LSC Use Only
Number: _____
Action: _____
Date: _____

UWUCC Use Only
Number: 92-30
Action: App
Date: 4/20/93
Senate App 5/4/93

CURRICULUM PROPOSAL COVER SHEET
University–Wide Undergraduate Curriculum Committee

I. **Title/Author of Change**

Course/Program Title: Early Childhood Education
Suggested 20 Character Course Title: Early Childhood Education
Department: Professional Studies in Education
Contact Person: Dr. Edwina B. Vold

II. **If a course, is it being Proposed for:**

__X__ Course Revision/Approval Only
_____ Course Revision/Approval and Liberal Studies Approval
_____ Liberal Studies Approval Only (course previously has been approved by the University Senate)
__X__ Program Revision Approval Only

III. **Approvals**

Marilyn E. Willis
Department Curriculum Committee

Edwina B. Vold
Department Chairperson

College Curriculum Committee

College Dean *

Director of Liberal Studies (where applicable)

Provost (where applicable)

*College Dean must consult with Provost before approving curriculum changes. Approval by College Dean indicates that the proposed change is consistent with long range planning documents, that all requests for resources made as part of the proposal can be met, and that the proposal has the support of the university administration.

IV. **Timetable**

Date Submitted to LSC: _____
to UWUCC: _____

Semester to be implemented: Fall 1992

Date to be published in Catalog: _____

II. Description of Curriculum Change

A. Catalog Description

EE 200 Introduction to Early Childhood Education 3 Credits

Prerequisites: None

Designed as an introductory course for prospective teachers of young children. Provides students with the opportunity to gain knowledge of historical, sociological, and political aspects of early childhood education. Emphasis on systematically observing, recording and evaluating children's behavior in classrooms.

B. Catalog Description

EE 315 Development and Learning Through Play 3 Credits

Provides early childhood educators with the knowledge and skills necessary to promote and guide children's play behavior as the child's basic learning mechanism. Emphasis on definitions, theories, and stages of play within the context of social, emotional, physical, and intellectual growth for children aged 0-8 years. Students will observe children at play, design specific learning activities that use a play/games format, and direct educational experiences during the supervised field component.

C. Catalog Description

EE 220 Language Development and Children's Literature 3 Credits

Language Development and Children's Literature will include the study of children's language acquisition and children's literature within the context of a developmentally appropriate language arts curriculum, preschool through the primary grades. Strategies for developing children's linguistic competence and integrating literature throughout the early childhood program will be emphasized. Observations, interviews, and teaching experiences are an integral part of the course.

Proposed Revisions to the Undergraduate Early Childhood Program

Background

Enrollment in the undergraduate Early Childhood Teacher Certification Program has increased steadily since the program was originally approved. As a result, we have been able to hire new faculty with expertise in Early Childhood Education. Due in part to changes in staffing and as a response to the results of our preliminary review from the National Council for the Accreditation of Teacher Education, we are proposing minor revisions to the undergraduate curriculum. The Early Childhood Committee has met on several occasions to revise and update the undergraduate curriculum. The changes we are proposing affect the course title, description and syllabus for EL 353, Preschool Education and the course titles (with minor revisions to the course descriptions) for EE 315, Play as Cognitive and Affective Development and EE 220 Language and Literature for Young Children. We are also rearranging the recommended course sequence during the junior year for our majors. The total number of credits required for graduation is increased by one credit.

Only one of the changes proposed in this document would affect another department on campus, but that change has already been approved for our Elementary Program. The change consists of allowing Early Childhood majors to take the Special Education competency exam or enroll in the course, EX 300 Education of the Exceptional Child. All of our majors would still be required to complete the course EX 464, Preschool Education of the Handicapped.

1. Proposed Course Title/Description Change

Existing Course Title: EL 353 Preschool Education

Current Catalog Description:

Principles and practices of guiding the learning experiences of kindergarten students. Special attention is given to observations, kindergarten program and its curriculum, and materials and methods of instruction.

Proposed Course Title: EE 200 Introduction to Early Childhood Education

Proposed Catalog Description:

Designed as an introductory course for prospective teachers of young children. Provides students with the opportunity to gain knowledge of historical, sociological, and political aspects of early childhood education. Emphasis on systematically observing, recording, and evaluating children's behavior in classrooms.

Rationale

Preschool Education has been an introductory course in the Early Childhood program and a recommended elective for Elementary Education throughout the history or our department. The NCATE review team recommended that our program have a course that is clearly designated, both by title and description, as an introduction to early childhood. They further recommended that we devote more course content to the historical and philosophical foundations of early

childhood education. Renumbering the course as a 200 level, changing the title, and placing greater emphasis on history and philosophy would address all of these issues.

2. Proposed Course Title/Description Changes

Rationale: This course title is cumbersome and does not communicate the content well.

EE 315 Play as Cognitive and Affective Development
EE 315 Development and Learning Through Play

Catalog Description:

Provides early childhood educators with the knowledge and skills necessary to promote and guide children's play behavior as the child's basic learning mechanism. Emphasis on definitions, theories, and stages of play within the context of social, emotional, physical, and intellectual growth for children aged 0-8 years. Students will observe children at play, design specific learning activities that use a play/games format, and direct educational experiences during the supervised field component.

EE 220 Language and Literature
EE 220 Language Development and Children's Literature

Rationale: This course title is being changed to better communicate the course content to students.

Catalog Description:

Language Development and Children's Literature will include the study of children's language acquisition and children's literature within the context of a developmentally appropriate language arts curriculum, preschool through the primary grades. Strategies for developing children's linguistic competence and integrating literature throughout the early childhood program will be emphasized. Observations, interviews, and teaching experiences are an integral part of the course.

3. Proposed Change in Major Sequence I and II:

Rationale:

We have decided to cluster together those methods courses that focus on teaching preschoolers and those courses that focus on teaching in the primary grades. With this new plan, the first semester of the Junior year would include those methods courses dealing with preschool teaching and a field assignment working with children from three to five years of age:

Major Sequence I

Ages of Children in Setting: 3-5 year olds

EE 220 Language Development and Children's Literature*
EE 315 Development and Learning Through Play*

EE 312 Aesthetic Experiences (Art, Drama, Music and Movement)

During the spring semester of their Junior year, our majors take a sequence of methods courses geared to the primary grades. Because the accompanying field experience takes place in public school classrooms--first through third grade--there is more emphasis on formal lesson planning:

Major Sequence II

Ages of Children in Setting: 5-8 year olds

EE 310 Integrated Curriculum I (Problem Solving, Mathematics, Science)
EE 311 Integrated Curriculum II (Health, Safety, and Social Studies)
EE 451 Teaching Primary Reading

The total degree requirements for graduation went from 126 to 127 credits. Please note that the 1992 undergraduate catalog was in error. It stated that 24 credits were required. For a complete overview of all curriculuar changes, see the old and new program checklists.

4. Special Education Competency Exam

We are requesting that our Early Childhood majors be permitted to take either EX 300 or take the competency examination administered by the Special Education Department. This policy is already in effect for our Elementary Education undergraduates. Early Childhood majors would still be required to complete EX 464, Preschool Education of the Handicapped. A letter of support for this action is included in Part Four of this document.

5. Two changes that were made in the elementary program have been incorporated into the Early Childhood Program. These include:

EL 357 Pedagogy II as a requirement for all majors and
ED 499 Multicultural/Multiethnic Education

6. It is a Professional Studies in Education Department policy that a 2.5 cumulative grade point average is required to register for courses in the major. The new checklist for Early Childhood majors reflects this policy.

EARLY CHILDHOOD EDUCATION
PROGRAM REVISION

Part I. Introduction to Program Revision

The Early Childhood Education Undergraduate program is housed in the Department of Professional Studies in Education. It was approved by the University Senate in 1981 and by Pennsylvania Department of Education in 1982. For the past ten years, the program has made astonishing accomplishments and the changes that have been made in the quality of program offerings have resulted in better prepared teachers of young children at nursery through third grade levels.

The quality of students graduating from the early childhood education undergraduate program has remained constant, while the quantity of graduates has increased.

Graduates in Early Childhood Education

1985	1986	1987	1988	1989	1990	1991	1992
0	10	7	19	16	31	34	25

Jr. Field Experiences

Spring Semesters	1982	1984	1989	1990	1992
Approximate No. of Placements:					
Early Childhood Ed.	1	10	25	36	42
Child Dev./Family Relations	0	3	3	2	0

The goal and the objectives have been comparable with other institutions with early childhood education programs and of like size and mission. However, changes in student populations in early childhood settings and societal directions provide a focus for our goals and program.

Current National Trends in Early Childhood Education

There are sweeping changes in our society, changes that will not only increase the demand for early childhood programs, but also change the types of prgrams offered and the expectations for teachers who work in those programs.

There are at least three reasons why preschool programs are flourishing at this time:

- changes in the dominant American family structure and the resultant demand for quality child care;
- longitudinal research findings that support the salutory effects of early intervention; and
- growing awareness of the need for greater equity in education, particularly during the early years.

Perhaps the most obvious social influence on the demand for early childhood programs is the increase in single parent families. The Children's Defense Fund (1991) projects that over 40 percent of all children will live in a female-headed household before reaching adulthood and nine out of ten mothers--married or single--will be in the workforce. by the year 2000, if the present trends continue, nearly a third of mothers will postpone childbearing until after age 30 (Lewis, 1985). As a group, these mothers will be more career-oriented and demands for high-quality early childhood education programs will increase.

A second influence is the growing awareness of the importance of early childhood education and the positive impact of high-quality early childhood programs particularly for at-risk children. Harold Hodgkinson (1991), a leading educational demographer, estimates that every $1 spent on Head Start saves $7 in later services--an excellent return on the investment.

Moreover, it is a generally held view that very important learnings occur during early childhood, that learning difficulties are more remediable early on, and that a child's initial school experiences set the tone for later school experiences. Longitudinal research, such David Weikart's (1988) High/Scope study, have persuasively presented a case for early intervention. A review of Gallup Poll results over the past four years documents a major upward trend in public acceptance of public school pre-kindergarten programs. Over 80 percent of the 18-29 year-olds are now in favor of tax-supported preschool programs housed in public schools. The American public has begun to regard a national system of public school preschool as the right of every child and family.

A third major influence on the decision to provide more and better early childhood programs is a commitment to equity in educational opportunity. There is increased sensitivity to the inequities in educational opportunities, particularly for the very young.

Future Trends Affecting Early Childhood Teacher Certification Programs

A fundamental goal of the America 2000 report is for every child to arrive at school "ready to learn." Although that goal is subject to interpretation, families, educators, and politicians can agree on one thing--that the most logical way to insure optimal development of children's abilities is to educate them well and begin early.

Since 1985, the number of states sponsoring public school preschool programs has doubled (Day, 1988). According to the Department of Education, an estimated 6.5 million children are in pre-primary programs and 4 million of those children are now in public preschool programs. By 1993, a projected seven million children will be in pre-primary programs and the number of three- and four-year-olds in public school is expected to increase dramatically (Center for Education Statistics, 1990).

As this happens, the demand for early childhood teachers who are the product of a four year teacher certification program will increase dramatically and, job opportunities for teachers certified nursery school through third grade will expand. Experienced private preschool teachers with two year associate degrees who seek public school employment will need early childhood teacher certifica-tion to do so. Even teachers who are already certified in elementary education will find it necessary to return to school and obtain early childhood teacher certification in order to work in early childhood programs.

Cynthia Warger (1988) summarized the current situation in preschool programs nationally this way:

> American educators, encouraged by parents, political leaders, and public officials, have been moving quickly to accept new levels of responsibility for the education of young children. No longer the province of the very rich or the very poor, preschool education now holds the potential for greater academic achievement, less at-risk behavior in the teen years, and enhanced educational opportunity for children from all economic sectors. This promise, combined with simple economic need, has led to heightened interest in programs designed by public school systems to prepare children for entry into the educational system. (p. vii)

We also base our revisions on recommendations and input from other sources including:

1. Policy statements from the National Association of the Education of Young Children and the Association of Teacher Education
2. Recommendations from accrediting agencies such as: National Council for the Accreditation of Teacher Education and the Pennsylvania Department of Education
3. Follow-up Study of Recent Graduates of the Early Childhood Education program

The proposed revisions which follow also reflect the Department's Mission Statement.

Departmental Mission Statement (revised 1993)

As an integral part of the College of Education, Professional Studies in Education is a multi-faceted department committed to offering high quality undergraduate, masters and doctoral programs. All students engage in scholarly activity to advance the knowledge base of the field of education. The department collaborating with school districts, prepares techers and administrators who think creatively, critically and humanely; who have in-depth knowledge of the world we live in; and, who are skilled in current pedagogy, research and technology.

Based on the above mission statement, the following goals are identified for the students in the department. Students are expected to:

1. Acquire a depth of knowledge in at least one specialization area and acquire basic knowledge in the humanities, social sciences, natural sciences, mathematics and fine arts.

2. Develop a positive attitude toward learning and intellectual pursuits.

3. Establish a professional identity.

4. Demonstrate a commitment to understanding and respecting all people from diversity including gender, race, ethnicity and class.

5. Acquire the ability to think critically and communicate effectively.

6. Develop skill in varied teaching strategies and innovative methodologies.

7. Apply theory and research during a sequence of clinical experiences.

8. Develop the necessary skill for instruction and curriculum development in one of the following certification areas:

   a. Early Childhood Education

   b. Reading

   c. Elementary Education

The common elements in the department's mission statement, the department's philosophy and the college and university missions are illustrated below.

COMMON THEMES IN UNIVERSITY, COLLEGE AND DEPARTMENTAL MISSION STATEMENTS

Effective Communication

Critical Thinking

The Understnding and Commitment to Diversity

The Development of Personal and Professional Responsibility for Growth (Self-directed Learning)

Skill in Pedagogy and Research

The Dissemination of Knowledge

The Acquisition of Knowledge in at Least One Academic Discipline and Basic Knowledge in the Humanities, Social Sciences, Natural Sciences, Mathematics and Fine Arts

Part II. Description of Curriculum Change

*No change in catalog description which states:

The Early Childhood Education Program prepares students to select from among a variety of techniques and strategies those which appropriately expand children's cognitive, social, emotional, and physical development. Through lectures, research, and on-site experiences with young children, students are able to expand their own knowledge of and attitudes toward education of young children Nursery school through 3rd grade.

The current requirements for graduation with a Bachelor of Science in Early Childhood Education (*) as found in the 1992-93 catalog are:

Liberal Studies: As outlined in Liberal Studies section with the following specifications:		54-55
Mathematics: MA 151		
Natural Sciences: SC 101, 102, 103, 104		
Social Science: GE 101 or GE 103, PC 101		
Liberal Studies Electives: No courses with EE prefix		
College:		29
Professional Education Sequence		
CM 301 Technology for Learning and Instruction	3 s.h.	
ED 242 Pre-Student Teaching I	1 s.h.	
ED 342 Pre-Student Teaching II	1 s.h.	
ED 441 Student Teaching	12 s.h.	
ED 442 Practicum & School Law	3 s.h.	
EP 202 Educational Psychology	3 s.h.	
EP 377 Educational Tests and Measurements	3 s.h.	
FE 202 American Education in Theory and Practice	3 s.h.	
Major:		36
Required courses:		
EE 220 Language and Literature	3 s.h.	
EE 310 Integrated Curriculum I	3 s.h.	
EE 311 Integrated Curriculum II	3 s.h.	
EE 312 Aesthetic Experiences for Young Children	3 s.h.	
EE 315 Play as Cognitive and Affective Development	3 s.h.	
EL 215 Child Development	3 s.h.	
EL 353 Preschool Education	3 s.h.	
EL 451 Teaching Primary Reading	3 s.h.	
EX 300 Education of the Exceptional Child	3 s.h.	
EX 464 Preschool Education of the Handicapped	3 s.h.	
HE 426 Techniques of Parent Education	3 s.h	
MA 450 Preschool and Primary Math	3 s.h.	
Free Electives		4-5
Total Degree Requirements		124

(*) See requirements leading to teacher certification in the catalog section on Academic Policies, "Admission to Teacher Education."

The proposed requirements for graduation with a Bachelor of Science in Early Childhood Education areas of the following. Those courses that have been changed are indicated by an o; those with title changes only are indicated by a +.

