Professional Education Courses

ED 1111 American Sign Language 1 (3 credits)
In this introductory course, students learn basic sign vocabulary, grammatical structure, and fingerspelling. Introduction to the Deaf community as a linguistic and cultural minority in the United States. Explores differences in hearing and Deaf cultures throughout the world. Liberal Education Goal Area 8.

ED 1112 American Sign Language 2 (3 credits)
In this introductory course, students continue to learn basic sign vocabulary, grammatical structure, and fingerspelling. Students deepen their knowledge of the Deaf community as a linguistic and cultural minority in the United States. Explores differences in hearing and Deaf cultures throughout the world. Prerequisite: ED 1111 or ML 1111. Liberal Education Goal Area 8.

ED 1910 Directed Independent Study (3 credits)
Arranged individual study.

ED 1920 Directed Group Study (3 credits)
Arranged group study.

ED 1930 Experimental Course (3 credits)
A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

ED 1940 In-Service Course (3 credits)
A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

ED 1950 Workshop, Institute, Tour (3 credits)
An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

ED 1960 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

ED 1970 Internship (3 credits)
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

ED 1980 Research (3 credits)
Research carried out by the student that is based on appropriate methodology and scholarship.

ED 1990 Thesis (3 credits)
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

ED 2007 Anatomy of Hate (3 credits)
Exploration of the mentality and culture of various hate groups, with connections between historical and contemporary events. Discussion of dissemination of sensitive material in the K-12 environment. Liberal Education Goal Areas 7 & 9.

ED 2100 Child Development and Learning (3 credits)
Child development and learning from prenatal through eight years of age. Emphasis on developmental domains and learning: physical (including health practices), cognitive, language, emotional, social (includes cultural), and creative. Assessment of development and learning. Field experiences required for child observation and assessment. Prerequisite: 2.50 GPA.

ED 2910 Directed Independent Study (3 credits)
Arranged individual study.

ED 2920 Directed Group Study (3 credits)
Arranged group study.

ED 2925 People of the Environment: Education Perspective (3 credits)
This course will survey the philosophical, historical, and ecological basis for environmental education within the context of K-12 educational institutions. Environmental issues of a local, state, federal, and global nature will be investigated. The role of pedagogy as a basis for changing societal attitudes relative to environment will be explored. Liberal Education Goal Area 10.

ED 2930 Experimental Course (3 credits)
A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

ED 2940 In-Service Course (3 credits)
A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

ED 2950 Workshop, Institute, Tour (3 credits)
An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

ED 2960 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

ED 2970 Internship (3 credits)
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

ED 2980 Research (3 credits)
Research carried out by the student that is based on appropriate methodology and scholarship.

ED 2990 Thesis (3 credits)
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

ED 3000 Introduction to FasTrack (1 credit)
This course provides a comprehensive evaluation of the professional and academic experiences of aspiring teacher candidates. Transcripts and professional data are reviewed. Once the evaluation is completed, the student will work with the instructor to create an individualized program plan that leads to teacher licensure. Students are introduced to the concept of professional reflection based on the Standards of Effective practice. Student concerns and questions are addressed as well as an introduction to D2L and online learning. Discussions around the four components of the Professional Education Conceptual Framework in the areas of environmental awareness, technology, proficiency in teaching and collaboration occur via D2L. An introduction to TaskStream and its relation to the documenting of the Standards of Effective practice is provided. The cost for reviewing transcripts is waived for candidates who enroll in this course. This course is required before taking any other courses in the FasTrack program. Prerequisite: An earned bachelor's degree.

ED 3100 Introduction to the Foundations of Public School Education (3 credits)
Introduction to the historical, social, and political foundations of public school education. Introduction to the roles, functions, and responsibilities of an elementary or secondary public school teacher; a practicum experience.
ED 3110 Educational Psychology (3 credits)
A study of the teaching and learning process: teaching with emphasis on planning effective instruction, management, and assessment; learning from behavioral, information processing, and constructivist views focusing on how learning is influenced by cognitive, personal, social, and moral development, and by teaching approaches, motivation, and other factors.

