer to section on Special Three-Week Summer Session for Adult and Community College Educators in the front of this booklet for registration instructions.		
SOC 699 Research in Sociology Preq: Consent of chairman of graduate study committee Hours arranged (CN 92-699-001)	Credits Arranged Mayo	
Soil Science		
FIRST SESSION		
SSC 590 Special Problems Preq: SSC 200 Hours arranged (CN 93-590-001)	Credits Arranged Staff	
SSC 699 Research	Credits Arranged	
Preq: Graduate standing in soil science Hours arranged (CN 93-699-001)	Staff	

SECOND SESSION	
SSC 590 Special Problems Prea: SSC 200	Credits Arranged
Hours arranged (CN 93-590-001)	Staff
SSC 699 Research	Credits Arranged
Preq: Graduate standing in soil science Hours arranged (CN 93-699-001)	Staff
Speech-Communication	
FIRST SESSION	
SP 110 Public Speaking	3
0800-0930 (CN 37-110-001) 0950-1120 (CN 37-110-002)	Staff Staff
0950-1120 (CN 37-110-002) 0950-1120 (CN 37-110-003)	Staff
SP 112 Basic Principles of Interpersonal Communication	3
0800-0930 (CN 37-112-001)	Staff
1140 1310 (CN 37-112-002)	Staff
SP 205 Speech Improvement	3
0950-1120 (CN 37-205-001)	Staff
1140-1310 (CN 37 205 002)	- China
SP 498A Theatre Arts Clinic Hours arranged (CN 37-498-001)	3 Russell
SP 498B Theatre Arts Clinic Hours arranged (CN 37-498-002)	3 Martin
SECOND SESSION	
SP 110 Public Speaking	3
0800-0930 (CN 37-110-001)	Staff
0950-1120 (CN 37-110-002) 0950-1120 (CN 37-110-003)	Staff
1140-1310 (CN 37-110-004)	Staff
1140-1310 (CN 37-110-005)	Staff
SP 112 Basic Principles of Interpersonal Communication	3
0800-0930 (CN 37-112-001)	Attaway
0950-1120 (CN 37-112-002)	Attaway
SP 498A Theatre Arts Clinic	3 Russeil
Hours arranged (CN 37-498-001)	Russen
SP 498B Theatre Arts Clinic Hours arranged (CN 37-498-002)	3 Martin
Statistics	
FIRST SESSION	
ST 311 Introduction to Statistics	3
0800-0930 (CN 94-311-001)	Staff
1140-1310 (CN 94-311-002)	Staff

ST (EB) 350 Economics and Business Statistics

(See EB 350, page 37)

ST 361 Introduction to Statistics for Engineers Preo: College Algebra	3
0800-0930 (ČN 94-361-001)	Staff
ST 371 Introduction to Probability and Distribution Theory Preq: MA 201 0950-1120 (CN 94-371-001)	2 Staff
ST 511S Experimental Statistics I Preq: ST 311 or graduate standing	3
1140-1310 (CN 94-511-001)	Staff
ST 591 Special Problems Hours arranged (CN 94-591-001)	1-3 Staff
ST 691 Advanced Special Problems Preq: ST 502 or equivalent, ST 552 Hours arranged (CN 94-691-001)	1-3 Staff
ST 699 Research Hours arranged (CN 94-699-001)	Credits arranged Staff
SECOND SESSION	
ST 372 Introduction to Statistical Inference and Regression Preq: ST 371	2
0950-1120 (CN 94-372-001)	Staff
ST 512S Experimental Statistics II Preq: ST 511 or equivalent 0800-0920 (CN 94-512-001)	3 Staff
ST (MA) 541 Theory of Probability I	3
Preg: MA 425 or MA 511 (See MA (ST) 541, page 59)	Staff
ST 591 Special Problems Hours arranged (CN 94-591-001)	1-3 Staff
ST 691 Advanced Special Problems Preq: ST 502 or equivalent, ST 552	1-3
Hours arranged (CN 94-691-001)	Staff
ST 699 Research Hours arranged (CN 94-699-001)	Credits Arranged Staff
Textile Chemistry	
FIRST SESSION	
T 203 Introduction to Polymer Chemistry Preg. CH 101 0950-1120 (CN 95-203-001)	3 Bryan
	1-6
TC 490 Special Topics in Textile Chemistry Hours arranged (CN 96-490-001)	Staff
TC 699 Textile Research for Textile Chemistry Hours arranged (CN 96-699-001)	Credits Arranged McGregor
SECOND SESSION	
T 301 Technology of Dyeing and Finishing Prev: T 203 LR 0800-0930 (CN 95-301-001) LB 1340-1620 TTh (CN 95-301-101)	4 Rucker