Liberal Studies: As outlined in Liberal Studies section with the following specifications:		56
Mathematics: MA 151		
Natural Sciences: SC 101-104		
Social Science: GE 101, 103 or 104, PC 101		
Liberal Studies Electives: No courses with EE prefix		
College:		29
Professional Education Sequence		
CM 301 Technology for Learning and Instruction	3 s.h.	
ED 242 Pre-student Teaching Clincal Experience I	1 s.h.	
ED 342 Pre-student Teaching Clinical Experience II	1 s.h.	
ED 441 Student Teaching	12 s.h.	
ED 442 School Law	1 s.h.	
EP 202 Educational Psychology	3 s.h.	
EP 377 Educational Tests and Measurements	3 s.h.	
FE 202 American Education in Theory and Practice	3 s.h.	
ED 499 Multicultural/Multiethnic Education	2 s.h.	
Major:		36
A 2.5 overall grade point average is required to register for major courses.		
Required courses:		
o EE 200 Introduction to Early Childhood Education (formerly Preschool Education)	3 s.h.	
+ EE 220 Language Development and Children's Literature	3 s.h.	
EE 310 Integrated Curriculum I (Math, Science)	3 s.h.	
EE 311 Integrated Curriculum II (Social Studies)	3 s.h.	
EE 312 Aesthetic Experiences for Young Children	3 s.h.	
+ EE 315 Development and Learning Through Play	3 s.h.	
EL 215 Child Development	3 s.h.	
EE 451 Teaching Primary Reading	3 s.h.	
EL 357 Pedagogy II	3 s.h.	
EX 464 Preschool Education of the Handicapped	3 s.h.	
HE 426 Techniques of Parent Education	3 s.h	
MA 450 Mathematics for Early Childhood	3 s.h.	
Free Electives		4-6
Total Degree Requirements		125

(*) See requirements leading to teacher certification in the catalog section on Academic Policies, "Admission to Teacher Education."

o course revisions
+ title changes

Other provisions:
EX 300 - a competency exam (or enrollment in the course) is required.

Summary of Changes in the Early Childhood Education Program

A. Liberal Studies Requirements:

Students were required to take SC 105 Physical Science I and SC 106 Physical Science II, a total of eight credits. Students will be required in the new program to take SC 101 Physics, SC 102 Chemistry, SC 103 Earth and Space Science and SC 104 Biology, a total of ten credits.

Rationale: Students in the Elementary Education Undergraduate program are required to take the ten credit sequence approved by Liberal Studies. To maintain consistency in the departmental requirements and to ensure that Early Childhood Education majors are exposed to a broader range of the sciences, the proposed changes are requested.

B. Professional Certification Core:

1. EX 300

Students were required to take EX 300 Education of the Exceptional Child in the Regular Classroom.

In the proposed program, students will follow the College of Education guidelines. They will be required to pass the Special Education Competency Test or take the course EX 300. Students in the Early Childhood Education Program will still be required to take EX 464 Pre School Education of the Handicapped as a part of their major requirements.

Rationale: Consistency with College of Education requirements.

2. ED 499

Students will be required to take ED 499 Multicultural Education Curriculum, a two credit course, as a part of their professional certification core.

Rationale: Based on NCATE standard 1.9 and the College of Education and Department's mission statements, the course will provide an additional vehicle for helping students to become aware of, respect, and celebrate diversity in their teaching. It also provides a consistency in that Elementary Education majors are also required to take the course. For Standard 1.9, see appendix.

C. Major Course Requirements:

The required course EL 353 PreSchool Education will be changed to EE 200 Introduction to Early Childhood Education. The revised description will read: The course provides students with the opportunity to gain knowledge of historical, sociological and political aspects of early childhood education; to study various models of early childhood education; and, to develop skills in systematically observing, recording and evaluating children's behavior and their environment. The course is also recommended as an elective for Elementary Education majors.

Rationale: According to NCATE Standards 1.2, 1.4, and 1.10 the experiences in the revised course must be included in an approved program.

These experiences include the historical and sociological foundations of early childhood education, systematic observation of children in early childhood environments, and examination of legislative and social effects on the education of young children. (See Appendix for Standards 1.2, 1.4, and 1.10)

Students will take Pedagogy II during the Junior Year. The course is a part of the approved elementary education program. (Senate approved 1991)

Rationale: Pedagogy II includes experiences with classroom management, parent/teacher interactions, ways to use research as a classroom tool and indepth discussions of issues related to teaching and professionalism. These topics are required by NCATE in Standards 1.6, 1.7 and 2.1.2 and were not systematically covered in any major courses. For Standards 1.6, 1.7 and 2.1.2, see appendix.

D. Special Electives: The titles (only) of two required major area courses are being changed. EE 220, previously Language and Literature for Young Children is retitled as Language Development and Children's Literature. EE 315 Play as Cognitive and Affective Development is retitled Development and Learning Through Play. Course syllabi that reflect the title changes are attached.

Rationale: These changes reflect current terminology in the field of early childhood education.

Through the special electives (18-21 s.h.), students will have the opportunity to strengthen their knowledge base in areas of interest and/or strength from the humanities, social science, natural science, mathematics, psychology and child development and family relations. The special electives serve as a vehicle for improving the self-confidence and self-esteem of preservice early childhood education teachers. It also improves the marketability of students entering the job market.

E. There are 124 credits in the current Early Childhood Education undergraduate program. In the proposed program there are 125 credits without a separate Nonwestern cultures course. The increase is not significant in that the sequence can be completed in eight semesters.

Proposed Program
EARLY CHILDHOOD EDUCATION

Checklist for Bachelor of Science Degree Candidates
College of Education
Effective September 1993
(2/18/93)

Name_____ Social Security Number _____

		GRADE	COURSE
LIBERAL STUDIES REQUIREMENTS (56-60 cr.)			
Learning Skills: English Composition	(7)		
College Writing	4	_____	EN 101
Research Writing	3	_____	EN 202
Learning Skills: Mathematics	(3)		
Elements of Mathematics I	3	_____	MA 151
Humanities	(9)		
History:			
History: The Modern Era	3	_____	HI 195
Literature:			
EN 121 - Introduction to Literature	3	_____	EN 121
Philosophy or Religious Studies: (one course) PH 101, PH 120, PH 221, PH 222, PH 223, RS 100, RS 250, or RS 290	3	_____	_____
Fine Arts (one course)	(3)		
AH 101, MH 101, or TH 101	3	_____	_____
Natural Science	(10)		
Fundamentals of Physics	2.5	_____	SC 101
Fundamentals of Chemistry	2.5	_____	SC 102
Fundamentals of Earth and Space Science	2.5	_____	SC 103
Fundamentals of Environmental Biology	2.5	_____	SC 104
Social Sciences (three courses)	(9)		
General Psychology	3	_____	PC 101
Geography course (one) GE 101, GE 102, GE 103, or GE 104 (GE 104 fulfills the Non-Western Cultures course requirement)	3	_____	GE ___
Choose one social science course from the approved list _____	3	_____	_____
Health and Wellness	(3)		
Health & Wellness	3	_____	HP 143
or			
Nutrition & Wellness	3	_____	FN 143
or			
One year of military science	4	_____	MS ___
		_____	MS ___

		GRADE	COURSE
Liberal Studies Electives	(9)		

Choose three courses from the approved list; one course must be numbered 200 or higher; no course prefix may be used more than once except intermediate-level foreign language prefixes which may be used twice.

_____	3	_____	_____
_____	3	_____	_____
_____	3	_____	_____

Synthesis	(3)		

Choose one course from the approved list.

_____	3	_____	LS 499

Non-Western Cultures

Choose one course from the approved list, if this requirement has not been met by another Liberal Studies course.)

_____	3	_____	_____

PROFESSIONAL EDUCATION REQUIREMENTS (29 cr.)
(A 2.5 CGPA is required to register for these courses.)

American Education in Theory and Practice	3	_____	FE 202
Pre-Student Teaching I	1	_____	ED 242
Technology for Learning and Instruction	3	_____	CM 301
Educational Psychology	3	_____	EP 202
School Law	1	_____	ED 442
Pre-Student Teaching II	1	_____	ED 342
Educational Tests and Measurements	3	_____	EP 377
Student Teaching	12	_____	ED 441
Multicultural Education	2	_____	ED 499

MAJOR REQUIREMENTS (36 cr.)
(A 2.5 CGPA is required to register for these courses.)

Introduction to Early Childhood Education	3	_____	EE 200
Language Development and Children's Literature (W)	3	_____	EE 220
Teaching Primary Reading	3	_____	EE 451
Child Development	3	_____	EL 215
Integrated Curriculum I	3	_____	EE 310
Integrated Curriculum II	3	_____	EE 311
Aesthetic Experiences for Young Children	3	_____	EE 312
Development and Learning Through Play	3	_____	EE 315
Pedagogy II	3	_____	EL 357
Preschool Education of the Handicapped	3	_____	EX 464
Techniques of Parent Education	3	_____	HE 426
Mathematics for Early Childhood	3	_____	MA 450

EX 300 - Education of the Exceptional in the Regular Classroom (competency exam required - EX 481)	_____	_____	_____

Electives	(4-6 cr.)			
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	

TOTAL CREDITS (125-131 cr.)
(With a separate Non-Western Cultures course - 128 cr.)
EE 220 fulfills the requirement for one writing intensive course; mark a W by the other writing intensive course that was taken.

EARLY CHILDHOOD EDUCATION

Checklist for Bachelor of Science Degree Candidates
College of Education
Effective 1989
(8/31/92)

Name_____ Social Security Number _____

		GRADE	COURSE
LIBERAL STUDIES REQUIREMENTS (54-58 cr.)			
Learning Skills: English Composition	(7)		
College Writing	4	_____	EN 101
Research Writing	3	_____	EN 202
Learning Skills: Mathematics	(3)		
Elements of Mathematics I	3	_____	MA 151
Humanities	(9)		
History:			
History: The Modern Era	3	_____	HI 195
Literature:			
EN 121 - Introduction to Literature	3	_____	EN 121
Philosophy or Religious Studies: (one course) PH 101, PH 120, PH 221, PH 222, PH 223, RS 100, RS 250, or RS 290	3	_____	_____
Fine Arts (one course)	(3)		
AH 101, MH 101, or TH 101	3	_____	_____
Natural Science	(8)		
Physical Science I	4	_____	SC 105
Physical Science II	4	_____	SC 106
Social Sciences (three courses)	(9)		
General Psychology	3	_____	PC 101
Geography course (one) GE 101, GE 102, GE 103, or GE 104 (GE 104 fulfills the Non-Western Cultures course requirement)	3	_____	GE ___
Choose one social science course from the approved list _____	3	_____	_____
Health and Wellness	(3)		
Health & Wellness (Revision for HP 140-141)	3	_____	HP 143
or			
Nutrition & Wellness (Revision for FN 140-141)	3	_____	FN 143
or			
One year of military science	4	_____	MS ___
		_____	MS ___

		GRADE	COURSE
Liberal Studies Electives	(9)		
Choose three courses from the approved list; one course must be numbered 200 or higher; no course prefix more than once except intermediate-level foreign language prefixes which may be used twice.			
_____	3	_____	_____
_____	3	_____	_____
_____	3	_____	_____
Synthesis	(3)		
Choose one course from the approved list.			
_____	3	_____	LS 499
Non-Western Cultures			
Choose one course from the approved list, if this requirement has not been met by another Liberal Studies course.)			
_____	3	_____	_____

PROFESSIONAL EDUCATION REQUIREMENTS (27 cr.)
(A 2.5 CGPA is required to register for these courses.)

American Education in Theory and Practice	3	_____	FE 202
Pre-Student Teaching I	1	_____	ED 242
Technology for Learning and Instruction	3	_____	CM 301
Educational Psychology	3	_____	EP 202
School Law	1	_____	ED 442
Pre-Student Teaching II	1	_____	ED 342
Educational Tests and Measurements	3	_____	EP 377
Student Teaching	12	_____	ED 441

MAJOR REQUIREMENTS (36 cr.)

Language and Literature	3	_____	EE 220
Teaching Primary Reading	3	_____	EE 451
Child Development	3	_____	EL 215
Integrated Curriculum I	3	_____	EE 310
Integrated Curriculum II	3	_____	EE 311
Diagnostic and Remedial Reading	3	_____	EL 422
Aesthetic Experiences for Young Children	3	_____	EE 312
Preschool Education	3	_____	EL 353
Education of the Exceptional in the Regular Classroom	3	_____	EX 300
Play as Cognitive and Affective Development	3	_____	EE 315
Preschool Education of the Handicapped	3	_____	EX 464
Techniques of Parent Education		_____	HE 426
or	3	or	
Mathematics for Early Childhood		_____	MA 450

Electives	(9 cr.)		
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

TOTAL CREDITS (126-127 cr.)
(With a separate Non-Western Cultures course - 129 cr.)
Mark a W by each of the two writing intensive courses taken.

Departmental Approval to Drop EX 300

December 9, 1992

Memo:

To: Mary Jalongo
Marilyn Willis
Department of Professional Studies in Education

From: Clarice Reber, Chairperson
Department of Special Education and Clinical Services

The Education of Exceptional Persons Program Committee approves your request to permit Early Childhood majors to take the Special Education Competency Test or EX 300 Education of the Exceptional Child in the Regular Classroom. We do so with regret as we believe that your students would be better served by the course. Unfortunately, faculty load constraints make it difficult to offer an adequate number of seats for your majors.

cc: Jerry Fiddler

IUP

Curricular Offering/Change Authorization

Please Check One For Each Form

- ☐ New Course Addition
- ☐ Course Deletion
- ☐ Course Number Change
- ☒ Course Descriptive Title Change
- ☐ Semester Hours Change

Professional Studies in Education

Department

- ☒ Undergraduate
- ☐ Graduate

List only one entry per form.
Submit this form to College Dean.

Please list below the full information requested for the course to be added/dropped or changed.

Action	Dept.	Number	Descriptive Title	Semester Hours	Remarks
Add					
Drop					
Change From	EE	220	Language and Literature for Young	Children 3 sh	
To	EE	220	Language Development and Children	s Literature	3 sh

My signature on this form signifies that I, or the approving agency which I chair on the following date approved the inclusion/deletion or changes listed above to the appropriate Master Course File.

Sign and route as follows

1. Scheduling - White
2. Chairperson - Canary
3. College Dean - Pink

Edwina R. Vold — **Chairperson** — 2/12/93 **Date**

John Bru — **Dean of College** — 2/12/93 **Date**

Chairperson of Curr. Comm/Grad Council — **Date**

IUP

Curricular Offering/Change Authorization

Please Check One For Each Form

List only one entry per form.
Submit this form to College Dean.

- [x] **New Course Addition**
- [ ] **Course Deletion**
- [ ] **Course Number Change**
- [ ] **Course Descriptive Title Change**
- [ ] **Semester Hours Change**

Professional Studies in Education
Department

- [x] **Undergraduate**
- [ ] **Graduate**

Please list below the full information requested for the course to be added/dropped or changed.

Action	Dept.	Number	Descriptive Title	Semester Hours	Remarks
Add	ED	499	Multicultural Education	2	Approved requirement for majors in the Professional
Drop					Studies in Education Dept.
Change From					
To					

My signature on this form signifies that I, or the approving agency which I chair on the following date approved the inclusion/deletion or changes listed above to the appropriate Master Course File.

Sign and route as follows

1. Scheduling - White
2. Chairperson - Canary
3. College Dean - Pink

Chairperson	**Date** 6/24/92
Dean of College	**Date** 2/12/92
Chairperson of Curr. Comm/Grad Council	**Date**

IUP

Curricular Offering/Change Authorization

Please Check One For Each Form

List only one entry per form.
Submit this form to College Dean.

- ☐ **New Course Addition**
- ☐ **Course Deletion**
- ☐ **Course Number Change**
- ☒ **Course Descriptive Title Change**
- ☐ **Semester Hours Change**

Professional Studies in Education Dept.
Department

- ☒ **Undergraduate**
- ☐ **Graduate**

Please list below the full information requested for the course to be added/dropped or changed.

Action	Dept.	Number	Descriptive Title	Semester Hours	Remarks
Add					
Drop					
Change From	EE	315	Play as Cognitive and Affective Development	3	
To	EE	315	Development and Learning Through Play	3	

My signature on this form signifies that I, or the approving agency which I chair on the following date approved the inclusion/deletion or changes listed above to the appropriate Master Course File.

Sign and route as follows

1. Scheduling - White
2. Chairperson - Canary
3. College Dean - Pink

Edwina B Vold — 2-9-93
Chairperson — **Date**

John Britt — 2-9-93
Dean of College — **Date**

Chairperson of Curr. Comm/Grad Council — **Date**

Curricular Offering/Change Authorization

Please Check One For Each Form

List only one entry per form.
Submit this form to College Dean.

- ☐ **New Course Addition**
- ☐ **Course Deletion**
- ☒ ~~Course Number Change~~ Course Prefix Change
- ☒ **Course Descriptive Title Change**
- ☐ **Semester Hours Change**

Professional Studies in Education
Department

- ☒ **Undergraduate**
- ☐ **Graduate**

Please list below the full information requested for the course to be added/dropped or changed.

Action	Dept.	Number	Descriptive Title	Semester Hours	Remarks
Add					
Drop					
Change From	EL	353	Pre-School Education	3	Elective for Elem. Education majors. Major Requirement for ~~Early Childhood Education~~
To	EE	300	Introduction to Early Childhood Education	3	Major Requirement for Early ~~Childhood Education~~

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Sign and route as follows

1. Scheduling - White
2. Chairperson - Canary
3. College Dean - Pink

Edwina B. Vaden — **Chairperson** — 6/24/92 — **Date**

John Burg — **Dean of College** — 2/8/93 — **Date**

Chairperson of Curr. Comm/Grad Council — **Date**

IUP

Curricular Offering/Change Authorization

Please Check One For Each Form

List only one entry per form.
Submit this form to College Dean.