ED 3140 Human Relations In Education (3 credits)
Study of the causes and psychological dynamics of racism, sexism, and other forms of human oppression. Focus on building teacher/family relationships as a strategy in anti-bias teaching. Prerequisite: ED 3100 and ED 3110.

ED 3160 Philosophy and Organization of the Middle School (2 credits)
Specific information and skills relative to the development of a philosophy and rationale for a middle school. Emphasis on the relationship between the middle school student, the middle school teacher, and the philosophy, organization (including interdisciplinary planning, advisor/advisee plan, etc.), and program of the middle school.

ED 3170 Education of the American Indian (3 credits)
Survey of traditional and western models used in the education of American Indians from colonial times to the present.

ED 3201 Language Arts I (3 credits)
A survey of various approaches and an investigation of the multiplicity of tasks involved in the teaching of elementary school reading. Focuses on emerging literacy development as well as assessment in the early years of learning to read. Corequisites: ED 3100 and ED 3110.

ED 3202 Language Arts II (3 credits)
Focuses on the use of children's literature in the elementary and middle schools and the role of literature in a balanced literacy program and continued language development. A balanced literacy program includes the integration of reading, writing, spelling, listening, speaking, and viewing skills meeting the needs of diverse learners. Prerequisites: ED 3201 for Elementary Education licensure candidates.

ED 3203 Language Arts III (3 credits)
Focuses on literacy components of the elementary and the middle school reading program. Special emphasis is given to the development of literacy skills in writing, listening, speaking, media literacy, and presenting and viewing as a part of a holistic view of language and communication. Prerequisites: ED 3202 for Elementary Education licensure candidates.

ED 3207 Reading in the Primary Grades (3 credits)
Methods and materials used in the teaching of reading in the primary grades with an emphasis on instructional problems methodology, and materials.

ED 3208 Developmental Reading in Middle School (3 credits)
Intensive study of reading in the middle school grades with an emphasis on instructional problems methodology, and materials.

ED 3212 Curriculum Instruction using Response to Intervention (RTI) (3 credits)
This course is designed to provide students with opportunities to apply learning in an authentic setting. Students will demonstrate-through fieldwork, online discussion, and course assessments-their knowledge of curriculum using Response to Intervention (RTI) and how to supervise a reading program. Prerequisites: ED 3201 (Elementary Students) or ED 4737 (Secondary Students).

ED 3217 Curriculum Enrichment through Media Resources (3 credits)
Designed to develop activities, projects, and units with a focus on the integration of the language arts throughout the elementary school curriculum. Various media resources are explored with an emphasis on technology. Prerequisite or Corequisite: ED 3201

ED 3218 Laboratory Experiences in Reading (2 credits)
Designed to provide students with actual teaching experiences in the area of reading. Time arranged.

ED 3221 Elementary Math Methods (3 credits)
Objectives, materials and methods of teaching modern mathematics. Requires visits to elementary schools. Prerequisites: ED 3100, MATH 1011 and Math 1013.

ED 3222 Elementary Science Methods (3 credits)
Consists of 1) a process science component covering physical, earth, and life science as related to Piagetian learning theory, and 2) an environmental education component including the philosophy, objectives, methods, and materials of environmental education. Prerequisites: ED 3100 and ED 3110.

ED 3240 Social Studies in the Elementary School (3 credits)
Objectives, strategies, and materials related to teaching social studies in the elementary school. Prerequisites: ED 3110, and ED 3140.

ED 3257 Introduction to Environmental Education and Interpretation (3 credits)
Objectives, program ideas, methods, and materials of outdoor education. General and specific techniques of implementing a program of environmental education and interpretation. Might not be offered every year.

ED 3258 Environmental Interpretation (3 credits)
Introduces the student to the profession of interpretation. Students gain an understanding of the principles of interpretation and their application in interpretative services in a wide variety of settings including museums, zoological gardens, industrial sites, and parks. Might not be offered every year.

ED 3301 Creative Expressions (3 credits)
Designed to help pre-service teacher education majors learn how to integrate literature, art, drama, dance/movement, and music throughout the curriculum by providing a basic arts knowledge base, clear reasons for integration, and specific arts integration principles. Emphasis is on teaching with, about, in, and through the arts. Prerequisites: ED 3100 and ED 3110.