TC 490 Special Topics in Textile Chemistry Hours arranged (CN 96-490-001)	1-6 Staff
T 493 Industrial Internship in Textiles	3
Preq: Junior or senior in good standing Hours arranged (CN 95-493-001)	Klibbe
TC 699 Textile Research for Textile Chemistry Hours arranged (CN 96-699-001)	Credits Arranged McGregor
Textile Materials & Management	
FIRST SESSION	
T 220 Yarn Forming Systems Preg: T 101 or equivalent	4
LR 0800-0930 (CN 95-220-001) LB 1340-1620 TTh (CN 95-220-101)	Staff
TX 330 Textile Measurements and Quality Control	4
Preq: T 250, ST 361 LR 0950-1120 (CN 97-330-001) LB 1340-1620 MW (CN 97-330-101)	Massey
TX 350 Woven Fabric Structures	5
Preu: T 250,T 211 LR 1020-1230 (CN 97-350-001) LB 1340-1620 TTh (CN 97-350-101)	Schwartz
TX 380 Management and Control of Textile Systems	3
Preq: EB 201, T 250 0800-0930 (CN 97-380-001)	Staff
TX 490 Development Project in Textile Technology Preg: Senior standing and consent of instructor	23
Hours arranged (CN 97-490-001)	Staff
TX 590 Special Projects in Textiles Preg: Senior or graduate standing, consent of instructor	23
Hours arranged (CN 97-590-001)	Staff
TX 680 Special Projects in Textile Management Preg: TX (EB) 585	13
Hours arranged (CN 97-680-001)	Cooper
TX 699 Textile Research Hours arranged (CN 97-699-001)	Credits Arranged Staff
SECOND SESSION	
T 211 Introduction to Fiber Science Preg: MA 112 or MA 102	3
LR 0800-0900 (CN 95-211-001) LB 1340-1620 TTh (CN 95-211-101)	Hutchison
T 250 Fabric Forming Systems Preq: MA 111 or equivalent	3
0950-1120 (CN 95-250-001)	Rhodes
TX 320 Mechanics of Spun Yarn Manufacturing Systems Preq: T 220	4
Coreq: T 211	
LR 0950-1120 (CN 97-320-001) LB 1340-1620 MW (CN 97-320-101)	Pardue