- [x] **New Course Addition**
- [ ] **Course Deletion**
- [ ] **Course Number Change**
- [ ] **Course Descriptive Title Change**
- [ ] **Semester Hours Change**

Professional Studies in Education
Department

- [x] **Undergraduate**
- [ ] **Graduate**

Please list below the full information requested for the course to be added/dropped or changed.

Action	Dept.	Number	Descriptive Title	Semester Hours	Remarks
Add	EL	357	Pedagogy II	3	Added in junior year to meet NCATE standards and competences
Drop					dealing with parent interaction, research and professionalism.
Change From					
To					

My signature on this form signifies that I, or the approving agency which I chair on the following date approved the inclusion/deletion or changes listed above to the appropriate Master Course File.

Sign and route as follows

1. Scheduling - White
2. Chairperson - Canary
3. College Dean - Pink

Theresa B Vold — 6/24/92
Chairperson — **Date**

Julian Sy — 2/8/93
Dean of College — **Date**

Chairperson of Curr. Comm/Grad Council — **Date**

Curricular Offering/Change Authorization

Please Check One For Each Form

List only one entry per form.
Submit this form to College Dean.

- ☐ **New Course Addition**
- ☒ **Course Deletion**
- ☐ **Course Number Change**
- ☐ **Course Descriptive Title Change**
- ☐ **Semester Hours Change**

Professional Studies in Education
Department

- ☒ **Undergraduate**
- ☐ **Graduate**

Please list below the full information requested for the course to be added/dropped or changed.

Action	Dept.	Number	Descriptive Title	Semester Hours	Remarks
Add					
Drop	EX	300	Education of the Exceptional Child in the Regular Class	3	Replace with College of Education Requirement of
Change From					Competency Test
To					

My signature on this form signifies that I, or the approving agency which I chair on the following date approved the inclusion/deletion or changes listed above to the appropriate Master Course File.

Sign and route as follows

1. Scheduling - White
2. Chairperson - Canary
3. College Dean - Pink

Chairperson — Date: 6/24/92

Dean of College — Date: 2/8/93

Chairperson of Curr. Comm/Grad Council — Date

IUP

Curricular Offering/Change Authorization

Please Check One For Each Form

List only one entry per form.
Submit this form to College Dean.

- ☐ New Course Addition
- ☐ Course Deletion
- ☒ Course Number Change
- ☐ Course Descriptive Title Change
- ☐ Semester Hours Change

Professional Studies in Education
Department

- ☒ Undergraduate
- ☐ Graduate

Please list below the full information requested for the course to be added/dropped or changed.

Action	Dept.	Number	Descriptive Title	Semester Hours	Remarks
Add	SC SC	101 102	Fundamentals of Physics Fundamentals of Chemistry	2.5 2.5	Approved Liberal Studies Sequence for Elementary and
Drop	SC	105	Physical Science I	4.0	Early Childhood Education majors.
Change From					
To					

My signature on this form signifies that I, or the approving agency which I chair on the following date approved the inclusion/deletion or changes listed above to the appropriate Master Course File.

Sign and route as follows

1. Scheduling - White
2. Chairperson - Canary
3. College Dean - Pink

Chairperson — Date: 6/24/92

Dean of College — Date: 2/8/93

Chairperson of Curr. Comm/Grad Council — Date

IUP

Curricular Offering/Change Authorization

Please Check One For Each Form

List only one entry per form.
Submit this form to College Dean.

- ☐ New Course Addition
- ☐ Course Deletion
- ☒ Course Number Change
- ☐ Course Descriptive Title Change
- ☐ Semester Hours Change

Professional Studies in Education
Department

- ☒ Undergraduate
- ☐ Graduate

Please list below the full information requested for the course to be added/dropped or changed.

Action	Dept.	Number	Descriptive Title	Semester Hours	Remarks
Add	SC SC	103 104	Earth and Space Science Fundamentals of Environmental Biology	2.5 2.5	Approved by Liberal Studies for Elementary Education
Drop	SC	106	Physical Science II	4.0	Sequence.
Change From					
To					

My signature on this form signifies that I, or the approving agency which I chair on the following date approved the inclusion/deletion or changes listed above to the appropriate Master Course File.

Sign and route as follows

1. Scheduling - White
2. Chairperson - Canary
3. College Dean - Pink

Edwina B. Vold — 6/24/92
Chairperson — **Date**

John Burns — 2/8/93
Dean of College — **Date**

Chairperson of Curr. Comm/Grad Council — **Date**

ED 499

Multi-cultural/Multi-ethnic Education
Credit: 2 Semester Hours

Prerequisites:

It is strongly recommended that one methods course be taken prior to, or concurrently with ED 499.

Course Description:

Implementation of appropriate curricula programs must be predicated upon an understanding and appreciation of the cultural diversity that has made America what it is today. This course provides preservice educators with a process for understanding and appreciating diversity in the United States. The course will also provide preservice educators with the ability to locate and develop curricula materials appropriate to our country's diversity.

Course Objectives:

1. Students will study the philosophical and historical evolution of education that is multi-cultural.
2. Students will acquire knowledge regarding the sources of cultural diversity in American education systems.
3. Students will acquire knowledge regarding the effects of cultural diversity upon the testing of children and acquire skills in test selection.
4. Students will examine their own attitudes and behaviors as they relate to cultural diversity in society and multicultural education in schools.
5. Students will locate, design and produce instructional materials and strategies which can be infused into the regular classroom curriculum.

Sugested Texts:

Multi-ethnic Education, 2nd edition (James Banks)

Ethnic Pride (Greta Barclay Lipson and Jane A. Romatowski)

Course Outline:

Topic I The Evolution of Multi-cultural Education in the United States (2 weeks).

A. Education movements in the twentieth century
B. Social ideologies underlying the educational movements
C. Diversity in the schools in the United States based on:
    1. race
    2. ethnicity
    3. religion
    4. sex
    5. disabling conditions
    6. socio-economic status
    7. language

Topic II — Public Policies and Multi-cultural Education in the United States (2 weeks).

A. Civil Rights
B. Title IX
C. Ethnic Studies Heritage Act
D. Brown v. Board of Education

Topic III — Examining Your Ethnic Heritage (2 weeks).

A. View filmstrips and videos on ethnic studies in the United States
B. Share your ethnic heritage with peers

Topic IV — The Teacher's role as a Multi-cultural Education Facilitator (2 weeks).

A. Students will identify strategies

Topic V — Evaluating a School's Program (3 weeks).

A. NCSS Guidelines for multi-cultural education
B. Boyers Administration and School Evaluation
    1. Instructional strategies
    2. Testing materials
    3. Print materials
    4. non-print materials/media
C. Discussion of 'culture free' testing v. standardized and criterion-referenced tests.

Topic VI — Curriculum that is Multi-Cultural (3 weeks).

A. Review of multi-cultural edcuation programs and curriculum
B. Designing a multi-cultural lesson

Methodology:

Topics I and II will involve lecture/discussion. Topics III and IV will emphasize student participation and interaction. Topics V and VI will require individualized (or group) instruction/learning depending upon students' major.

Evaluation:

1. Class participation and interaction
2. Tests (Midterm and Final)
3. Two five-page papers (Sample topics)
    a. Social Ills and American Education
    b. Your Ethnic Heritage

Revised February 4, 1988

Course Syllabus
EE 200
INTRODUCTION TO EARLY CHILDHOOD EDUCATION
(formerly EL 353, Preschool Education)

I. Purpose:
Designed as an introductory course for prospective teachers of young children. Provides students with the opportunity to gain knowledge of historical, sociological, and political aspects of early childhood education. Emphasis on systematically observing, recording, and evaluating young children's behavior in classrooms.

II. Course Objectives:
At the completion of this introductory course in the early childhood sequence, the outcomes to be assessed include:

A. A knowledge of theoretical and historical influences on the variety of educational models of early childhood programs and child care environments.
B. A personal belief system of what constitutes quality early childhood programs.
C. A vocabulary of the early childhood profession.
D. An awareness of the physical and cultural diversity of children and families in early childhood settings.
E. An understanding of why and how advocacy affects the lives of young children.
F. Skill in observing, recording and evaluating children birth to age 8 and what takes place in the varied early childhood settings.
G. Recognition of the importance of communicating with and involving parents in the education of young children.
H. Expertise in working with other teachers, peers and staff in creating appropriate learning experiences for young children.

Specific Objectives:

Student will:

A. Understand the concept of a teacher's role and some of the major roles played by teachers of young children in a regular and mainstreamed environment.
B. Understand how a teacher's personal style may influence the ways in which he/she interacts with young children.
C. Understand the kinds of cultural differences and biases that affect relationships between and among family, children and teachers.
D. Become aware of one's own values for child development and education.
E. Understand the importance of consistency between a teacher's stated values and actual behavior.
F. Understand how theory and practice inform teachers about how young children learn.
G. Become aware of current issues in the field of human development and their implications for early childhood education.

H. Become knowledgable of the historical perspective of early childhood education.
I. Acquire knowledge of different programs in early childhood education today.
J. Become aware of the usefulness of observation/participation as a process for understanding young children.
K. Develop a technique for systematically observing young children.
L. Develop skills in teaching young children in individual small group and total group teaching experiences.
M. Develop skill in relating to adults and guiding children's behavior.
N. Know how early childhood curriculum areas contribute to children's development and approaches to teaching in each area.
O. Understand how learning experience can be related, integrated and provide developmental continuity.
P. Become aware of one's feelings and values about parent involvement.
Q. Develop parent interaction skills.
R. Acquire knowledge of all the different personnel in an early childhood environment.

III. TEXT

Seefeldt, C. & Barbour, N. (1993). Early childhood education: An introduction. Columbus, OH: Merrill.

IV. SUGGESTED ACTIVITIES

A. Observing and participating experiences:

1. Present ways to observe in early childhood environments in kindergarten - children, environment, equipment, etc.
2. Observe and participate in the physical environment and become familiar/acquainted with the materials before meeting the children.
3. Observe at least one hour, each two week period - total of six during the semester. A written evaluation of each observation is required.
4. The students are to participate in the preschool and kindergarten environments.

B. Teaching Experiences

1. Present a created story (written and illustrated by each student.)
2. Teaching any part of the preschool or kindergarten programs (gym, group meeting, work time)
3. At least four experiences working one-on-one with young children. Theme examples - something of value and special to you, puzzles, science, creating puppets, reading and writing.

C. Requirements of the Semester

1. Class attendance is required; class participation is required; share your ideas, suggestions, thoughts and wanderings; the textbook is your tool, a source - assignments relate to experiences students participate in - including all chapters during the semester; a final exam involves activities/experiences, class discussions, text, children, etc.; grading depends on the quality of the written and evaluation skills, participation with the children, teaching experiences with the individual child as well as whole group, etc.
2. Create, write and illustrate a book for young children.
3. Create and design an indoor and outdoor physical environment.
4. Choose three themes/topics and plan for two days of the school year.
5. Use activities/experiences - "hands on" in music, art, language, skills, and computers.

V. Lecture/Demonstration Topics

A. Historical Influences and Traditions in Early Childhood Education
Chapter 1 - Gordon

Additional Readings:
Chapter 22 - Hildebrand
Chapters 2, 3 and 4 - Morrison

B. Developmental/Learning Theories
Chapter 4 - Gordon

Additional Readings:
Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth Through Age 8. (NAEYC) 1987

C. Political Aspects of Early Childhood Education
Chapter 15 - Gordon

D. Observation and Evaluation of Children and Environments
Chapters 5, 6, 7, 9 and 10 - Gordon

Additional Readings:
Chapter 5 - Fenney
Observing and Recording the Behavior of Young Children by Cohen and Stern.
Studying the Child in School by Gordon.

E. Cultural Diversity and the Early Childhood Curriculum
Chapters 9-10 - Gordon

Additional Readings:
Chapter 21 - Hildebrand
Chapter 14 - Morrison
Teaching and Learning in a Diverse World by Ramsey

F. Curriculum Design

Additional Readings:

A Vision for America's Future (Children's Defense Fund) 1989
Chapter 3 - Fenney
Chapter 20 - Hendrick

G. Professionalism:
Appendix D - Gordon

Additional Readings:
Chapter 15 - Morrison
Department of Professional Studies in Education Guidelines 1992

VI. Classroom Requirements
A. Attend lecture/demonstrations and share in discussions
B. Complete observation report on the first designated early childhood site
C. Complete a second observation form used in the kindergarten class of the University School
D. 85% accuracy on mid-term evaluation (one alternative assessment is possible)
E. Final project is a written thesis on one of the seven lecture topics (Guidelines are provided by the instructor.)

Selected periodicals to be used for recent publications:

Journal of Research in Childhood Education, Association for Childhood Education International (ACEI)
Early Childhood Research Quarterly, National Association for the Education of Young Children (NAEYC)
Young Children, NAEYC
Childhood Education: ACEI
Teaching Pre K-8
Dimensions: Southern Association for Children Under Six (SACUS)

VII. Bibliography

Administration for Children, Youth & Families. (1988). Easing the transition: From preschool to kindergarten. A guide for early childhood teachers and administrators. Washington, DC: Administration for Children, Youth and Families and the U.S. Department of Health and Human Services.

Armstrong, T. (1987). In their own way: Discovering and encouraging your child's learning style. Los Angeles: Jeremy P. Tarcher.

Ashton-Warner, S. (1963). Teacher. New York: Simon & Schuster.

Barbour, N. H. (1990). flexible grouping: It works! Childhood Education, 67(2), 66-68.

Beatty, B. (1989). Child gardening: The teaching of young children in America. In D. Warren (Ed.) American teachers (pp. 65-98). New York: Macmillam.

Beatty, J. J. (1992). Preschool: Appropriate practices. New York: Harcourt Brace Jovanovich.

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Beatty, J. J. (1988). Skills for preschool teachers (3rd ed.). Columbus, OH: Merrill.

Burn, B. (1984). Metropolitan children. The Metropolitan Museum of Art, NY: Harry N. Abrams.

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Charters, J. & Gately, A. Drama anytime. Primary English Teaching Association, Australia, Distributed in the USA by Heinemann Educational Books, Inc., 70 Courts Street, Portsmouth, NH 03801.

Children's Defense Fund. (1991). A vision for America's future: An agenda for the 1900's. Washington, DC: Author.

Clay, M. (1985). Writing begins at home. Preparing children for writing before they go to school. Heinemann POB, New Zealand. Department of Education, Wellington, New Zealand. Reading in Junior Classes.

Collings, M. Using the environment. Early Explorations, MacDonald Educational, London.

Cohen, D. H. & Stern, V. (1965). Observing and recording the behavior of young children. New York: Teachers College Press.

Connell, D. R. (1987). The first 30 years were the fairest: Notes from the kindergarten and ungraded primary (K-1-2). Young Children, 42(1), 30-39.

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Elkind, D. (1982). The hurried child: Growing up too fast too soon. Reading, MA: Addison Wesley.

Fenney, S., Christensen, D. and Moravcik, E. (1987). Who am I in the lives of children? An introduction to teaching young children (3rd ed). Columbus, OH: Merrill.

Fulghum, R. (1989). All I really need to know I learned in kindergarten. New York: Villard Books.

Gordon, I. J. (1966). Studying the child in the school. New York: John Wiley.

Heath, S. B. & McLaughlin, M. W. (1989). A child resource policy: Moving beyond dependence on school and family. Phi Delta Kappan, 68(8): 576-581.

Hendrick, J. (1984). The whole child: New trends in early education. St. Louis: C. V. Mosby.

Hildebrand, V. (1991). Introduction to early childhood education. New York: Macmillan.

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Kaplan, L. (Ed.). (1992). Education and the family. Boston: Allyn & Bacon.

Lefrancois, G. R. (1989). Of children: An introductionto child development (6th ed.). Belmont, CA: Wadsworth.

Lindberg, L. & Swedlow, R. (1976). Early childhood education: A guide to observing. Boston: Allyn & Bacon.

Love, J. M. & Logue, M. E. (1992). Transitions to kindergarten in American schools. Washington, DC: US Department of Education.

Martin, A. (1985). Back to kindergarten basics. Harvard educational review, 55(3), 318-321.

Maxim, George W. (1989). The very young (3rd ed.). Columbus, OH: Merrill.

McNichols, J. C. (1992). The Montessori controversy. New York: Delmar Publishers.

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National Association for the Education of Young Children. (1988). Position statement on standardaized testing of young children 3 through 8 years of age. Washington, DC: National Association for the Education of Young Children.

Oberlander, T. M. (1989). A nongraded, multi-age program that works. Principal, 68(5), 29-31.

Pettygrove, W., Whitebook, M. & Weil, M. (1984). Research report. Beyond babysitting: Changing the treatment and image of child caregivers. Young Children, pp. 14-21.

Public Policy Report (1982). Wanted: Child advocates. Young Children, 37 (6), 54-55.

Ramsey, P. G. (1987). Teaching and learning in a diverse world: Multicultural education for young children. New York: Teachers College Press.

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Seefeldt, C. & Barbour, N. (1990). Early childhood education: An introduction (2nd ed.). Columbus, OH: Merrill.

Stafford, P. L. (1989). Integrated teaching in early childhood education. Starting in the mainstream. White Plains, NY: Longman.