ED 3302 Creative Process Foundations: Patterns (3 credits)
A comprehensive and holistic approach to arts education designed to provide pre-service teachers with a set of tools and strategies to teach the arts and incorporate them with other core disciplines. It provides the tools and resources to prepare teachers and students to create knowledge--emphasis on "create".

ED 3305 Literature Based Differentiated Instruction (3 credits)
This course emphasizes theory and practice in understanding, diagnosing and correcting problems in reading through differentiated literature-based instruction. Sims strategies as well instructional differentiated instruction will be introduced and implemented in a 20-hour clinical experience. (3 credits) Prerequisites: ED 3201 (Elementary Students) or ED 4737 (Secondary Students).

ED 3350 Pedagogy: Planning for Instruction (3 credits)
Introduction to the elements of designing effective instruction: learners, goals and objectives, teaching strategies, instructional technologies, and assessment, with special attention to the learners. Concepts from educational psychology and human relations are applied to the development of appropriate educational materials for diverse learners. Prerequisites: ED 3100 and ED 3110.

ED 3410 Secondary Science Methods (4 credits)
Introduces strategies and materials for teaching science grades 5-12. Discusses the teaching of science through a hands-on, inquiry-oriented methodology, and includes laboratory activities, class discussions, and modification of materials to address current Minnesota state standards. A field experience is required in an appropriate grade level with public school students. Prerequisite: Senior status or consent of instructor.

ED 3417 Teaching and Learning in the Middle School (3 credits)
Course provides comprehensive preparation for teaching in the middle school. Topics of study include young adolescent development, the family's impact on the middle school learner; middle school philosophy and content, instruction, and assessment at the middle school level. Study is given to the impact of technology on middle school teaching and learning. Course is project-focused, meaning content is organized around projects completed by students individually and in teams. Field experience is required.
ED 3440 Mathematics Methods in the Secondary School (4 credits)
NCTM Standards, lesson planning, Minnesota Frameworks, Graduation Rule, objectives, methods, and materials. Prerequisites: ED 3110 or consent of instructor.

ED 3480 Methods of Teaching Industrial Technology, Vocational Education (2 credits)
Approaches to teaching industrial technology education including philosophy, innovative approaches, classroom and laboratory strategies and methodology. Includes program visitation, evaluation and micro-teaching. Prerequisites: IT 3850, IT junior or senior status, and ED 3110.

ED 3500 Young Children with Special Needs (3 credits)
Introduction to teaching young children with special needs. Includes discussion of important aspects of education for young children in special education and mainstreamed settings. Students interrelate experiences working with young children with special needs to developing an educational philosophy. Prerequisite: ED 3110 or consent of instructor.

ED 3508 Parent/Professional Teams in Early Childhood (3 credits)
Emphasizes cooperative and coordinated educational programming with parents of normally and atypically developing infants, toddlers, and preschool age children. Models of early intervention and parent-teacher educational programs are presented and adapted for use with parents. First is interagency staffing patterns and cooperation among agencies and second is geographic, economic and social factors and related problems. Prerequisite: ED 3670 or ED 3500.

ED 3580 Teaching of Middle and Secondary School Social Studies (4 credits)
Objectives, activities, methods, and materials in teaching social studies in grades 5-12. Additional laboratory time is required. Prerequisite: ED 3110.

ED 3601 Assistive Technology (3 credits)
An overview of assistive technology for use by individuals with disabilities will be covered. Five types of devices will be examined and their uses discussed. They include environmental control devices simple augmentative communication devices; switches, modules, and mounting systems; computer adapted input devices; and special needs software. This course provides a format via e-mail for discussion regarding application and analysis of assistive technology devices. In addition, students will synthesize and evaluate information on disabilities and assistive technology devices found on the Internet.

ED 3608 Mathematics for Learners with Special Needs (2 credits)
Study of the problems that students who have learning difficulties exhibit in mathematics. Diagnostic, remedial, and instructional activities are developed. Requires an approved elementary (K-4) clinical experience. Prerequisites: ED 3221 and SPED 3600.