TX 340 Principles of Knitted Fabric Structures	5
Preq: T 250, T 211 LR 1020-1230 (CN 97-340-001) LB 1340-1620 MW (CN 97-340-101)	Middleton
TX 490 Development Project in Textile Technology Preq: Senior standing and consent of instructor	2-3
Hours arranged (CN 97-490-001)	Staff
T 493 Industrial Internship in Textiles Preq: Junior or senior in good standing	3
Hours arranged (CN 95-493-001)	Klibbe
TX 590 Special Projects in Textiles Preq: Senior or graduate standing, consent of instructor Hours arranged (CN 97-590-001)	2-3 Staff
TX 699 Textile Research Hours arranged (CN 97-699-001)	Credits Arranged Staff
University Studies	- Court
FIRST SESSION	
UNI 301 Science and Civilization Pres: Sophomore standing	3
0800-0930 (CN 89-301-001)	Stalnaker
UNI 324 Alternative Futures 0950-1120 (CN 89-324-001)	3 Hoffman
UNI 325 Bio-Medical Ethics: An Interdisciplinary Inquiry 0950-1120 (CN 89-325-001)	3 Stalnaker
UNI 402 Peace and War in the Nuclear Age 0800-0930 (CN 89-402-001)	3 Hoffman
SECOND SESSION	
UNI 301 Science and Civilization	3
Preq: Sophomore standing 0800-0930 (CN 89-301-001)	Lambert
UNI 302 Contemporary Science and Human Values	3
Preq: Sophomore standing 0950-1120 (CN 89-302-001)	Lambert
UNI 303 Man and His Environment	3
Preq: Sophomore standing 0800-0930 (CN 89-303-001)	Huisingh
UNI 495G Special Topics in University Studies— Lifelong Learning and the Process of Aging 0950-1120 (CN 89-495-001)	3 Huisingh
Veterinary Science	munigu
FIRST SESSION	
VET 490 Special Topics in Veterinary Science	Credits Arranged
Preq: Junior standing Hours arranged (CN 91-490-001)	Staff
VET 590 Advanced Special Topics in Veterinary Science Hours arranged (CN 91-590-001)	Credits Arranged Staff

SECOND SESSION	
VET 490 Special Topics in Veterinary Science Preq: Junior standing Hours arranged (CN 91-490-001)	Credits Arranged Staff
VET 590 Advanced Special Topics in Veterinary Science Hours arranged (CN 91-590-001)	Credits Arranged Staff
Wood and Paper Science	
FIRST SESSION	
WPS 205 Wood Products Practicum WST Summer Practicum Preq: WPS 201 or WPS 202 0800-1700 (CN 90-205-001)	5 Carter, Gilmore
WPS 210 Forest Products Internship	1
Preq: Completion of summer practicum 0800-1700 (CN 90-210-001)	Carter
WPS 491 Senior Problems in Wood & Paper Science	Credits Arranged
Preq: Consent of department Hours arranged (CN 90-491-001)	Staff
WPS 591 Wood and Paper Science Problems Preq: Senior or graduate standing	Credits Arranged
Hours arranged (CN 90 591-001)	Staff
WPS 693 Advanced Wood Technology Problems	Credits Arranged
Preq: Graduate standing Hours arranged (CN 90-693-001)	Staff
WPS 699 Problems and Research Preg: Graduate standing	Credits Arranged
Hours arranged (CN 90-699-001)	Staff
SECOND SESSION	
WPS 491 Senior Problems in Wood & Paper Science	Credits Arranged
Preq: Consent of department Hours arranged (CN 90-491-001)	Staff
WPS 591 Wood and Paper Science Problems	Credits Arranged
Preq: Senior or graduate standing Hours arranged (CN 90-591-001)	Staff
WPS 693 Advanced Wood Technology Problems	Credits Arranged
Preq: Graduate standing Hours arranged (CN 90-693-001)	Staff
WPS 699 Problems and Research	Credits Arranged
Preq: Graduate standing Hours arranged (CN 90-699-001)	Staff
Zoology	

# Zoology FIRST SESSION

# BS 100 General Biology (See biological sciences, page 29)

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ZO 201 General Zoology Preq: BS 100 or BS 105	4
LR 0800-0930 (CN 99-201-001)	Grant
LB 1340-1750 MW (CN 99 201-101)	Staff
LB 1340-1750 TTh (CN 99-201-102)	Staff
ZO(BO) 360 Introduction to Ecology Preq: A 200-level biology course	4
LR 0800-0930 (CN 99-360-001)	Staff
LB 1340-1750 MW (CN 99-360-101)	Staff
LB 1340-1750 TTh (CN 99 360-102)	Staff
ZO 590 Special Studies Preq: Twelve hours in zoology, consent of instructor	Credits Arranged
Hours arranged (CN 99-590-001)	Vandenbergh
ZO 699 Research in Zoology Preu: Twelve hours in zoology, consent of instructor	Credits Arranged
Hours arranged (CN 99-699-001)	Vandenbergh
SECOND SESSION	
ZO 221 Conservation of Natural Resources	3
1140-1310 (CN 99-221 001)	Staff
ZO 353 Wildlife Management Preu: BS 100	3
0800-0930 (CN 99-353-001)	Staff
ZO 421 Vertebrate Physiology Preq: CH 223, PY 212, ZO 201 or ZO 203	3
0800-0930 (CN 99-421-001)	Staff
ZO 590 Special Studies	Credits Arranged
Preq: Twelve hours in zoology, consent of instructor Hours arranged (CN 99-590-001)	Vandenbergh
ZO 699 Research in Zoology	Credits Arranged
Preq: Twelve hours in zoology, consent of instructor	
Hours arranged (CN 99-699-001)	Vandenbergh