Vold, E. B. (Ed.) (1992). Multicultural education in early childhood classrooms. Washington, DC: NEA.

OLD

SYLLABUS
Pre School Education

EL 353 3 credits

I. INTRODUCTION

This course is designed to help prospective teachers of young children in the preschool years to develop an awareness of themselves; to acquire knowledge of the historical and cultural background of early childhood education; to gain development skills necessary to work with young children and to become skillful evaluating children, the Early Childhood environment, and themselves.

II. COURSE OBJECTIVES

At the completion of this component of the Early Childhood Sequence, each student is:

Terminal Objectives

A. To be aware of one's own personal qualities and how these qualities influence the way they work with young children in the preschool years.

B. To develop a personal philosophy of teaching based on one's values.

C. To be knowledgeable of the theories of development which have influenced the difference in the ways we work with young children.

D. To be knowledgeable of the historical perspective of early education of young children.

E. To be knowledgeable of young children throughout the world and their cultural experiences.

F. To be cognizant of the impact of mainstreaming on the education of preschool children and the preschool educator.

G. To be skillful in observation skills and interpreting what has taken place.

H. To be knowledgeable of appropriate strategies for creating and managing a harmonious learning environment and social atmosphere in early childhood programs.

I. To be aware of ways to organize the learning environment and design meaningful learning experiences for young children.

J. To be skillful in communicating with parents as an essential part of educating young children.

K. To develop skills in working with other teaching personnel in early childhood programs.

Specific Objectives:

A. 1. Understand the concept of a teacher's role and some of the major roles played by teachers of young children in a regular and mainstreamed environment.

2. Understand how a teacher's personal style may influence the ways in which he/she interacts with young children.

3. Understand the kinds of cultural differences and biases of each family, children and teachers.

B. 1. Become aware of one's own values for child development and education.

2. Understand the importance of harmony between a teacher's stated values and actual behavior.

C. 1. Understand how theory and practice help teachers of young children become more knowledgeable about children and how they learn.

2. Become aware of current issues in the field of human development and their implications for early childhood education.

D. 1. Become knowledgable of the historical perspective of early childhood education.

2. Acquire knowledge of different programs in early childhood education today.

3. Understand the cultural heritage of young children in early childhood settings throughout the world.

E. 1. Become aware of the usefulness of observation/participation as a process for understanding young children.

2. Develop a technique for systematically observing young children.

3. Develop skills in teaching young children in individual small group and total group teaching experiences.

F. 1. Know the rallies of classroom management.

2. Develop skill in relating to adults and children in facilitating ways.

G. 1. Develop skill in creating and designing indoor and outdoor physical settings that meet children's needs.

2. Know how early childhood curriculum areas contribute to children's development and approaches to teaching in each area.

3. Understand how learning experience can be related and integrated.

H. 1. Become aware of one's feelings and values about parent involvement.

2. Know skills that will help one to work with parents.

I. 1. Acquire knowledge of all the different personnel in an early childhood environment.

2. Become aware of your relationship with others working with young children.

III. TEXT

Hendrick, Joanne. The Whole Child, Developmental Education for the Early Years, Fourth Edition. Merrill Publishing Company, 1988.

IV. SUGGESTED ACTIVITIES

A. Observing and Participating experiences in kindergarten.

1. Present ways to observe in kindergarten - children, environment, equipment, etc.
2. Observe and participate in the physical environment of kindergarten and become familiar/acquainted with the materials before meeting the children.
3. Observe at least one hour, each two week period - total of six during the semester. A written evaluation of each observation is required.
4. The students are to participate in the kindergarten environment.

B. Teaching Experience

1. Presenting their created story (written and illustrated by each student) to kindergarten.
2. Teaching any part of the kindergarten program - (Gym, Group Meeting, Worktime)
3. At least four experiences working one-on-one with the boys and girls. The students stay all day in kindergarten. Theme examples - something of value and special to you, puzzles, science, creating puppets, reading and writing.

C. Requirements of the Semester

1. Class attendance is required; class participation is required; give of yourself with your ideas, suggestions, thoughts and wanderings; the textbook is your tool, a source - assignments relate to experiences students participate in - including all chapters during the semester; a final exam involves activities/experiences, class discussions, text, children, etc.;

grading depends on the quality of the written and evaluation skills, participation with the children teaching experiences with the individual child as well as whole group etc.

2. Create, write and illustrate a book for young children.

3. Create and design an indoor and outdoor physical environment.

4. Choose three themes/topics and plan for two days of a kindergarten year using the schedule each student is participating in during the semester.

5. Kindergarten Program activities/experiences - "hands on" in music, art, language, skills, computers etc.

V. BIBLIOGRAPHY

A. Books

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"Children Today." U.S. Department of Health, Education and Welfare/Office of Child Development/Children's Bureau; Superintendent of Documents, U.S. Gov. Printing Office, Washington, D.C. 20402.

Early Childhood Research Quarterly. Lilain G. Katz, editor, National Association for the Education of Young Children in cooperation with the ERIC Clearinghouse on Elementary and Early Childhood Education, Ablex Publishing Co.

Intentional Journal of Early Childhood. Published by OMEP. Printed in Toronto, Canada, University of Toronto Press and Ontario Institute for Studies in Education Printing Department.

National Geographic World. National Geographic Society, 17th and M Sts., NW, Washington, D.C. 20036.

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LSC Use Only
Number: _____
Action: _____
Date: _____

UWUCC Use Only
Number: _____
Action: _____
Date: _____

CURRICULUM PROPOSAL COVER SHEET
University–Wide Undergraduate Curriculum Committee

I. Title/Author of Change

Course/Program Title: EL 357 - Pedagogy II
Suggested 20 Character Course Title: _____
Department: Professional Studies in Education
Contact Person: Gail J. Gerlach

II. If a course, is it being Proposed for:

_____ Course Revision/Approval Only
_____ Course Revision/Approval and Liberal Studies Approval
_____ Liberal Studies Approval Only (course previously has been approved by the University Senate)
X Course Description Change

III. Approvals

Gail J. Gerlach — Department Curriculum Committee
Edwin B. Vold — Department Chairperson

_____ College Curriculum Committee
_____ College Dean *

_____ Director of Liberal Studies (where applicable)
_____ Provost (where applicable)

*College Dean must consult with Provost before approving curriculum changes. Approval by College Dean indicates that the proposed change is consistent with long range planning documents, that all requests for resources made as part of the proposal can be met, and that the proposal has the support of the university administration.

IV. Timetable

Date Submitted to LSC: _____
to UWUCC: _____
Semester to be implemented: _____
Date to be published in Catalog: _____

Part II Description of Curriculum Change

Request is for a revised course description which deletes statements about the sequence of Pedagogy I and Pedagogy II.

1. Revision

EL 357 Pedagogy II 3c-01-3 sh

Prerequisite: Junior Status

Principles based on classroom experience will be incorporated into the course. Instruction will include: classroom management skills, integration of computers in the elementary curriculum, contemporary issues in education, the role of research in elementary classroom teaching, and teacher professionalism during and after field experiences.

2. Summary and Rationale

The revision will eliminate the sequence of Pedagogy I (EL 356) and Pedagogy II (EL 357). The course content of Pedagogy II can be taught without depending on the content of Pedagogy I. The elimination of the sequence for Pedagogy I and Pedagogy II will give the department greater flexibility in scheduling of students during the junior year. Without this flexibility, most juniors would have their field experience during the spring semester. This would create an inability to offer a well-supervised junior field experience.

Originally, when these courses were designed, the department planned to change the junior field experience to require less faculty supervision. This has not occurred. The Elementary Education program has been commended for the strength of its field experiences in the initial review of its program by NCATE (National Council for the Accreditation of Teacher Education).

The current course description for EL 357 Pedagogy II includes the identical description as proposed for the revision, except an introductory statement says, "This course is designed to follow Pedagogy I. Selected topics that were introduced in Pedagogy I will be extended. Additional topics will be presented."

Part III Current Syllabi for EL 356 Pedagogy I and EL 357 Pedagogy II are attached

Catalog Description

EL 357 Pedagogy II 3c-01-3 sh

Prerequisite: Junior Status

Principles based on classroom experience will be incorporated into the course. Instruction will include: classroom management skills, integration of computers in the elementary curriculum, contemporary issues in education, the role of research in elementary classroom teaching, and teacher professionalism during and after field experiences.

COURSE SYLLABUS

I. CATALOG DESCRIPTION

EL 356 - Pedagogy I 3 credits

Prerequisites: junior status

Competencies specific to the science of teaching will be introduced in this course. Students will become familiar with the fundamentals of teaching across all content area subject matter at the elementary level. Areas that will be explored include models of teaching, including unit and lesson planning, and creating a classroom environment that is conducive to learning.

II. COURSE OBJECTIVES

This course will be presented in modules. Objectives are specified for each module.

Upon successful completion of this course, the student will be able to:

Models of Teaching

A. demonstrate understanding of several models for teaching which use varying techniques and are based on psychological foundations of the teaching/learning process.

B. demonstrate the ability to select appropriate models for particular learning outcomes.

C. demonstrate competency in planning and teaching using appropriate models to present lesson(s).

Classroom Climate

D. specify conditions deemed desirable because they promote student on-task behavior and facilitate effective and efficient instruction.

E. describe the nature and dynamics of classroom climate as it relates to (1) teacher expectations, (2) motivation, (3) use of time, (4) teacher awareness, (5) modeling, and (6) socioemotional-climate.

II. COURSE OUTLINE

An outline is specified for each module.

Models of Teaching

A. Present and discuss selected models which could include, for example:
   1. Reflective (Donald Cruickshank)
   2. Hunter Model (Madeline Hunter)
   3. Inductive (Hilda Taba)

4. Concept Attainment (Jerome Bruner)
5. Advance Organizer (David Ausubel)

Inherent in the presentation and discussion are the issues of appropriate selection and lesson and unit planning.

B. Students demonstrate ability to select, plan, and teach (a) mini-lesson(s) (video taped) using (an) appropriate model(s).

Classroom Climate

C. Present and discuss the following topics on classroom climate:
   1. Analyzing classroom conditions
      Students study a variety of ways to assess the classroom learning environment.

   2. Teacher expectations
      a. Teacher expectations as self-fulfilling prophecies
      b. Communicating expectations to students
      c. Basic teacher attitudes
      d. Personal and social development of students
      e. Other related issues deemed appropriate for instruction

   3. Motivation
      a. Basic motivational concepts
      b. Intrinsic motivation
      c. Extrinsic motivation
      d. Identifying motivational strategies
      e. Student success relating to motivational strategies

   4. Use of time
      a. Strategies for organizing the instructional day
      b. Organizing the curriculum for effective utilization of instructional time

   5. Teacher awareness
      a. Teacher-pupil interaction
      b. Teacher power and its effect upon student performance
      c. How teacher awareness influences student achievement

   6. Modeling
      a. The teacher as a value communicator
      b. Teaching through modeling

   7. Socioemotional climate
      a. Fostering interpersonal relationships between students in the classroom
      b. Teacher-pupil relationships: social and academic
      c. Communicating empathic understanding
      d. Reality therapy - a dynamic of understanding human behavior

8. Self-esteem
   a. self-esteem and its components
   b. ways to promote self-esteem in pupils

IV. EVALUATION METHODS

The final grade for the course will be a compilation of grades earned for each module. The components will be evaluated as follows:

A. Models of teaching
   (Could be among the following)
   1. quality of written lesson plans
   2. demonstration of attained competencies of teaching (video taped)
   3. written test
   4. summaries of readings

B. Classroom climate
   Students will be given a situational essay in which they will apply course content.

V. REQUIRED TEXTBOOK

Textbook to be selected by individual instructors

VII. BIBLIOGRAPHY

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Joyce, B., & Weil, M. (1986). Models of teaching (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall.

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Classroom Climate

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Borich, G. D. (1992). Effective teaching methods (2nd ed.). New York: Macmillan.

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Eby, J. W. (1992). Reflective planning, teaching, and evaluation for the elementary school. New York: Macmillan.

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Kellough, R. D., & Roberts, P. L. (1991). A resource guide for elementary school teaching: Planning for competence (2nd ed.). New York: Macmillan.

COURSE SYLLABUS

I. CATALOG DESCRIPTION

EL 357 - Pedagogy II 3 credits

Prerequisites: Pedagogy I; junior status

~~This course is designed to follow Pedagogy I. Selected topics that were introduced in Pedagogy I will be extended. Additional topics will be presented.~~ Principles based on classroom experience will be incorporated into the course. Instruction will include: classroom management skills, integration of computers in the elementary curriculum, contemporary issues in education, the role of research in elementary classroom teaching, and teacher professionalism during and after field experiences.

II. COURSE OBJECTIVES

This course will be presented in modules. Objectives are specified for each module.

Upon successful completion of this course, the student will be able to:

Classroom Management Skills

A. define the term "classroom management" to differentiate the instructional and managerial dimensions of teaching, and emphasize the importance of effective classroom management.
B. to analyze existing classroom conditions and to identify managerial problems, potential managerial problems, and desirable conditions.
C. To identify managerial strategies believed to be effective.

Integration of Computers in the Elementary Curriculum

D. apply computer-assisted instruction to the curriculum.
E. summarize current research related to computer-assisted instruction
F. evaluate software for instructional use.
G. apply telecommunications to the curriculum.

Contemporary Issues in Education

H. discuss selected contemporary topics in education and their implications for instruction.

I. identify sources of information that a teacher can utilize to become aware of current issues.

Research as a Tool for Teachers

J. appreciate the importance of research as a basis for teaching.
K. understand the basic concepts of classroom action research.
L. discuss the basic concepts of action research design.
M. describe a classroom problem from an action research perspective.
N. design a classroom action research project to address a hypothetical classroom problem.

Teacher Professionalism

O. discuss teacher professionalism as it relates to the following issues: ethical behavior, appropriate dress; interactions with school personnel (aide(s), secretary(ies), principal(s), teachers, custodian(s), and the cooperating teacher); interactions with parents; and, assumption of responsibilities, including taking initiative.

III. COURSE OUTLINE

An outline is specified for each module.

A. Classroom Management Skills

Resource persons, such as classroom teachers and school administrators should be utilized for presentations in this module.

1. organizing your classroom
   a. physical space
   b. rules and procedures
   c. planning, organizing, and teaching
2. maintaining good student behavior
   Discipline approaches: LEAST; Assertive Discipline; Control Theory in the Classroom
3. evaluating your classroom - organization and management

B. Integration of Computers in the Elementary Curriculum

1. computer-assisted instruction, including current research
2. software evaluation
3. telecommunications in the curriculum

C. Contemporary Issues in Education

One hour will be devoted to each contemporary issue. The topics will change each semester as new issues are presented in the literature. Sample topics are cooperative learning and students at risk.

D. Research as a Tool for Teachers

1. Research as a tool for teachers.
   Basic concepts of action research.
   Designing classroom action research.

2. Analysis of classroom problems.
   Using action research to address classroom problems.

E. Teacher Professionalism

Resource persons will present issues in a round table format. These persons can include cooperating teachers, principals, parents, and former student teachers. Topics related to teacher professionalism will be discussed. These can include: ethical behavior, appropriate dress; interactions with school personnel, such as aides(s), secretary(ies), principal(s), teachers, custodian(s) and the cooperating teacher; interactions with parents; assumption of responsibilities, including taking initiative.

IV. EVALUATION METHODS

The final grade for the course will be a compilation of grades earned for each module. The modules will be evaluated as follows.

Classroom Management Skills

Students will be given a situational essay in which they will apply course content.

Integration of Computers in the Elementary Curriculum

A. quiz - application of computer-assisted instruction and research
B. quality, completeness of software evaluation
C. quality of discussion of the application of telecommunication to the curriculum

Contemporary Issues in Education

A. quality of summary of and reaction to one article about a contemporary issue in elementary education

Research as a Tool for Teachers

The primary basis for evaluation for the objectives covered under this topic will be a 2-3 page action research plan comprised of the following components:

1. A rationale for the action research plan.
2. A problem analysis statement.
3. A problem diagnosis statement.
4. A description of the proposed diagnosis verification procedures.
5. A description of the proposed remediation procedures.
6. A description of the evaluation procedures.

This paper will be evaluated for evidence that the objectives listed above have been met.

Teacher professionalism

1. evidence of understanding through discussion

V. REQUIRED TEXT

Textbook to be selected by individual instructors

VII. BIBLIOGRAPHY

Classroom Management Skills

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Integration of Computers in the Elementary Curriculum

Bennett, D. A., & King, D. T. (1991). The saturn school of tomorrow. Educational Leadership, 48(8), 41 - 44.

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Roblyer, M. D. (1988). The effectiveness of microcomputers in education: A review of the research from 1980-1987. T.H.E. Journal, 16(2), 85 - 89.

Roblyer, M. D., Castine, W. H., & King, F. J. (1988). Computer applications have "undeniable value," research shows. Electronic Learning, 8(1), 38, 40.

Salpeter, J. (1988). Have it your way: How software publishers responded to your needs. Classroom Computer Learning, 8(4), 34 - 39.