ED 3670 Foundations of Early Childhood Education (3 credits)
Social, psychological, historical, and educational foundations of kindergarten and prekindergarten programming are explored. Emphasis is placed on efforts of modern programs to adapt curriculum and instruction to the developmental levels and experience backgrounds of young children. Content will be geared toward teaching at the kindergarten and prekindergarten levels. Requires visitations at level of professional interest.

ED 3677 Relations and Management in Early Childhood Education (3 credits)
Study and development of skills in relations with young children, parents, and co-workers. Guidance and group management techniques are addressed for working effectively with prekindergarten and young school aged children. Experience in prekindergarten or kindergarten settings is a part of the class.

ED 3715 Learning Experiences for Infants and Toddlers (4 credits)
Studies central and nursery schools in relation to developmentally appropriate and nurturing communication techniques, relationships, environments, and learning activities for infants and toddlers. Collaborative and culturally responsive relationships with families and co-workers is required. Fifteen-hour field experience is required. (Might not be offered every year.)

ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
Focuses on designing and managing the learning environment to meet needs for growth in all learners in affective, cognitive, psychomotor, and social domains. Theories of individual behavior, diverse learners, group dynamics, communication, behavioral interventions, and classroom management presented and applied in simulations. Research on related topics is undertaken. Prerequisites: ED 3100, ED 3110, ED 3140, and ED 3350.

ED 3910 Directed Independent Study (3 credits)
Arranged individual study.

ED 3920 Directed Group Study (3 credits)
Arranged group study.

ED 3930 Experimental Course (3 credits)
A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

ED 3940 In-Service Course (3 credits)
A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

ED 3950 Workshop, Institute, Tour (3 credits)
An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

ED 3960 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

ED 3970 Internship (3 credits)
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

ED 3980 Research (3 credits)
Research carried out by the student that is based on appropriate methodology and scholarship.

ED 3990 Thesis (3 credits)
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

ED 4700 Developmentally Appropriate Preprimary Education (3 credits)
Course studies developmentally appropriate curriculum and methods for young learners. The use of learning centers, thematic instruction, culturally sensitive teaching techniques, emergent literacy and numeracy, and constructivist educational theory are explored. This is the culminating seminar in early childhood programs and includes a practicum in prekindergarten or kindergarten classroom. Prerequisite: ED 3670.

ED 4737 Content Area Reading (3 credits)
Intensive study of content area reading issues. Assessment techniques and instructional strategies appropriate for grades four through twelve. Literacy requirements addressed include application competencies that take into account classroom experiences related to various disciplines. Prerequisites: ED 3100 and ED 3110.
ED 4740 Methods of Using Instructional Technology (3 credits)

ED 4747 Curriculum Development And Instructional Technology (4 credits)
How to modify existing curriculum to incorporate instructional technology into the educational program. Focuses on curriculum development processes that link advanced multi-media technologies to the curriculum.

ED 4750 Family, School, Community Relations (3 credits)
Course focuses on family involvement as essential in the successful education of the prekindergarten-12th grade learner. Study is given to family dynamics, trends in family-school relations, problems that inhibit parent involvement, and strategies for productive family involvement. Community and cultural considerations in family-school-community relations are examined. Pertinent field activities are required. Prerequisites: ED 3110, and ED 3140.

ED 4757 Philosophy and Methods of Parent Education (3 credits)
Historical, cultural, social, and psychological foundations in the philosophy of parent education are explored. Methods in the education of adults in the context of the family are studied. Models of parent/family education are examined. Visitations to early childhood family education programs are required. Prerequisites: ED 3500, ED 3670, and ED 3677.

ED 4758 Teaching the Learner at Risk: An Ecological Perspective (2 credits)
The course explores family and school factors that put the learner at risk for academic and social failure. Strategies are developed for addressing these factors, including collaborative efforts within and outside of the classroom. Prerequisite or Corequisite: ED 3110 and ED 3140.

ED 4760 Vocal Music Consultant in the Elementary School (1 credit)
Music resources, films, records, song literature, and community resources; demonstration and observation lessons; workshops, staff relations, purchase and maintenance of materials and equipment.