# UNIVERSITY CRAFT CENTER COURSES

# REGISTRATION PROCEDURES

The following noncredit, special interest courses are being offered through the cooperation of the University Craft Center, Basement Frank Thompson Building, REGISTRATION WILL TAKE PLACE AT THE CRAFT CENTER ON THURS-DAY, MAY 18, 1978, 12:30-7:30 P.M. No registration by mail or phone will be accented.

All registrations and cancellations are to be made at the craft center. Notification of cancellation must be received 48 hours before the course begins in order to get refund. Minimum age for registrants is 16 years.

# COURSE OFFERINGS AND CLASS SCHEDULE

## DESIGN ON FABRIC

Course Description: Use of wax resist, direct painting with dyes, block printing and tie dyeing fabrics. Basic dyes and material included in fee. Fee includes the use of the workshop throughout the summer.

Summer Schedule: Each Monday and Wednesday evening for 4 weeks, 7:00-10:00 p.m. beginning July 10.

Fee: \$50.00

# SCREEN-PROCESS PRINTING ON FABRIC

Course Description: Silk Screen techniques including photographic film and cut stencils used to print fabrics. Basic supplies included in fee. Fee includes the use of the workshop throughout the summer.

Summer Schedule: Each Monday and Wednesday evening for 4 weeks, 3:00-6:00 p.m., beginning May 29.

Fee: \$50.00

## POTTERY I

Course Description: Construction of coiled, slab and pinched pots as well as use of the potter's wheel. Lectures will discuss nature of clay and various materials used by the potter as related to function and form. Basic supplies are included in the fee. Fee includes the use of the workshop throughout the summer.

Summer Schedule: Section (a): Each Monday and Wednesday evening for 4 weeks, 7:00-10:00 p.m., beginning May 29. Section (b): Each Monday and Wednesday afternoon for 4 weeks, 2:00-500 p.m., beginning May 29. Section (c): Each Monday and Wednesday evening for 4 weeks, 7:00-10:00 p.m., beginning July 10. Section (d): Each Monday and Wednesday afternoon for 4 weeks, 2:00-500 p.m., beginning July 10.

Fee: \$50.00

## WEAVING I

Course Description: Beginners learn to dress a four harness floor loom, make a sampler using various techniques, and a project of the student's choice. Beginning sampler materials only included in the fee. Six to eight hours a week between classes is necessary to complete projects.

Summer Schedule: Each Monday and Wednesday evening for 6 weeks, 7:00-10:00 p.m., beginning May 29.

Fee: \$50.00

## WEAVING II

Course Description: Designed to follow Weaving I. Must be able to dress floor loom and know hasic weaving techniques. More advanced and varied projects are planned in this class. Six hours a week between classes is necessay to complete projects.

Summer Schedule: Tuesday evenings for 5 weeks, 7:00-10:00 p.m., beginning July 11.

Fee: \$40.00

## BLACK AND WHITE PHOTOGRAPHIC PROCESSING I

Course Description: Basic developing techniques used for B/W film, contact printing and enlargements. Fee includes the use of the darkroom through the summer.

Summer Schedule: Section (a): Each Monday and Wednesday evening for 2 weeks, 7:00-10:00 p.m., beginning May 29.