Scrogan, L. (Ed.). (1988). The OTA report: New technologies are making a difference. Classroom Computer Learning, 9(2), 33 - 39.

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Contemporary Issues in Ecucation

Cooperative Learning

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Slavin, R. E. (1991). Synthesis of research on cooperative learning. Educational Leadership, 48(5), 71 - 82.

Students at Risk

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Cruickshank, D. R. (1985). Profile of an effective teacher. Educational Horizons, Winter, 8-14.

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Teacher Professionalism

Bolin, F. S. (1988). Helping student teachers think about teaching. Journal of Teacher Education, 39(2), 48 - 54.

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NO CHANGE IN COURSE - JUST
A TITLE CHANGE.

EE 315

Course Syllabus

Development and Learning Through Play

(3 credits)

Spring, 1993

Course Description

Provides early childhood educators with the knowledge and skills necessary to use children's play behavior as the foundation for developmentally appropriate practice and creative expression. Emphasis is on the characteristics, theories and stages of play as they relate to the social, emotional, physical and intellectual growth of young children, infancy through age eight. Students will observe children at play and design, implement, and evaluate child-centered learning activities that encourage creative expression during the field-based component.

Instructor

Dr. Mary Renck Jalongo, Ph.D.
Professor of Education
Office: 312 Davis Hall
Telephone: (412) 357-2417 (office)
(412) 349-5423 (home)

Required Textbook:

Isenberg, Joan P. & Jalongo, M. R. (1993). Creative expression and play in early childhood education. New York: Macmillan.

Recommended Supplemental Textbook:

Hughes, F. (1991). Children, play and development. Boston, MA: Allyn & Bacon.

Course Objectives

The student will:

- define creativity and the criteria used to identify creative behavior
- recognize and appreciate how play is a vehicle for children's creative expression
- describe creative thought processes
- discuss the major theoretical perspectives on creativity and play
- identify those classroom conditions that foster creative expression in young children
- understand and explain the teacher's role in providing for play and creative expression in early childhood classrooms
- identify the four essential characteristics of play behavior

- differentiate between play behavior and other types of human behavior (e.g. exploration, work).
- summarize the history of play in the Western world
- list and explain both classic and contemporary theories about play
- explain the value of play during three distinct phases of development: infant/toddler, preschool, and school age and identify suitable play materials and activities for each stage
- list and explain the benefits of creative expression and play for the special populations, including: culturally diverse groups, children with disabilities, and high achieving/low achieving children

(See also specific chapter-by-chapter objectives in the textbook)

COURSE CALENDAR

January 19 INTRODUCTION TO THE COURSE

The Value of Creative Expression and Play in Early Childhood

In Class: Play, Toys, and Imaginary Companions During Early Childhood.

ASSIGNMENTS:

Read Chapter 1, Creativity and the Young Child

Make the arrangements to conduct one interview OR one observation and submit your typewritten papers on FEBRUARY 4. You may select one interview and one observation from Chapters 1-4.

1 OBSERVATION and 1 INTERVIEW due by February 4th.

January 21 CREATIVITY

Defining Creativity
Modes of Thinking (Divergent/Lateral, Convergent/Vertical)
Stages in the Creative Process
Identifying Creativity
Unlocking Creative Potential
Creativity, Teachers, and School Curricula
Special Populations
    Culturally Diverse Groups
    Children With Handicapping Conditions
    High Achieving/Low Achieving Children

Interview: The Creative Family
Observation: Modes of Thought
Controversy: Why Not Every Child Gifted and Talented?
Research Highlight: Teachers' Judgments of Preschoolers' Creativity

ASSIGNMENT: Read Chapter 2 The Role of Play it the Early Childhood Curriculum

January 26 and 28 PLAY

What is Play?
Why is Play Important?
How Does Play Develop?
Why Do Children Play?
Theoretical Perspectives
Teachers' Roles and Responsibilities
Special Populations

Interview: A Kindergarten Teacher's Commitment to Play
Observation: Theoretical Perspectives Reflected in Play
Controversy: Superhero Play in the Classroom
Research Highlight: Boys and Girls: Superheroes in the Doll Corner

ASSIGNMENT: Read Chapter 3, Art in the Early Childhood Curriculum

February 2 * QUIZ on Chapters 1 and 2 *

ASSIGNMENT: Read Chapters 3, 4 and 5

February 4 and 9 ART

Theoretical Framework
Critical Issues the Arts
Child-Centered Experiences
Integrating the Arts Into Subject Areas
Special Populations

Interview: Teacher Beliefs About Child-Initiated Art Activities
Observation: Pre-Drawing and Breaking Stereotypes in Art
Children's Responses to Music
Controversy: How Basic is Art?
Research Highlight: The Effect of Materials on Children's Representations of the Human Form

February 11 MUSIC

Theoretical Framework

Interview: Children's Favorite Songs
Observation: Children's Responses to Music
Controversy: Is Musicality Natural?
Research Highlight: The Music Laboratory

February 16 DRAMA

Theoretical Framework

Observation: Values of Creative Drama
Controversy: Drama as Creative Expression or Performance?
Research Highlight: Playing About a Story: Its Impact on Comprehension

ASSIGNMENT: Read Chapter 6, Planning and Arranging the Creative Environment

February 18 CREATIVE CLASSROOM ENVIRONMENTS

Planning and Arranging the Creative Environment

Theoretical Framework
Arranging the Indoor Environment
Arranging the Outdoor Environment
Teachers' Roles and Responsibilities

Interview: How Teachers Plan Their Classroom Environments
Observation: Evaluating a Playspace
Research Highlight: Literacy During Play

ASSIGNMENT: Read Chapter 7, Materials for Creative Expression and Play

February 23 * QUIZ on Chapters 3, 4, and 5 *

February 25 MATERIALS

Materials for Creative Expression and Play

Theoretical Framework -- History of Toys and Playthings
Types of Materials
Developmentally Appropriate Materials
Blocks, Games, and Child-Constructed Games

Interview: Play Materials: A Cross-Cultural Perspective
Observation: Organized Sports Activities and the Young Child
Controversy: War Toys and War Play
Research Highlight: Clay in the Classroom

ASSIGNMENT: Read Chapter 8 Guiding Young Children's Creative Growth and Communicating With Families

Conduct one more interview OR one more observation, selecting from among those at the end of Chapters 5-9. Have a typewritten paper ready to report to the class by MARCH 4.

March 2

Guiding Young Children's Creative Growth and Communicating With Families

Theoretical Framework
Adult-Child Interaction Styles

Developmentally Appropriate Guidance
Understanding Children's Conflicts
Strategies for Guiding Creative Behavior
Special Populations

Interview: Levels of Concern About Communicating with Families
Controversy: Home-School Partnerships: Why Foster Them?
Research Highlight: Continuity/Discontinuity Between Home and School Education

ASSIGNMENT: Read Chapter 10, Divergent Thinking, The Well-Integrated Personality and the Twenty-First Century

March 4 **** QUIZ on Chapters 6, 7, and 8 ***

March 9 and 11

Divergent Thinking, the Well-Integrated Personality and the Twenty-first Century

Theoretical Framework
Creative Teaching
An Agenda for the Future of Creative Expression and Play
Special Populations

Interview: The Ideal Educator

Observation: Do You Support Creative Expression and Play? A Self-Assessment

Controversy: Are Our Lesson Planning Methods Outmoded?

Research Highlight: Expert and Novice Practice

March 13-21 *** SPRING BREAK ***

March 23 QUIZ on CHAPTERS 9 and 10

April-May IN THE FIELD

GRADE COMPUTATION

4 quizzes, 10% each	40%
2 interviews and observations, 10% each	20%

Play Theme (to be completed in the field) 40%

These reports should be typewritten and include:
1) a brief rationale for the theme selected, 2) a description of creative strategies used to introduce the theme to the children, 3) a description of sociodramatic play props, and 4) observational field notes that illustrate your intervention strategies and give verbatim examples of children's dialogue during the play experiences over a period of at least several days.

IMPORTANT DATES

Quiz 1 (Chapters 1 & 2)· FEB. 2, Quiz 2 (Chapters 3, 4 & 5) FEB. 18, Quiz 3 (Chapters 6, 7 & 8) MARCH 4, Quiz 4 (Chapters 9 & 10) MARCH 23

One interview or one observation from Chapters 1-4 due FEB. 4

One interview or one observation from Chapters 5-9 due MARCH 4

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EE 220

LANGUAGE DEVELOPMENT AND CHILDREN'S LITERATURE
(3 credits)

Fall, 1992

Course Description:

Language Development and Children's Literature for will include the study of children's language acquisition and children's literature within the context of a developmentally appropriate language arts curriculum, preschool through the primary grades. Strategies for developing children's linguistic competence and integrating literature throughout the early childhood program will be emphasized. Observations, interviews, and teaching experiences are an integral part of the course.

Instructor: Dr. Mary Renck Jalongo, Ph.D.
Professor of Education
Professional Studies in Education
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(412) 357-2400/2401 (to leave a message)
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Required Textbooks:

Jalongo, M. R. (1992). Early childhood language arts. Boston, MA: Allyn & Bacon.

Course Objectives:

The student will:

- demonstrate knowledge of language development theory
- define phonology, grammar, syntax, semantics and pragmatics
- identify developmentally appropriate practices in the teaching of language arts for young children, infancy through the primary grades
- collect and analyze samples of children's speech, emergent reading, drawings and writings
- demonstrate understanding and appreciation of children's linguistic differences
- identify common speaking difficulties of young children and remediation strategies
- plan listening activities which promote higher level listening skills
- demonstrate mastery in teaching manuscript and cursive handwriting

- plan and teach literature-based lessons that reflect knowledge of children's literature and language development
- explain the general sequence for emergent and early reading behavior in young children
- describe the major controversies in early literacy instruction
- identify ways that parents can be encouraged to promote children's language development
- list several home-school communication strategies
- identify the elements of poetry which appeal to young children
- understand how children's narrative abilities develop
- learn to use storytelling techniques which build upon young children's narrative skills
- understand how to develop children's speaking abilities
- demonstrate knowledge of the use of puppetry, creative dramatics and other types of enactment
- apply knowledge of children's developmental characteristics to the teaching of reading, writing, speaking, and listening
- explain how to manage a developmentally appropriate language arts program for young children
- identify the key classroom management and assessment issues in a child-centered language arts program

Course Requirements:

1. Participation in in-class group activities.

2. <u>In the Field Textbook Assignments</u>. Conduct the In the Field assignments as noted on the course outline and report findings to the class. These may be done as field notes and handwritten. Keep the notes in your folder. Evaluation will be based on the quality of your report in class.

3. <u>Literature Extension Activities</u>. Select 15 outstanding picture books from those books listed in your text (see Appendix D) or approved by the instructor. For each book title, design a creative way of introducing the book, practice a strategy for presenting the book, and plan at least four extension activities. (Examples will be presented in class). These four extension activities must: 1) assess children's prior knowledge; 2) provide for active participation from children; 3) develop children's reading, writing, and speaking abilities; 4) foster children's creative expression; and 5) reflect a thorough understanding of developmentally appropriate practice. This assignment must be typed, double spaced, and if printed on a computer, printed as near letter quality as possible. You may work together with other student(s) in the class on this assignment if you wish.

4. <u>Field Experience</u>. Use a minimum of five of the literature extension activities out in the field.

5. <u>Quizzes</u>. Complete four quizzes as scheduled.

6. Handwriting Test You will be required to learn how to write the alphabet in manuscript (printing) and in cursive (handwriting) in the writing model provided in your textbook. This test will be on a pass/fail basis.

Grade Computation:

In the Field Assignments and in class reports	30%
Quizzes (all scheduled on THURSDAYS)	40%
literature extension activities (15 total)	30%

Special Instructions for Submitting Assignments:

Please use a cardboard folder with three metal fasteners to organize and hand in your assignments. Put the most recent work last. Use a felt tip marker to print your name in large block letters on the front and be sure to include your section number. Bring your syllabus, folder and textbook to class each day. After all of the written assignments are completed, your folders will be returned to you.

Course Calendar

Thursday September 3	Introduction to the course Communication and Language
Assignment:	Read Chapters 1 and 2 Language Acquisition and Oracy and Literacy in Early Childhood Education (pp. 1-42). Complete In the Field, A Personal Profile of Literacy Development (p. 39).

Tuesday September 8 and Thursday September 10	Language Development A Psycho-Sociolinguistic Theory of Language Development Oral Language and Written Language Private Speech
Focus On:	Private Speech: Children Talking to Themselves (p. 38)

In Class:	Reports on In the Field assignment from p. 39
Assignment:	Review Charts of Language Development Read Chapter 3, The Child-Centered Language Arts Curriculum (pp. 43-62).
Film:	Baby Talk

Tuesday September 15	Examining Instructional Assumptions The Child-Centered Classroom How Teachers' Assumptions Affect Curriculum Instructional Strategies Philosophy-Reality Conflicts
Focus On:	Classroom Management in a Child-Centered Language Arts Classroom
Assignment:	Read Chapter 4, Listening and the Young Child (pp. 63-92 Complete In the Field Really Listening to Children, p. 86

September 17	QUIZ on Chapters 1 and 2

September 22	Defining Listening Influences on Listening Behavior Guidelines for Developing Listening Abilities Listening Activities
Focus On:	Teachers Communicating So Children Will Listen, p. 84
In Class:	Reports on In the Field from p. 86
Assignment:	Read Chapter 5, Speaking Abilities (pp. 91-122)

Thursday September 24	Speaking The Importance of Oral Language Communicative Competence Unique Features of Children's Speech The Linguistically Different Child

Designing a Talk Environment
Using Creative Drama to Enhance Speaking
Choral Speaking

Assignment: Complete In the Field, Conducting a Semantically Contingent Conversation, p. 117
Read Chapter 6, Narratives and Storytelling (pp. 123-160

Tuesday and Thursday
September 29 and October 1
Narratives and Storytelling
Development of Narrative Abilities
Teachers as Storytellers
Ways of Presenting Stories
Generating Group Stories

In Class: Ways of Presenting Stories

Film: Caroline Feller Bauer

THURSDAY
October 8 QUIZ on Chapters 3, 4, 5

Assignment: Read: Chapter 7, Picture Books and the Literature-Based Curriculum (pp. 161-196)
Complete In the Field, Books Children Love, p. 191

October 13 and 15
What is Literature?
The Benefits of Literature
How to Use Literature in the Classroom
Literature-Based Curriculum
Benefits of Literature for the Teacher

Focus On: Understanding Picture Books

Film: Let's Read a Story

Tuesday
October 20 Orientation in the field

Thursday
October 22
Developing Literature-Based Activities in class workshop

Film: "And What Else?"

Assignment: In the Field Children's Concepts About Drawing and Writing, p. 234

Have three books selected, read, and the extension activities outlined by the end of class
Be prepared to share them

Tuesday
October 27 Field Assignment

Thursday
October 29 Multiple Symbol Systems of Children
Developmental Stages in Drawing and Writing
Guidelines for Supporting Children's Composing Processes
Drawing and Writing Activities

In Class: Present Literature Activities

Focus On: Invented Spelling

Film: Reading Rainbow

Assignment: Read Chapter 8, Drawing and Writing: Composing Processes (pp. 199-238)

Tuesday
November 3 Field assignment

Assignment: Read Emergent and Early Reading (pp. 239-268)

November 5
Thursday Emergent and Early Reading
What is Reading?
Developmental Sequence
Teaching Strategies
Activities

Focus On: Questions Parents Ask About Reading

Assignment: Read Chapter 10, Parents, Teachers, and the Child's Growth in Language (pp. 269-289)

Tuesday
November 10 — Field Assignment

Thursday
November 12 — QUIZ on Chapters 7 and 8

Assignment: — 5 more literature-based

Tuesday
November 17 — Field assignment

Thursday
November 19 — Film Festival of Children's Books

Tuesday
November 24 — Field assignment

Thursday
November 26 — THANKSGIVING HOLIDAY

Tuesday
December 1 — Field Assignment

Thursday
December 3 — Communicating With Parents
Parental Roles Prior to School
School-Home Activities

Focus On: — Conferencing

Assignment: — Read Chapter 11, Assessment Issues and Alternatives (pp. 291-315)

Tuesday
December 8 — Field assignment

Thursday
December 10 — What is Assessment?
Purposes for Assessment
Young Children as Test-Takers

Portfolio Assessment

Focus On: Explaining Assessment Issues to Parents

Week of December 14th (during scheduled exam time)
Final QUIZ on chapters 9, 10, and 11

Recommended Readings

Agnew, A. T. (1982). Using children's dictated stories to assess code consciousness. The Reading Teacher, 35, 450-454.

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Applebee, A. (1978). A child's concept of story: Ages two to seventeen. Chicago, IL: University of Chicago Press.

Askov, E. N. & Peck, M. (1982). Handwriting. In H. E. Mitzel, J.H. Best & W. Rabinowitz (Eds.) Encyclopedia of educational research. New York: The Free Press.

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Barton, B. (1986). Tell me another. Portsmouth, NH: Heinemann.

Becher, R. M. (1985). Parent involvement and reading achievement: A review of research and implications for practice. Childhood Education, 62(1), 44-50.

Bissex, G. (1981). Growing writers in classrooms. Language Arts, 58(7), 785-791.

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Bodel, M. (1987). Taking the trauma and tedium out of class plays. Learning '89, 16, 76-79.

Bredekamp, S. (1991). Developmentally appropriate practice in early childhood programs serving children from birth through age 8. Washington, DC: National Association for the Education of Young Children.

Britton, J. (1970). Language and learning. Coral Gables, FL: University of Miami Press.

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Bromley, K. (1992). Language arts: Exploring connections. Boston: Allyn & Bacon.

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Burke, E. (1990). Literature for the young child. Boston, MA: Allyn & Bacon.

Butler, D. (1975). Cushla and her books. Boston: The Horn Book.

Calkins, L. M. (1986). The art of teaching writing. Portsmouth, NH: Heinemann.

Calkins, L. M. (1983). Lessons from a child: On the learning and teaching of writing. Exeter, NH: Heinemann.

Calkins, L. M. (1980). When children want to punctuate: Basic skills belong in context. Language Arts, 57(5), 567-573.

Cambourne, B. (1988). The whole story. Sydney, Autralia: Ashton/Scholastic.

Choate, J. S. & Rakes, T. A. (1987). The structured listening activity: A model for improving listening comprehension. The Reading Teacher, 41, 194-200.

Chomsky, N. (1988). Language and mind. New York, NY: Harcourt Brace and World.

Cliatt, M. J. P. & Shaw, J. M. (1988). The storytime exchange: Ways to enhance it. Childhood Education, 64 (5), 293-298.

Cochran-Smith, M. (1984). The making of a reader. Norwood, NJ: Ablex.

Combs, M. (1987). Modeling the reading process with enlarged texts. The Reading Teacher, 40, 422-426.

Combs, C. E. (1988). Theatre and drama in education: A laboratory for actual, virtual or vicarious experience Youth Theatre Journal, 2 (3), 9-10.

Crowell, D. C.; Kawakami, A. J. & Wong, J. L. (1986). Emergent literacy: Reading-writing experiences in a kindergarten classroom. The Reading Teacher, 40(2), 144-149.

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De Stefano, P.; Dole, J. A. & Marzano, R. J. (1989). Elementary language arts. New York: Wiley.

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Doake, D. (1986). Learning to read: It starts in the home. In D. R. Torrey & J. E. Kerber (Eds.) Roles in literacy learning: A new perspective (pp. 2-9). Newark, DE: International Reading Association.

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Fields, M. & Lee, D. (1987). Let's begin reading right. Columbus, OH: Merrill.

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Gentry, J. R. (1981). Learning to spell developmentally. The Reading Teacher, 34(4), 378-381.

Genishi, C. & Dyson, A. H. (1984). Language assessment in the early years. Norwood, NJ: Ablex.

Gillespie, J. T. & Naden, C. J. (1990). Best books for children: Preschool through middle grades (4th ed.). New York: Bowker.

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Hall, N. (1987). The emergence of literacy. Portsmouth, NH: Heinemann.

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Heath, S. B. (1982). Ways with words. New York: Cambridge University Press.

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Honig, A. S. (1982). Language environments for young children: Research in review. Young Children, 38(1), 56-67.

Huck, C.; Hepler, S. & Hickman, J. (1987). Children's literature in the elementary school. Glenview, IL: Scott Foresman.

Hunt, T. & Renfro, N. (1982). Puppetry in early childhood education. Austin, TX: Nancy Renfro Studios.

Jacobs, L. (1990). Listening to literature. Teaching K-8, 20(4), 34-37.

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Jalongo, M. R. (1991). Strategies for developing children's listening skills. Bloomington, IN: Phi Delta Kappa. (Fastback # 314).

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Norton, D. E. (1991). Through the eyes of a child: introduction to children's literature. Columbus, OH: Merrill.

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Ogbu, J. U. (1980). Literacy in subordinate cultures: The case of Black Americans. Paper delivered at Library of Congress Conference on Literacy. Washington, DC.

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Plourde, L. (1989). Teaching with collections. Young Children, 44(3), 78-80.

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Richgels, D. (1987). Experimental reading with invented spelling (ERIS): A preschool and kindergarten method. The Reading Teacher, 40(6), 522-529.

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Sebesta, S. (1989). The story is about you. In S. Hoffman & L. Lamme (Eds.). Learning from the inside out: The expressive arts (pp. 22-28). Wheaton, MD: Association for Childhood Education International.

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Weaver, C. (1989). In C. Weaver & P. Groff (1989). Two reactions to the Report Card on Basal Readers. Bloomington, IN: ERIC Clearinghouse on Reading and Communication Skills.

Weiss, M. J. & Hagen, R. (1988). A key to literacy: Kindergarteners' awareness of the functions of print. The Reading Teacher, 41(6), 574-578.

Wells, G. (1990). Creating the conditions to encourage literate thinking. Educational Leadership, 47, 13-17.

Wells, G. (1986). The meaning makers: Children learning language and using language to learn. Portsmouth, NH: Heinemann.

White, D. (1984). Books before five. Portsmouth, NH: Heinemann. (originally published 1954).

Yaden, D. (1988). Understanding stories through repeated read-alouds: How many does it take? The Reading Teacher, 41(6), 556-560.

This course requirement can now be fulfilled through successful completion or by competency exam.

COURSE SYLLABUS

I. CATALOG DESCRIPTION

EX 300 Education of the Exceptional in the Regular Classroom 3 credits

Prerequisites: For Non-Special Education Majors Only

Surveys traits, needs. problems. and behavior patterns of the exceptional person and indicates methods and considerations for the regular classroom teacher while encountering the exceptional person in his/her classroom. Legal rights of the exceptional are stressed and contributions of the disabled to society are presented. Implications regarding parenting of exceptional children and youth are included.

II. COURSE OBJECTIVES

Following instruction the student will demonstrate, through verbal discussion and in writing, that he/she has a working knowledge of:

1. the history and development of education for the exceptional
2. the law and services available for exceptional citizens, with emphasis on PL 94-142 and PL 99-457
3. the foundations of effective instruction for the exceptional
4. critical diagnostic signs for referral of children
5. how various disabilities may affect the feelings, interactions and expectations of the exceptional
6. effective teaching strategies for the eight major categories of exceptionality.

III. COURSE OUTLINE

A. Introduction To The Class

B. The Foundation For The Education of Students with Special Needs

C. The Law and Services for Exceptional Students

D. Effective Instruction

E. Feelings, Expectancies, and Interactions

F. Teaching Students who are Hearing Impaired

G. Teaching Students who are Visually Impaired

H. Teaching Students who are Orthopedically or Health Impaired

I. Teaching Students who have Speech or Language Disorders

J. Teaching Students who are Mentally Retarded

K. Teaching Students with Learning Disabilities

L. Teaching Students with Behavior Disorders

M. Teaching Students who are Gifted

IV. EVALUATION METHODS

There will be three examinations during the semester and a comprehensive final examination during final examination period. In addition, there will be daily vocabulary quizzes based upon the terminology of education in general and Special Education in particular.

To arrive at the final grade for each enrollee, the instructors will scrutinize the cumulative total points of all current students. Letter grades will be determined, then, by placing the total points earned by all students in an arrangement of "high" to "low". All letter grades will be based on the highest number of <u>obtained</u> points (not <u>possible</u> points), according to the following:

A. The range of A's will be considered to be within the area of seven per cent (7%) of the highest number of <u>obtained</u> points.

B. The range of B's will be considered to be within the area between seven per cent (7%) and fourteen per cent (14%) of the highest number of <u>obtained</u> points.

C. The range of C's will be considered to be within the area between fourteen per cent (14%) and twenty-one per cent (21%) of the number of <u>obtained</u> points.

D. The range of D's will be considered to be within the area between twenty-one per cent (21%) and twenty-eight per cent (28%) of the highest number of <u>obtained</u> points.

E. F's will be assigned to students whose <u>obtained</u> points are lower than the point indicative of the lowest D.

It is hoped that it can be seen that the employment of such a grading system allows for everyone in the class to earn A's, yet it permits flexibility in the event that a student enrolls in the course without the intention of completing the requirements of the course conscientiously.

V. REQUIRED TEXTBOOKS, SUPPLEMENTAL BOOKS AND READINGS

Required Reading: Gearheart, B.R., Weishan, M.W., & Gearheart, C.J., (1988). The exceptional student in the regular classroom (4th ed.). Columbus, OH: Merrill.

VI. BIBLIOGRAPHY (Suggested Reading)

Affleck, J.Q., Lowenbraun, S., & Archer, A. (1980). Teaching the mildly handicapped in the regular classroom (2d ed.). Columbus, OH: Merrill.

Blankenship, C. & Lilly, S.M. (1981). Mainstreaming students with learning and behavior problems: Techniques for the classroom teacher. New York: Holt, Reinhart and Winston.

Bullock, L.M. & Hook, P.P. (1982). Appropriate education for everybody. Minneapolis, MN: Burgess.

Glass, R.M., Christiansen, J., & Christiansen, J.L. (1982). Teaching exceptional students in the regular classroom. Boston, MA: Little, Brown.

Gloeckler, T. & Simpson, C. (1988). Exceptional students in the regular classroom: Challenges, services, and methods. Mountain View, CA: Mayfield.

Lewis, R.B., & Doorlag, D.H. (1987). Teaching special students in the mainstream (2d ed.). Columbus, OH: Merrill.

Morsink, C.V. (1984). Teaching special needs students in regular classrooms. Boston, MA: Little, Brown.

Also see, "Other Books of Interest" in the text, page 389.

I. CATALOG DESCRIPTION

SC 101 Fundamentals of Physics **2.5 credits**
2 lecture hours
2 lab hours
(2c-2l-2.5sh)

Prerequisite: Instructor Permission

A conceptual course in physics for the non-science major. High school physics is not a prerequisite. Class and lab presentations concentrate upon dispelling naive concepts and developing a better understanding and appreciation of the physical world. The topics of motion, heat, light, sound, electricity, magnetism, and the nucleus are presented in context with our everyday experiences.

II. COURSE OBJECTIVES

1. To develop an understanding of the role of physics in describing the phenomena of nature.
2. To provide the necessary experiences in the laboratory so that the processes of observation, classification and generalization may be used.
3. To be able to explain some of the more common natural phenomena in terms of the physical processes involved .
4. To be able to use mathematics and graphical techniques to arrive at numerical answers for scientific problems.
5. To inculcate an attitude of appreciation for the importance of science in modern society.
6. To furnish a factual background as a foundation for making intelligent judgments concerning the worth of the applications of science.
7. Provide an understanding of some of the "great moments" in the history of physics and the individuals, including women and minorities, responsible for them.
8. To use lectures, demonstrations, films and other audio-visual aids to illustrate physical principles and develop a knowledge of them.
9. To use homework assignments and outside readings to broaden the student's background.

III. COURSE OUTLINE **25 lectures total**

A. Mechanics

1. Kinematics - Galileo (1.5 lectures)
   a. Displacement, Velocity, Acceleration
   b. Free Fall and Air Resistance

2. Dynamics - Newton (2 lectures)
    a. Newton's Laws of Motion - Inertia, Force, and Action-Reaction
    b. Impulse-Momentum
    c. Friction
3. Nonlinear Motion (1 lectures)
    a. Projectiles
    b. Circular motion
4. Energy (2 lectures)
    a. Work and Power
    b. Potential and Kinetic Energies
    c. Simple Machines
    d. Conservation of Energy
5. Gravity and Satellite Motion (.5 lectures)

B. **Properties of Matter** (3 lectures)
1. Atomic Nature of Matter
2. Solids and Density
3. Liquids - Buoyancy in Liquids, Sink and Float
4. Gases and Buoyancy

C. **Heat** (2.5 lectures)
1. Temperature, Heat, and Expansion
2. Heat Transfer - Conduction, Convection, and Radiation
3. Change of State
4. Heat Energy - Sources and Uses

D. **Sound** (2 lectures)
1. Vibrations and Waves
2. Sound, Music, and Hearing

E. **Electricity and Magnetism** (2.5 lectures)

1. Static Electricity
2. Current Electricity and Circuits
3. Electricity and the Body
4. Magnetism
5. Electromagnetic Induction

F. **Light** (3 lectures)

1. Properties of Light
2. Reflection and Mirrors
3. Refraction and Lenses
4. Vision and Color
5. Dispersion and Scattering

G. **Light Waves** (.5 lectures)

1. Interference and Diffraction
2. Polarization

H. **Light Emission** (.5 lectures)

1. Incandescence
2. Fluorescence
3. Phosphorescence

I. **Quantum Physics** (1 lecture)

1. Discovery of the Nucleus
2. Spectra
3. Energy levels

J. **The Nucleus and Radioactivity** (2 lectures)

1. X-Rays and Radioactivity
2. Radiation
3. Isotopes
4. Half-life and Decay
5. Radiation and the Body

K. **Fission and Fusion** (1 lecture)

1. Fission and Reactors
2. Fusion and the Stars

IV. EVALUATION METHODS

The final grade for the course will be determined as follows:

50% TESTS - 3 hourly exams consisting of multiple choice, true-false, matching and short essay - 75 points each, and a final exam of the same format for 75 points. (300 points)

16.7% QUIZZES - Ten 10-point quizzes given during the first lecture of 10 of the weeks. (100 points)

33.3% LAB PERFORMANCE - Two lab presentations at 46 points each (92), 8 lab evaluations at 6 points each (48), and 4 general, mathematical labs at 15 points each (60). (200 points)

V. REQUIRED TEXTBOOKS, SUPPLEMENTAL BOOKS, AND READINGS

Textbook: Hewitt, Paul G., Conceptual Physics, 6th Edition, Scott Foresman, 1989

Additional readings are required for the laboratory reports (both oral and written). These books will be determined by the two concept reports' titles (there are 24 concept areas from which to choose). They can consist of content area texts, biographies of noted physicists, general readings on current technology from sources such as magazines, newspapers, etc.

VI. SPECIAL RESOURCE REQUIREMENTS

In the development of their laboratory presentations, students will be required to provide much of the materials needed for the demonstrations and/or hands-on activities. These will consist of common, inexpensive, everyday "nuts-and-bolts" items found around the home or readily available at local stores.

There is no lab fee associated with this course.

VII. BIBLIOGRAPHY

Victor, Edward, Science for the Elementary Schools 2nd thru 6th Editions

Pine, Ronald, Science and the Human Prospect.

American Institute of Physics, Operation Physics Course Materials, 13 areas of Physics

SYLLABUS ADDENDUM

SC 101 - Fundamentals of Physics - Laboratory

I. LAB OBJECTIVES

1. To promote an understanding of the physical world through the formal investigation of the concepts of physics.

2. To make the student a competent vehicle to disseminate this information to those around him/her.

3. To expose the student to the methodologies of concept development through the manipulation of equipment via demonstrations and/or hands-on activities.

4. To remove the stigma of "intimidation" by the subject of physics.

5. To develop an ability in the student to "improvise" that which is needed to produce effective demonstrations and/or hands-on activities.

6. To replace 8 of the traditional 12 one-concept, quantitative investigation type labs with a non-traditional multiple concept development lab accomplished through individual student presentations.

7. To require individual student presentations that must be developed through referenced investigations, resulting in a written report following a prescribed format.

8. To require that the student presentations contain sufficient demonstrations/hands-on activities that will properly reinforce the concept being developed, utilizing "nuts-and-bolts" apparatus that can be found in their everyday environment.

9. To require that the students present their concept development as an oral presentation before their peers and instructor, while being evaluated by both.

10. To require 4 multi-concept, traditional labs be performed to develop the use of data taking and analysis as a means of making sound conclusions based upon observations and data.

11. To require that the students utilize the processes of science for the purpose of making sound judgements and decisions concerning physical situations.

12. To require an environment that supports cooperative learning among the members of each group, insuring contributions from all who participate.

COURSE SYLLABUS

I. CATALOG DESCRIPTION

SC 102 Fundamentals of Chemistry

2.5 credits
2 Lecture hrs.
2 Lab hrs.

2c-2l-2.5 s.h.

Prerequisites: Instructor Permission

A survey of chemical principles and concepts. The nature of chemical reactions as applied to technology and its applications to society. The world of consumer chemistry will be explored. The goal is to develop a chemical literacy for the student. A series of laboratory exercises that develop concept understanding and process skills. Some individual and group projects will be included.

II. COURSE OBJECTIVES

1. To develop an understanding of the role of chemistry in describing our natural environment.

2. To be able to explain in chemical terms, the classification of matter, changes in matter, and resulting energy changes.

3. To develop an understanding of atomic theories and to relate the structure and bonding of atoms and molecules to applications in chemical technology.

4. To be able to use the Periodic Table of Elements.

5. To develop a physical and chemical understanding of the properties of water and to explore some of the problems of water pollution.

6. To develop an appreciation of the history of chemistry, the men, women, and minorities responsible for the contributions.

7. To be able to explain in chemical and other scientific terms, the societal problems of air pollution and the scarcity of energy resources.

8. To provide an understanding of chemistry related to some common consumer products.

9. To provide the necessary laboratory experiences to illustrate the concepts and applications of chemistry and to provide some experiences for making generalizations based upon lab data.