Section (b): Each Monday and Wednesday afternoon for 2 weeks, 2:00-5:00 p.m., beginning May 29. Section (c): Each Monday and Wednesday evening for 2

Section (c): Each Monday and Wednesday evening for 2 weeks, 7:00-10:00 p.m., beginning July 10.

Section (d): Each Monday and Wednesday afternoon for 2 weeks, 2:00-5:00 p.m., beginning July 10.

Other sections may be added as these class sections fill. Fee: \$45.00

# VISUAL COMPOSITION

Course Description: Inexperienced photographers will be introduced to the basic skills needed for composing effective and pleasing photographs. Slides, photographs, and paintings will be used to illustrate concepts. Elements of criticism will be discussed.

Summer Schedule: Section (a): Each Tuesday and Thursday for 3 weeks, 7:00-9:00 p.m., beginning May 30.

Section (b): Each Tuesday and Thursday evening for 3 weeks, 7:00-9:00 p.m., beginning July 11.

Fee: \$40.00

## LAPIDARY

Course Description: Stone cutting, polishing, and faceting semi-precious gem stones and minerals. This is a small class needing one machine per student. Regular attendance is stressed to benefit advantages offered. Additional lab time between classes is necessary. Summer Schedule: Section (a): Monday through Thursday evenings for 2 weeks, 7:00-10:00 p.m., beginning May 29. Section (b): Monday through Thursday evenings for 2 weeks, 7:00-10:00 p.m., beginning July 10.

Fee: \$30.00

## HAMMOCK MAKING

Course Description: Participants in this class will complete a Pawley's Island-type hammock. All materials will be provided in the class fee.

Summer Schedule: Section (a): Tuesday, Wednesday, and Thursday evenings, 7:00-10:00 p.m., beginning May 30. Section (b): Monday, Tuesday and Wednesday afternoons, 2:00-5:00 p.m., beginning June 12. Section (c): Monday, Tuesday and Wednesday evenings, 7:00-10:00 p.m., beginning July 10. Section (d): Tuesday, Wednesday and Thursday afternoons, 2:00-5:00 p.m., beginning July 25.

Fee: \$40.00

# INTRODUCTION TO DRAWING

Course Description: Exploring line; using pencil, charcoal, and ink. Basic supplies included in class fee

Summer Schedule: Section (a): Each Monday and Wednesday evening for 3 weeks, 7:00-10:00 p.m., beginning May 29. Section (b): Each Monday and Wednesday evening for 3 weeks, 7:00-10:00 p.m., beginning July 10. Fee: \$35.00

## SLIP CAST CERAMICS (using molds)

Course Description: Liquid clay is poured in plaster of Paris molds to form a shell of the desired shape. A good basic knowledge of handling clay, and other materials used to complete attractive finished pieces is offered in these classes. Beginning tools and clay are included in the fee, also use of workshop for the remainder of the summer. Glazes and other ceramic materials may be purchased at the Craft Center.

Summer Schedule: Section (a): Monday and Thursday evenings, 7:00-10:00 p.m., for 2 weeks, beginning May 29. Section (b): Monday and Thursday afternoons, 2:00-5:00 p.m., for 2 weeks, beginning June 12.

Fee: \$22.00

Classes in:

DECOUPAGE, WICKER BASKETRY, and FIBER TECHNIQUES FOR SOFT SCULPTURE AND JEWELRY may be arrranged if interest merits. Please inquire at Craft Center Registration.

REMINDER: Registration will take place at the Craft Center in the basement of the Frank Thompson Building on May 18, 1978, 12:30-7:30 p.m. No registration by mail or phone will be accepted. NOTIFICATION OF CANCELLATION MUST BE RECEIVED 48 HOURS BEFORE THE COURSE BEGINS IN ORDER TO GET REFUND.



On campus housing at N. C. State includes 16 residence halls as well as apartments for married students.

# SUMMER SESSIONS FACULTY

## A

Carles Neel Anderson, M.E., Asisitan Prefessor of Mathematics Angels Body Abbase, M.R.R. Asositan Prefessor of Biological and Agricultural Espineering C.F. Adress, M.R.D., Assositan Prefessor of Esological and Agricultural Espineering Association and Antonia and Association and Association and Association and Neuritit Association, Phys.D., Association Prefessor of Economics and Business Merritit Association, Phys.D., Association Prefessor of Economics and Business Merritit Association, Phys.D., Association Prefessor of Contonion and Business Merritit Association, Phys.D., Association Prefessor of Contonion and Business Merritit Association, Phys.D., Association Prefessor of Controllino and Instruction Pask Bradley Amsterger, Ph.D., Diversity Prefessor of Boliothemistry Phys.B. Bealdy Amsterger, Phys.D., Business Prefessor of Gardish Millerd Timothy Association, Phys.D., Business Therefessor of Gardish Businet, Phys.D., Weinstein, Phys.B., Business, Prefessor of Basine, Phys. Bealther, Phys.D., Business, Phys.B., Phys.B., Business, Phys.B., Bu

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Willard Farrington Babcock, S.M., Professor of Civil Engineering John Albert Bailey, Ph.D., Professor of Mechanical and Aerospace Engineering Barbara Hurst Baines, Ph.D., Assistant Professor of English David Stafford Ball, Ph.D , Associate Professor of Economics David Stafford Ball, Ph.D., Associate Professor of Economies Howard G. Ball, Ph.D., Associate Professor of Oricinum and Instruction James Roderick Banker, Ph.D., Associate Professor of History Coorge Oates Batton, 85 M E, Instructor in and Ausitant Head of Mechanical and Aerospace Engineering William John Barcilay, Ph.D., Professor of Electrical Engineering James C. Barker, Ph.D., Extension Assistant Professor of Biological and Agricultural Egineering Kenneth Reece Barker, Ph.D., Professor of Plant Pathology Beaburn Neter Barnes, FLD, Assistant Professor of Using Engineering Bobby David Barnes, FLD, Assistant Professor of Diological and Agricultural Engineering Robert Les Beckman, FLD, Assistant Professor of Biological Sciences and Botany Robert Lee Deckana, in D., Assinatar Fridemon of Dorngent Sciences and Dou Barton F. Beers, Fh.D., Fridemor of History David Michael Benson, Ph.D., Assistant Professor of Plant Pathology Carol Lynn Berte, M.E.J., Assistant Professor of Physical Education Londias Judo Betts, Ar., EdD, Associate Professor of Physical Education Londias Judo Betts, Ar., EdD, Associate Professor of Physical Education Leondas Judd Betts, Jr., Ed.D., Associate Professor of English and Edu Marvin Exameth Beute, Ph.D., Associate Professor of Flant Pathology William Louis Bingham, Ph.D., Associate Professor of Civil Engineering John William Bishir, Ph.D., Professor of Mathematics Paul Edward Bishop, Ph.D., Assistant Professor (USDA) of Microbiology Gary Brian Blank, M.S., Instructor in English George Hansson Blessis, M.E., Associate Professor of Civil Engineering Milton Clay Bliss, M.A., Assistant Director of Music and Visiting Assistant Professor of Music Anton Uay bias, R.A., Assidant Darktor of Maine and Vating Assistant Protesse Oarden B. Boser, P.D. Assistant Professor of Chemistry C. Ed. Boren, M.P.A., Special Lecturer in Economics and Basiness Harry Dittimus Bowen, Ph.D., Professor of Chemistry Paul Arsuld Facebacy, Ph.D., Professor of Chemistry Michael J. Briggson, M.A., Lecturer in Physical Education Robert Curtis Brisson, Ph.D., Associate Professor of Sociology and Anthropology Marvin Luther Brown, Jr., Ph.D., Professor of History William Paul Brown, M.B.A., Instructor in Economics and Busines Robert Sedgwick Bryan, Ph.D., Professor of Philosophy and Head of Philosophy and Religion Carl Lee Bumgardner, Ph.D., Professor and Head of Chemistry Ernest Edmund Burniston, Ph.D., Professor of Mathematics John E. Burton, Jr., Ph.D., Assistant Professor of Sociology and Anthropology Robert McMaster Butler, M.A., Visiting Lecturer in English