10. To be able to use basic mathematics and some graphical techniques to arrive at quantitative answers to chemical problems.

III. **COURSE OUTLINE** (26 lectures)

1. Chemistry: Its Nature, Its Technology and the Impact on Society (1 lecture)

2. Atoms as Building Blocks of Matter (3 lectures)
   1. Atomic Structure
   2. Periodic Table

3. Chemical Bonding (3 lectures)
   1. Major Bond Types
   2. Relationship of Structure and Bonding to Properties
   3. Formula Writing

4. Principles of Chemical Reactivity (3 lectures)
   1. Chemical Reaction Types
   2. Balancing Equations
   3. Mole Concept
   4. Thermochemistry

5. Acid-Base Chemistry and Oxidation-Reduction (2 lectures)
   1. Relationship of Acid-Base Chemistry to Environmental Problems
   2. Relationship of Acid-Base Chemistry to Consumer Products
   3. Redox Reactions

6. Nuclear Reactions (2 lectures)
   1. Radioactivity
   2. Fission and Fusion
   3. Role of Nuclear Energy

7. Carbon Chemistry (3 lectures)
   1. Introduction to Hydrocarbons
   2. Organic Chemicals for Society

8. Nutrients and Additives in Food (2 lectures)
   1. Major Types of Vitamins, Nutrients and Minerals
   2. Food Additives: Uses and Safety

9. Toxic Substances (2 lectures)
   1. Corrosive Poisons
   2. Metabolic Poisons
   3. Heavy Metals
   4. Carcinogens and Teratogens

10. Air and Water Pollution Problems (3 lectures)
    1. Major Air Pollutants
    2. Major Water Pollutants
    3. Global Effects of Greenhouse Gases
    4. Global Effects of Ozone Depletion

11. Energy Resources Past, Present and Future (2 lectures)
    1. Fossil Fuels and New Technology
    2. Nuclear Alternatives
    3. Future Energy Options

IV. **LABORATORY PROGRAM** (2 hr./week)

A. Inquiry Activities, "Candle", "Black Box"

B. Direct Observations - Physical and Chemical Changes

C. Paper Chromatography of Magic Markers

D. Percent Oxygen in Air

E. Analysis Cigarette Smoke

F. A Comparison of the Acid Strengths of Common Vinegars

G. Determination of Water Hardness

H. Identification of Food Additives in Common Foods
(Actual Labels and References will be used)

I. Computer Simulation Using Energy Software
(2-3 Apple II Computers necessary)

J. Student Demonstration and Presentation Activities
(Students will work in groups of 2-4)

K. Student Demonstration and Presentation Activities
(Students will work in groups of 2-4)

L. Student Demonstration and Presentation Activities
(Students will work in groups of 2-4)

V. **EVALUATION METHODS**

The final grade for the course will be determined as follows:

50%	Tests	2 tests and 1 final exam at assigned time
15%	Quizzes	3 quizzes during lecture
10%	Written Summaries	10 written summaries based upon 10 articles from popular science journals
25%	Lab	The lab work activities will be averaged together to determine the lab score

VI. **REQUIRED TEXTBOOK**

Textbook: Joesten et. al., World of Chemistry, Saunders Publishing Co., Philadelphia, 1990

Lab Manual: Paperback handouts given in lab

VII. BIBLIOGRAPHY

Ballas, Frank et. al., 1990, Physical Science with Environmental and Consumer Applications, 4th edition, Kendall Hunt Pub. (Dubuque IA), 80 p.

DeVito, Alfred and Gerald H. Krockover, 1976, Creative Science, Little Brown & Co. (Boston) 258 p.

Eby, Denise and Roger Tatum, 1978, The Chemistry of Food Additives, United Graphics, Inc. (Seattle WA), 60 p.

Hill, J.W., 1991, Chemistry for Changing Times, 6th edition, Macmillan Pub. Co. (NY), 624 p.

Miller, G.T. and David G. Lygre, 1991, Chemistry, A Contemporary Approach, 3rd edition, Wadsworth Inc. (Belmont, CA), 674 p.

Selinger, Ben, 1989, Chemistry in the Market Place, Harcourt, Brace, Jovanovich (San Diego, CA), 670 p.

Ucko, David A., 1977, Experiments for Living Chemistry, Academic Press (NY), 190 p.

JOURNALS:
Chem Ecology - 1990
Journal of Chemical Education - 1990
Wonder Science - 1991
Science and Children - 1990

Course Syllabus

I. Catalog Description

SC 103 Earth and Space Science

2.5 credits
2 lecture hours
2 lab hours
(2c-2l-2.5 sh)

Prerequisites: SC 101, SC 102

Introduction to geology, astronomy, oceanography and meteorology. Emphasis is placed on the understanding of large scale processes and how the Earth, Solar System and Universe work. Lab experiences include hands-on work with earth materials and with instruments from all four subjects, maps, and field trips which may occur during class times, nights, and weekends.

II. Course objectives

1. Students will understand large scale processes which operate in the earth and space sciences and will appreciate that many of these processes are linked and inter-dependent upon each other.

2. Students will be able to interpret and understand the processes which create our local environment and the Earth as a whole.

3. Students will be able to develop a personal philosophy and sense of ethics by studying the origin of the universe, the role of humankind in the health of planet Earth and specifically our local environments, and become aware that they may be able to influence national and local political decisions on these issues.

4. Students will learn to work cooperatively and will collaborate on the development of laboratory teaching exercises.

III. Course Outline

A. Geology: 9 lecture periods
   1. Structure of the Earth, its internal layers and processes
   2. Plate tectonics; relationship to earthquakes and volcanoes
   3. Mineral resources; impact on human development
   4. The rock cycle: weathering and soils
   5. Geologic time and the rock record of Earth's past environments
   6. The fossil record; dinosaurs and ancient mammals
   7. Rivers and erosion; landscape development
   8. Natural hazards: landslides, earthquakes, tsunamis
   9. Geology exam

Geology: 5 Labs
   1. Minerals: identification techniques, mineral families, uses of minerals
   2. Rock types: sedimentary, igneous, metamorphic
   3. Fossils: plants, invertebrate and vertebrate animals
   4. Maps: map reading, topographic contours, distances and

directions
5. Synthesis exercise: design a teaching exercise with lab specimens

In addition, students will be required to attend and write-up notes from one of several optional field excursions.

B. Astronomy: 10 Lecture periods
1. Origin of time-keeping (day, week, month, year); calendars
2. Instrumental use: camera, spectroscope, telescope
3. Our satellite: Moon (phases and surface)
4. The Space Program: manned and unmanned, applications
5. The Planets: characteristics
6. Comets, meteors, and asteroids: characteristics
7. Sun: its impact on Earth, its characteristics
8. Properties of stars and the life of a star
9. Galaxies: our Milky Way, other galaxies
10. Astronomy Exam

Astronomy: 4 Lab periods
1. Constellations: origins, use, identification
2. Seasons: causes, effects
3. Planets: motion, characteristics
4. Stars: properties

In addition, students will be required to attend and write-up notes on one evening observation.

C. Fluid Environments: Oceanography and Meteorology: 11 Lecture periods
1-3. Properties and characteristics of water and air: similarities and differences
4-5. Water cycle, adiabatic processes, condensation, evaporation, and so on.
6-7. Understanding weather and climate: wind patterns and atmospheric circulation, Coriolis Effect
8-9. Ocean currents: surface and thermohaline circulation, Ekman Transport
10. Marine geology and paleo-oceanography
11. Ocean and Met exam

Fluid Environments: 5 Lab periods
1. Measuring properties of air: pressure, temperature, wind direction and velocity
2. Measuring properties of water: temperature, salinity, current direction and velocity, depth
3. Maps and adiabatic diagram: understanding distribution of air temperature and pressure, cyclones and anticyclones
4. Maps and T-S diagram: understanding distribution of temperature, salinity, density of seawater; how water masses move and mix
5. Synthesis exercise: students will design a teaching exercise for elementary students to measure air or water temperature, salinity, pressure or to demonstrate wind and water currents

In addition, students may choose to attend a 3-day field trip to the Marine Science Consortium at Wallops Island, Virginia

IV. Evaluation Methods

The final grade for this course will be the average of the grades earned in geology, astronomy, and fluid environments. The individual professors teaching each portion will determine the grade by the following:

60% Tests which integrate lecture and lab material
40% Lab exercises and quizzes which may include book or article reviews

V. Required Textbooks, Supplemental Books and Readings

Textbook: Edward J. Tarbuck and Frederick K. Lutgens, 1988, Earth Science: 5th edition, Merrill Publishing Company, N.Y., 612 p.

Non-textbook readings: students will read a variety of childrens' science books and magazines such as "3-2-1 Contact," "Odyssey," and astronomy. The students will be required to critique these books and magazines for their science content as well as how they might appeal to children and be used in the elementary science classroom. Students will read a children book and a magazine for each of the three portions of this course.

VI. Special Resource Requirements
Instructional media such as 35 mm slide sets, videocassettes, subscriptions to magazines, mineral and rock specimens, star charts

VII. Bibliography

Abell, George and others, 1988, Realm of the Universe: Saunders Publ. (N.Y.), 528 p.

Ahrens, C. Donald, 1982, Meteorology Today: An Introduction to Weather, Climate, and the Environment: West Publ. (Minneapolis), 514 p.

Hartmann, William K., 1991, Astronomy: The Cosmic Journey: Wadsworth Publ. (Belmont, CA), 693 p.

Harvey, J.G., 1976, Atmosphere and Ocean: Our Fluid Environments: Artemis (Sussex), 143 p.

Levin, Harold L., 1991, The Earth Through Time: Harcourt-Brace-Jovanovich (N.Y.), 651 p.

Neshyba, Steve, 1987, Oceanography: Perspectives on a Fluid Earth: Freeman and Co. (N.Y.), 506 p.

Open University Course Team, 1989, Series of Volumes on Oceanography: Pergamon Press (Cambridge), about 600 pages in 5 volumes.

Pasachoff, Jay, 1989, Contemporary Astronomy: Saunders Publ. (N.Y.), 577 p.

Plummer, Charles C. and David McGeary, 1991, Physical Geology: Brown Publishers (N.Y.), 543 p.

Press, Frank and Raymond Siever, 1986, Earth: Freeman and Co. (N.Y.), 656 p.

Spiegel, Herbert and Arnold Gruber, 1983, From Weather Vanes to Satellites: An

Introduction to Meteorology: Wiley (N.Y.), 241 p.

Stanley, Steven M., 1989, Earth and Life Through Time: Freeman and Co. (N.Y.), 689 p.

Thurman, Harold V.; 1991, Introductory Oceanography: MacMillan (N.Y.), 526 p.

Course Analysis Questionnaire

A1: This course is designed for Elementary Education majors to fulfill their Liberal Studies science requirement and to satisfy national standards for science preparation of teachers in training. Thus, this course is proposed as a Liberal Studies Science Lab course.

A2: No, this course does not required changes in the content of existing courses

A3: This course is traditional in that it is lecture and lab, but it is non-traditional in that the students are spending less time in lecture than in GS 101-104, for example. This is our only 2.5 credit course.

A4: No

A5: No

A6: No

A7: This course was designed to fulfill the national standards set forth by the National Science Teachers Association and to prepare the students for PDE recommended science competencies. This course is one of the four 2.5 credit courses elementary education students will take to fulfill the Liberal Studies Science: Lab requirement.

A8: The content of this course is required by the Pennsyulvania Department of Education for elementary teachers. Previously, elementary education majors were not exposed to earth science concepts when they took Physical Science I and II. The idea of this course sequence was created in conjunction with some of the NS&M departments and the department of Professional Studies in Education.

B. Interdisciplinary Implications

B1: This course will be team taught with each professor responsible for a portion of the course: example: Sutton - Astronomy, Cercone - Geology, and Richardson - Fluid Environments.

B2: No

B3: This content of this course does not overlap with courses from other departments. The content of this course is similar to the content of GS 101-104 Earth Science: Geology and Oceanography and Earth Science: Astronomy and Meteorology, but is taught specifically with the needs of elementary education majors in mind.

B4: No

Section C: Implementation

C1: Faculty: Prof. Paul Prince who teaches the introductory as well as upper level meteorology courses is retiring at the end of Fall 1991. We are seeking a replacement position. Our other courses, which include both Liberal Studies Science as well as Liberal Studies Synthesis and upper level majors courses, will be much reduced by our offering this courss each semester and we project that GS 101 -104 Earth Science will be cancelled if Prince is not replaced.

Space: We need a large lecture classroom such as Weyandt 32.

Equipment is sufficient

Laboratory Supplies: we will need more of the following to support 300+ additional students in our department: maps, minerals and rocks, lab supplies such as acid bottles, streak plates, salts, hydrometers

Library Materials: children's science magazines should be ordered

Travel Funds: At national educators' conferences Sutton will present the results of this innovative approach to preparing the elementary school teacher in training to teach science. She will require additional travel funds from outside the department.

C2: No

C3: We expect this course to be offered every semester. This course may be offered during the summer.

C4: We expect to offer two lecture sections and six laboratory sections in the Fall and Spring terms; one lecture section and one lab section during the summer.

C5: We expect 75 students in each lecture section and 24 students in each lab section during the Fall and Spring terms.

C6: No

C7: This course is part of the 4-course science sequence required for the Elementary Education major. Please see the requirements of the Department of Professional Studies in Education.

Section D: Miscellaneous

This course was developed through consultation with Biology, Chemistry, Physics and Professional Studies in Education. We suggest that these "sister" courses be evaluated as a unit with representatives from these departments to answer any questions.

Catalog Description

SC 103 Earth and Space Science — 2.5 credits
2 lecture hours
2 lab hours
(2c-2l-2.5 sh)

Prerequisites: SC 101, SC 102

Introduction to geology, astronomy, oceanography and meteorology. Emphasis is placed on the understanding of large scale processes and how the Earth, Solar System and Universe work. Lab experiences include hands-on work with earth materials and with instruments from all four subjects, maps, and field trips which may occur during class times, nights, and weekends.

I. Catalog Description

SC 104 Fundamentals of Environmental Biology 2.5 credits
2 lecture hours
2 lab hours

Prerequisites: SC 101, SC 102

A basic introduction to the major concepts and principles of ecology and their application to modern living.

II. Course Objectives

All objectives will begin with the phrase "At the end of this course the students should be able to ....".

1. demonstrate an understanding of the processes of scientific inquiry.
2. describe the characteristics of living systems.
3. identify common flora and fauna of the area and describe their natural histories.
4. discuss the structure of ecosystems including both the biotic and abiotic components.
5. describe ecosystem function including the cycling of nutrients and the flow of energy through the system.
6. explain how populations of organisms interact with one another thereby maintaining the stability of the system.
7. describe how ecosystems change over time.
8. explain the uniqueness of individual organisms as it relates to their adaptation to their environment.
9. discuss how human populations have changed over time.
10. discuss the eutrophication of aquatic systems and describe measures for control.
11. explain how both indoor and outdoor air quality impact them as well as other living organisms.
12. illustrate an understanding of how pests impact upon their lives and describe environmentally safe methods of control.

13. demonstrate an understanding of the importance of wildlife.

14. describe how humans affect wildlife populations.

15. discuss the importance of habitat management for wildlife.

16. deliberate the importance of wise resource management as it relates to sustainable earth awareness.

IIIa. Course Outline: Lecture

A. Introduction to Environmental Biology (1 lecture)
B. Ecosystems Large and Small (2 lectures)
    a. What is an ecosystem?
    b. Biomes as Unique Functioning Systems
C. Ecosystem Structure (2 lectures)
    a. Biotic
    b. Abiotic
D. Ecosystem Function (3 lectures)
    a. Energy Flow
    b. Nutrient Cycling

[Exam I]

E. Ecosystem Homeostasis (4 lectures)
    a. Population Dynamics
    b. Predator-Prey Relationships
    c. Parasite-Host Interactions
    d. Other unique relationships
    e. Ecological Succession
F. Evolution of Populations and Ecosystems (1 lecture)
G. Human Population Trends (2 lectures)
H. Aquatic Habitats (2 lectures)
    a. Resource Value
    b. Eutrophication
    c. Protection

[Exam II]

I. Value and Need for Preservation of Wetlands (1 lecture)
J. Air Pollution (3 lectures)
    a. Indoor
    b. Outdoor
        1. Thermal Inversions
        2. Photochemical Smog
        3. Acid Deposition
        4. The Greenhouse Effect
        5. Ozone: Good and Bad of It
K. Pests and Their Control (2 lectures)
    a. Case Study: Dichlorodiphenyltrichloroethane
    b. Integrated Pest Management
L. Wildlife (3 lectures)
    a. Endangerment and Extinction
    b. Protection and Management

[Final Lecture Exam]

III b. Laboratory Program for SC 104

Note: Due to the fact that a majority of the laboratory program is field-oriented, it is necessary to provide flexibility in the program to allow for the weather peculiarities of a given semester or summer. The laboratory and field experiences will be selected from the following:

a. Taxonomy of Common Trees of the Area
b. Population I (Invertebrates or Yeast)
c. Population II (Invertebrates or Yeast)
d. Aquatic Biology
e. Corn Depredation by Wildlife
f. Ecological Succession
g. Abiotic Factors of the Environment
h. Water Treatment for Human Consumption
i. Treatment of Waste Water
j. Plant Propagation and Growth
k. Microscope Techniques
l. Micro-organisms
m. Thermal Loading and Its Effects on Aquatic Systems
n. Discussion of Supplementary Reading.
o. Animals with Skeletons

IV. Evaluation Procedures:

A. Understanding of lecture content will be determined via 3 exams consisting of a variety of question types. These exams will account for approximately three fifths of a student's grade.