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Caude S: Caldwell, J.D., Adjunct Professor of Political Science Leon Reymood Camp, Ph.D. Associate Professor of Speech Commonization Stephen La Verz Campbell, Ph.D. Associate Professor of Mathematics Poly Menet Control MS, Professor W Workson Deer Science William Randolph Carter, Ph.D., Associate Professor of Philosophy Teny W. Cates, M.A., Visiting Enstructure in Physical Education Thomas Courtney Caves, Ph D , Associate Professor of Chemistry Richard Edward Chandler, Ph.D., Professor and Graduate Administrator of Mathematics Allen Chia-Chen Chao, Ph.D., Assistant Professor of Civit Engineering Harvey Johnson Charlton, Ph.D., Assistant Professor of Mathematics William A. Cheek, M.S. Lecturer in Physical Education Donna L. Chmielewski, Ph.D., Assistant Professor of Psychology Lung Ock Chung, Ph D , Assistant Professor of Mathematics Carlyle Newton Clayton, Ph.D., Professor of Plant Pathology Grover Cleveland Cobb, Jr., Ph D , Associate Professor of Physics Paul Rodman Cockshutt, A B . Instructor in English reservournen voesannutt, A.B., instructor in Engine Line L. Coffree, Ih.D., Assistant Professor of Foreign Languages and Literatures Jo-Ann D. Cohen, Ph.D. Assistant Professor of Mathematics James Lawrence Cole, Ph.D. Associate Professor of Phychology Robert M. Collins, Ph.D., Assistant Professor of History J. Lin Compton, Ph D., Assistant Professor of Adult and Community College Education Charles Joseph Constantin, Ph.D., Assistant Professor of History Henry Charles Cooke, M.S., Associate Professor of Mathematics Arthur Wells Cooper, Ph.D., Professor of Forestry and Bolany Alonzo Freeman Coots, Ph D., Associate Professor of Chemistry Harold Maxwell Corter, Ph D., Professor of Psychology Ellis Brevier Cowling, Ph D., Professor of Plant Pathology, Wood and Paper Science, and Forestry Walter L. Cox, Jr., Ed.D., Assistant Professor of Education and Coordinator, Introduction to Vecations Paul Day Cribbins, Ph.D., Professor of Vici Engineering Henry Leland Crouch, M.A.T., Instructor in Mathematics Joseph William Cunningham, Ph.D., Professor of Psychology

### D

James Alvin Degrepher, J., "B.D., Assistant Preference of Mechanical and Aerospace Engineering John Michael Anatopo Dashy, "B.D., Professor of Mathematics and Pratice Belmout Profession Dash/Edg. D., "B.D., Association Preference of Engine Hendle Leng Durings, M.T., Instruction in Mathematics William Robert Davis, "P.D., Professor of Paylins Columns, M.T., Instruction in Mathematics William Robert Davis, "P.D., Professor of Paylins Columns, Column, M.T., Instruction Professor of Socialing and Anthropology Watter Journes Debrayens, "P.D., Parliamist Preference of Socialing and Anthropology Watter Journes Debrayens, "P.D., Professor of Chemistry, E. Richard Deller, Paylew, P.D.D., Assistant Professor of Socialing and Anthropology Watter Journes Debrayens, "P.D., Professor of Chemistry, Watter Journes Debrayens, "P.D., Professor of Chemistry, Bayler Mathematics, "P.D., Professor of Chemistry, Bayler Mathematics, "P.D., Professor of Chemistry, Robert Alena, P.D., Professor of Mathematics Robert Alena Douglas, "P.D., Professor of Mathematics Robert Alena Douglas, P.D., Professor of Mathematics Roberts, P.D., Visitian, Assistant Professor of Social and Genematicy College Education Assistant, "D.D., Association Professor of Mathematics Association, "D.D., Association Professor of Mathematics Association, "D.D., Professor of Socialization and Association and Association and Association and Association and P.D., Association Professor of Socialization Association, "D.D., Professor of Socialization and Association and As

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William Taylor Easter, M.S., Associate Prefereor of Descritonal Engineering and Director of Engineering Operations Volkie Bohamadk, Ph.D., Assiciate Professor of Chemistry Sanda Astern Zierzecke, Ph.D., Performer of Mechanoga and Acrospace Engineering General Hange Elans, Ph.D., Performer of Mechanoga Robert Neural Ellinett, Ph.D., Associate Professor of Biotect Journe Brained Evan, Ph.D., Performer of Mechanoga Journe Brained Evan, Ph.D., Performer of Mechanoga

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Aded-Atal: Pahny, Ph.D., Professor of Materials Registering Maurice Hugh Farrier, Ph.D., Professor of Economy and Presetzy Robert Mercom Faur, Ph.D., Professor of Economics Thomas Fuil Favor, Ph.D., Aspicalite Trofessor of Horizan Languages and Literatures Desgists Fabors, Ph.D., Vastidia Professor of Economics and Business John Brvin Frank, Ph.D., Assistant Professor of Mathematics Desgists Fabors, Ph.D., Assistant Professor of Stratucty Long David Predeman, Ph.D., Professor of Chemistry Long David Predeman, Ph.D., Professor of Chemistry Banadi Overs Phile, Ph.D., Northerson of Mathematics Banadi Overs Phile, Ph.D., Professor of Mathematics Barbard T- Tankhangen, M.L., Instructure in Sporth-Communication

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William Sylvan Galler, Ph.D., Professor of Civil Engineering Marianne L. Gardner, Ph.D., Assistant Professor of Mathematics Dennis Evo Garoutte, Ph.D., Assistant Professor of Mathematics Ralph Gellar, Ph.D., Associate Professor of Mathematics Raph Gellar, Ph.D. Associate Professor of Mathematics Thesas Genera, N.S., Tachich, Theinkais in Frentry Thesas Genera, N.S., Tachich, Theinkais in Frentry Network, M. S., Stander, Ph.D., Anderson, T. S., Sander, S., Sander, S., Sander, C., Ginnes, Y. W. S., Anotacite Professor of Math and Community Collage Education Coaster Equence General, Ph.D., Associate Professor of Math and Community Collage Education Coaster Equence General, Ph.D., Resolution Professor of Math and Community Collage Education Coaster Equence General, Ph.D., Associate Professor of Math and Community Collage Education Coaster Equence General, Ph.D., Associate Professor of Math and Community Collage Education Coaster Equence General, Ph.D., Associate Professor of Math and Community Collage Education Community Collage Ph.D., Associate Professor of Math and Community Collage Education William Lee Gragg, Ph.D., Associate Professor of Adult and Community College Education Larry Frank Grand, Ph.D., Professor of Plant Pathology and Forestry William Cullen Grant, Ph. D, Assistant Professor of Zoology Joseph Green, M.L.A., Instructor in Horticultural Science Ralph W. Greenlaw, Ph.D., Professor of History Thomas James Grennes, M.A., Assistant Professor of Economics and Business Joan Scott Griffin, M.A., Instructor in English Edward Dewitt Gurley, Ph.D., Associate Professor of Civil Engineering Robert Grant Gwyn, M.A.T., Assistant Professor of Physical Education David Glen Haase, Ph.D., Assistant Professor of Physics William Leroy Hafley, Ph.D., Professor of Forestry and Statistics George Lincoln Hall, Ph.D., Professor of Physics

George Lincoin Hall, Ph.D., Professor of Physics Max Halperen, Ph.D., Professor of English Pat Brooks Hamilton, Ph.D., Professor of Poultry Science and Microbiology Thomas Napolis Hammond, Ph.D., Assistant Professor of Foreign Languages and Literatures Kmneth William Hanck, Ph.D., Associate Professor of Chemistry

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