B. Laboratory performance will be ascertained via a series of exams, written laboratory reports, and/or written reviews of current events or select supplementary readings. These evaluations will account for approximately two fifths of a student's grade.

C. A grade distribution will be derived for each evaluation experience.

D. A student's final grade will be determined by summing his or her individual scores.

E. The final letter grade will be derived from a curve established by a summation of the individual evaluation experience cut-offs.

V. Texts: Nebel, Bernard J. Environmental Science: The Way the World Works. New Jersey: Prentice-Hall, Inc., 1990.

Watts, May Theilgaard. Master Tree Finder. New York: Warner Books, Inc., 1986.

Reid, George K. Pond Life. New York: Golden Press, 1987.

Supplementary Readings (One to be selected by the lecture professor):

Abbey, E. 1991. Desert Solitaire. A Season in the Wilderness. Ballentine Books, N.Y.

Angier V. and Angier B. 1985. At Home in the Woods. MacMillan Co., N.Y.

Beston, H. 1991. The Outermost House. Ballantine Books, N.Y.

Carson R. 1987. Silent Spring. Fawcett Publications. Greenwich, Conn.

Dethier, V. 1984. The Ecology of a Summer House. The University of Massachusetts Press. Amherst, Mass.

Leopold, A. 1991. A Sand County Almanac. Ballantine Press, N.Y.

Teal, J. and Teal, M. 1991. Life and Death of the Salt Marsh. Ballantine Books, N.Y.

Warner, W. 1987. Beautiful Swimmers. Penguin Books. N.Y.

VI. Bibliography

Miller, G.T. 1990. Living in the Environment. Wadsworth Publishing Company. Belmont, California.

Owen, O.S. and Chiras, D.D. 1990. Resource Conservation. MacMillan Publishing Company. N.Y.

COURSE SYLLABUS

I. CATALOG DESCRIPTION

SC 105 PHYSICAL SCIENCE I

4 credits
3 lecture hours
2 lab hours

A descriptive and conceptual course in physics for the non-science major. High school physics is not a prerequisite. Course content is designed to develop an understanding and appreciation of the physical world around us, to produce changes in attitude and background essential for our modern society, and to clarify the following topics: motion, heat, sound, light, electricity, magnetism, and the structure of matter.

II. COURSE OBJECTIVES

1. To develop and understanding of the role of physics in describing the phenomena of nature.

2. To provide the necessary experiences in the laboratory so that the processes of observation, classification and generalization may be used.

3. To be able to explain in terms of the physical processes involved some of the more common natural phenomena.

4. To be able to use mathematics both algebraic and graphical techniques to arrive at numerical answers for scientific problems.

5. To inculcate an attitude of appreciation for the importance of science in modern society.

6. To furnish a factual background as a foundation for making intelligent judgments concerning the worth of the applications of science.

7. Provide an understanding of some of the "great moments" in the history of physics and the individuals, including women and minorities, responsible for them.

PRODEDURE:

1. The use of lectures, demonstrations, films and other audio-visual aids to illustrate physical principles and develop a knowledge of them.

2. A sequence of laboratory exercises to provide "hands on" experiences with experimental techniques and instruments.

3. The use of homework assignments and outside readings to broaden the student's background.

4. 3 one-hour tests, a 2 hour final, weekly laboratory exercises, scheduled quizzes, and assigned homework to help evaluate the student's progress and his assimilation of the topics covered.

III. COURSE OUTLINE

39 lectures total

A. Measurement (1 lecture)
   1. Numbers and units

   2. Systems of measurement

a. English
b. Metric

3. Vectors and Scalars

B. Motion (9 lectures)
1. Fundamental Concepts
a. Acceleration, velocity and displacement

2. Describing motion
a. Graphical techniques
b. Use of formulas

3. Kinematics - the how of motion
a. Uniformly accelerated motion
b. Motion
c. Air resistance and motion

4. Dynamics - the why of motion
a. Newton and his laws
1) Inertia
2) Impulse and momentum
3) Action and Reaction

5. Motion about an axis
a. Curvilinear versus linear

6. Gravitation and Motion
a. The universal force
b. Kepler's Laws of planetary motion

C. Energy (8 lectures)
1. Types
a. Kinetic
b. Potential

2. Conservation of
a. Collisions and other things

3. Energy Transfer
a. Work
b. Heat

4. Applications

D. Waves (8 lectures)
1. Sound
a. Echoes, the voice and the ear
b. Resonance
c. Doppler Effect

2. Light
a. Mirrors
b. Lenses

c. Color
1) Rainbows and other phenomena

E. Electricity and Magnetism (5 lectures)
1. Static Electricity
a. Charged objects
1) Forces of attraction and repulsion
b. Friction and induction
c. Electric Fields

2. Current Electricity
a. Circuits
b. Amps, volts and ohms
c. Fuses and circuit breakers

3. Magnetism and Electricity
a. The interconnection
b. Magnetic fields and forces

4. Applications
a. Motors
b. Generators
c. Appliances

5. Electricity and the Body
a. Health hazards

F. Modern Physics (2 lectures)
1. Relativity - Einstein

2. Quantum Theory - Planck
a. Photon

3. Dual Nature of Reality - D'Broglie
a. Wave and/or particle

4. You can't be too sure - Heisenberg
a. How much can we know

G. The Atom (5 lectures)
1. Its structure

2. The nucleus
a. Fission
b. Fusion

3. Atomic Energy - Good or Bad

H. The Kingdom of the Sun (1 lecture - but much of this is integrated into the study of motion)
1. The Solar System
a. Planets and the sun

2. The earth, sun and moon

a. Days, months and years

3. The earth and its motions in space
   a. Rotation
      1) Days and nights
   b. Revolution
      1) The seasons

IV. EVALUATION METHODS

The final grade for the course will be determined from 3 one-hour examinations, a two hour final, scheduled quizzes, assigned homework, and weekly laboratory exercises.

V. REQUIRED TEXTBOOKS, SUPPLEMENTAL BOOKS AND READINGS

1. Readings - The student will:

(1) receive a listing of enough books, science fiction stories and articles that he or she can cater to any interest and still not have to purchase the outside readings.

(2) select one book, one science fiction book and two article readings from the list.

(3) declare the choices to be read in laboratory by the third laboratory period on a printed card.

(4) confirm the selection of readings on his or her card during the tenth laboratory period (reminds them to finish).

(5) be presented with an individualized, computer-printed exam consisting of five multiple-choice questions per book and three multiple choice questions per article, for a total of 16 questions, or 30 T-F items, selected randomly from our question bank, and different each time. <u>This exam will be completed in the first 20 minutes of the eleventh laboratory of the semster.</u>

(6) The graded test will be recorded with, but separate from, the laboratory grade and will count as one-half test in the normal grade structure of the course.

2. General Version
   a. Text - <u>Introduction to Physical Science</u>, Riban, McGraw-Hill, 1982

   b. Supplemental Text - Departmental Lab Manual available at Copies Now

3. Elementary Ed/Special Ed Version (1989-90)
   a. Text - <u>Conceptual Physics</u>, 6th Edition, Paul Hewitt, Little,Brown, 1989

SYLLABUS ADDENDUM

PHYSICAL SCIENCE I - GENERAL VERSION - LABORATORY ONLY

I. LAB OBJECTIVES

1. To allow the student to reinforce his/her understanding of the concepts learned in lecture through a se of hands-on laboratory exercises.

2. To become familiar with the systems of measurement and the instruments associated with those syste

3. To become familiar with various analytical techniques, to include graphing and graphical analysis of the data.

4. To overcome the reluctance to manipulate simple apparatus in exploring phenomena.

5. To develop the ability to quantify data through the performance of a laboratory exercise and to analyz data to produce meaningful physics relationships.

II. LAB EXERCISES

1. Measurement - The Use of Numbers and Units
2. Measuring Instruments and Systems
3. Graphing and Graphical Analysis
4. Some Other Types of Motion
5. Systems in Equilibrium
6. Conservation of Energy - Work and Machines
7. Conservation of Energy - Heat, Temperature, and Thermal Energy
8. Vibrations, Resonance, and Waves
9. Reflection, Refraction, and Mirrors
10. Refraction and Lenses
11. Some Other Properties of Light
12. Conservation of Energy and Electric Circuits
13. Astronomy Lab
    a. The Orbit of Mars
    b. Parallax
    c. The Earth and Its Motions in Space (Retrograde Loop of Mars)
    d. Triangulation.

COURSE SYLLABUS

I. CATALOG DESCRIPTION

4 credits
3 lecture hours
2 laboratory hours

SC 106 PHYSICAL SCIENCE II
A basic course in environmental and consumer chemistry for the non-science major. High school chemistry is not a prerequisite. Major topics include man's use and abuse of soil, water, air and energy resources, global food production and hunger, the nuclear industry and the threat of nuclear war. Consumer topics include vitamins and nutrition, food additives, pesticides, and drugs.

II. COURSE OBJECTIVES

1. The student shall understand the major discoveries and concerns in the history of chemistry. Individuals responsible for these discoveries include Lavoisier, Proust, Dalton, Rutherford, Geiger, Curie, Bohr, Einstein, Pauling and Carson.

2. The student will develop scientific methods, including quantitative aspects, that lead to the best solutions to major environmental, consumer and health problems.

3. The student will understand the political, economic and social forces that impact the solution of the major environmental, consumer and health concerns.

4. The student will realize that major chemically related problems require their long term commitment of time and resources needed to achieve solutions to these concerns.

III. COURSE OUTLINE (The Lecture Component)

A. The Major Outside Reading-Writing Component

1. By the third week of the course, each student will select a major work to be read. The work will be selected from a list of 3-6 titles proposed by the instructor and purchased by the student in the Coop Bookstore. Examples of titles an instructor might propose are: "Silent Spring" by R. Carson; "Bread for the World" by A. Simon; "I'll Winds"; "Pollution's Toll on Trees and Crops" by World Resources Institute Publications.

2. By the end of the tenth week of the course each student will complete a five page written report on the work selected.

3. The final exam will include one specific essay question (10% of the final exam) for each of the proposed titles, with each student answering the question for his/her chosen title.

B. Lecture Topics (3 lectures)

1. Chemistry as a science
   a. Measurement

b. Scientific method
c. The nature of matter - mixtures and pure substances
d. Parameters measured - energy, mass, temperature, and density
e. Risk - benefit analysis

2. Atoms (5 lectures)
   a. Atoms: The Greek Idea
   b. Lavoisier: The Law of Conservation of Mass
   c. Proust: The Law of Definite Proportions
   d. Dalton: Atomic Theory
   e. The periodic table
   f. X-rays and radioactivity - Rontgen, Becquerel and Curie
   g. Nuclear structure - Rutherford and Geiger
   h. Electronic structure - Bohr and Schrodinger
   i. Electronic configurations - periodic table

3. Nuclear Chemistry (4 lectures)
   a. Isotopes
   b. Natural radioactivity modes
   c. Half-life
   d. Use of radioisotopes in medicine and in the home
   e. Radon gas as a health threat
   f. Nuclear weapons, war, the arm race, SDI, nuclear winter and arms control

4. Chemical Bonding (3 lectures)
   a. Stable electron configurations
   b. Ionic and covalent compounds
   c. Molecular shape vs. properties
   d. Valence Rules using environmentally significant molecules

5. Names, Formulas and Equations (3 lectures)
   a. Common simple ions
   b. Binary ionic compounds
   c. Polyatomic ions
   d. Chemical equations - collection of quantitative data for acid rain control.

6. Acids and Bases (3 lectures)
   a. Acids and bases - properties
   b. pH scale
   c. Antacids
   d. The mine acid-acid rain problem

7. Organic chemistry (5 lectures)
   a. Nonrenewable-renewable resources
   b. Alkanes - the petroleum industry
   c. Alkenes - plastics and the garbage problem
   d. Aromatic compounds - tobacco smoking - cancer and the addictive effects of nicotine
   e. Alcohol - the booze problem
   f. Functional groups - esters, aldehydes, ketones, carboxylic acids, amines and DNA

8. Water as a Resource (4 lectures)
   a. Water - its properties
   b. Water cycle
   c. Major pollutants
   d. Ecological cycles
   e. Groundwater contamination
   f. Wastewater treatment
   g. Municipal water purification

9. Air as a Resource (4 lectures)
   a. Properties of the atmosphere
   b. Nitrogen and the oxygen - carbon dioxide cycle
   c. London type smog - characteristics and control
   d. Los Angeles type smog - characteristics and control
   e. Ozone layer - chlorofluorocarbons
   f. Pollution Standards Index
   g. The Greenhouse Effect

10. Energy Resources (4 lectures)
   a. Fossil fuels - coal, natural gas and petroleum
   b. Products from petroleum
   c. Limitations of the fossil fuel industry
   d. Alternative sources - fusion, solar, geothermal, wind and coal gasification
   e. Your role in fuel conservation - the auto and in the home
   f. Home construction and retrofitting leading to full efficiency

11. Soil as a Resource and Food Production (2 lectures)
   a. Essential soil minerals - analysis
   b. Fertilizers
   c. Insect control
   d. Biological magnification of pesticides
   e. Biological insect control
   f. Grow your own food - the home garden
   f. Problems in the U.S. food delivery system

12. Food Additives (2 lectures)
   a. Esters
   b. Flavor enhancers
   c. Preservatives
   d. Antioxidants
   e. Colors
   f. Artificial sweetners
   g. Vitamins and minerals
   h. The GRAS list

As time permits, other topics would include drugs, household chemicals and cosmetics.

IV. COURSE OUTLINE (Laboratory Component)

A. Laboratory exercises - the schedule (one exercise per week)

1. Direct Observation - a study of physical vs. chemical change.

2. Paper Chromatography - a study of mixtures - develops the skill of working with small quantities, observation of minute differences, begins student quantitative skills.

3. Percentage of Weight of Oxygen in a Compound - exercise on the Law of Definite Proportions - a cornerstone of chemistry - develops maniuplative skills - use of the balance.

4. Percentage of Oxygen in Air - the beginning of the understanding of the properties and pollution of the atmosphere.

5. Gram Molecular Weight of Gases - the concept of the mole, the work of Avogadro, understanding the gas phase of matter.

6. Radioactivity - Half-Life - modes of decay, determination of the half-life of a short lived radioisotope, radioisotopes in our home, use of modern instruments.

7. Volumetric Analysis - analysis of acidic coal mine drainage - a major water pollution problem, a slide show of mine sites enhances the laboratory exercise.

8. Neutralizing Capacity of Antacid Tablets - a study of the most economically efficient compounds with pertinent medical information.

9. Analysis of Cigarette Smoke - a study of the addictive and health effects of tobacco/pot smoking. Students use minute samples at the limit of mass measurement (0.1 mg). After the exercise, a number of smokers are able to quit the habit. Supplemental information is provided to our students by the American Lung Association.

10. Water Hardness - a study of the mineral content of student's home water samples - the exercise enhances the student's appreciation of our water resource.

11. Iron in Acidic Mine Drainage - a study of the mine acid problem - students also measure the iron content of their home water samples.

12. Phosphorus Analysis in Detergents - an exercise dealing with a major water pollution problem - excessive plant nutrients in natural waters (e.g. Lake Erie).

13. Nitrite in Hot Dogs - Luncheon Meats - an exercise dealing with nitrite - one of the few food additives capable of inducing cancer-data is collected to allow decisions on which ones to purchase and consume.

V. EVALUATION METHODS

The final course grade will be determined as follows, allowing for small differences among individual instructors.

50% Exams. Three exams, including the final, consisting of multiple choice, matching, completion, essay and calculation questions.

10% Quizzes. Announced and unannounced quizzes dealing with textbook assignments.

10-15%. Major Reading Report. Each student will submit a five page paper dealing with a selected major reading.

25-30% Laboratory Component. From laboratory reports and quizzes.

VI. Required Textbooks, Supplemental Books and Readings

Textbook: Hill, J.W. Chemistry for Changing Times, Macmillan Publishing Company, New York, 1988.

Lab Manual: Ballas, F; Fazio, F; Zambotti, G; Costa, J.; Physical Science with Environmental and Consumer Applications, Kendall/Hunt Publishing Company, Dubuque, Iowa, 1989.

VII. BIBLIOGRAPHY: Selected representative journals and readings

National Wildlife, published by the National Wildlife Federation, Vienna, Virginia.

Environmental Science and Technology, published by the American Chemical Society, Washington, D.C.

Chemical and Engineering News, published by the American Chemical Society, Washington, D.C.

Journal of Chemical Education, published by the American Chemical Society, Washington, D.C.