ED 4770 Organization and Administration of Environmental Education & Interpretation (2 credits)
The organization and administration of environmental education and interpretation experiences in varying lengths, and the acquisition, development, and maintenance of outdoor education facilities and programs. Prerequisite: ED 3257. Might not be offered every year.

ED 4777 Field Experiences in Environmental Education and Interpretation (3 credits)
An interdisciplinary field oriented course designed to provide the student with basic knowledge of the natural environment and its relationship to the total school curriculum. Each student will design and execute an environmental or outdoor education project related to their major field of study. Arrangements will be made to test out the activity on an appropriate group (e.g. school children, adults, etc.) Prerequisite: ED 3257. Might not be offered every year.

ED 4799 The Professional Teacher (1 credit)
Students study the role of the student teacher in planning for full-time teaching. Reviews classroom procedures, organization, planning, and technologies, and covers student teacher and beginning teacher procedures, general background, introduction to the classroom, teaching strategies, language, thinking, evaluation, employment (including letters of application, resume writing, and interviews), and continued professional growth. The course must be taken the semester before student teaching. Note: Elementary majors must successfully complete all methods courses prior to student teaching; secondary majors must successfully complete all methods courses and 80 percent of their content courses prior to student teaching. Prerequisites: ED 3100, ED 3110, ED 3140, ED 3350, and ED 3780; ECE majors are exempt from ED 3350 and ED 3780.

ED 4811 Preprimary Student Teaching (3-10 credits)
Students integrate theory and practice through working as a member of a teaching team in a prekindergarten placement. Includes application of content and methods from ED 3670 and ED 3677, as well as documentation of attainment of BOT outcomes as specified in the syllabus. Prerequisites or Corequisites: ED 3670 and ED 3677.

ED 4817 Practicum in Young Child and Family Setting (3 credits)
Students work in a child and family prekindergarten setting that may be in part home-based. Students assist cooperating teacher/home visitor in conduct of the program including such tasks as assessment, planning, activity implementation, parenting education, and evaluation of activity effectiveness. Requirements: Forty-five (45) clock hours of experience including weekly seminars, for each semester credit.

ED 4818 Field Experience in Instructional Technology (4 credits)
Students teach the use of technology equipment and software in elementary or secondary school settings and complete companion reflection activities and projects. Prerequisites: ED 4740 and ED 4747.

ED 4820 Student Teaching - Elementary (1-12 credits)
Full-time teaching with guidance and supervision by University supervisors and assigned school personnel. Graded Satisfactory/Unsatisfactory only. Prerequisites: ED 3100, ED 3110, ED 3140, ED 3350, ED 3780, and ED 4799.

ED 4827 Primary Student Teaching (1-12 credits)
Students work as a member of a teaching team in a public school primary grade classroom. Students complete portfolio-based student teaching experience, focusing on selected INTASC, BOT, and Graduation Standards outcomes. Weekly seminars. University selected and approved classroom placement. Three contact hours per week per credit, including seminar. Taken at end of Early Childhood Licensure program.

ED 4830 Student Teaching - Secondary (1-12 credits)
Full-time teaching with guidance and supervision by University supervisors and assigned school personnel. Graded Satisfactory/Unsatisfactory only. Prerequisites: ED 3110 and ED 4799.

ED 4840 Student Teaching - Special Fields (1-12 credits)
Full-time teaching with guidance and supervision by University supervisors and assigned school personnel (visual arts, business education, industrial arts education, instrumental music, vocal music, health and physical education.) Graded Satisfactory/Unsatisfactory only. Prerequisites: ED 3100, ED 3110, ED 3140, ED 3350, ED 3780, and ED 4799.

ED 4910 Directed Independent Study (1-2 credits)
Completed in consultation with the instructor. When taken as special Problems in the Environment, the following description applies: An exploration of social, political, and economic perspectives of environmental problems

ED 4917 DIS Tchg Assoc | (1-2 credits)
Directed Independent Study | Teaching Associate

ED 4920 Directed Group Study (2 credits)
Completed in consultation with the instructor. When taken as Seminar in Interpretation, the following description applies: An advanced course in interpretation designed to provide student with an in-depth understanding of interpretative principles and methods. Through reading, instruction, and the creation of an interpretative project, the student will gain experience interpretation and develop a more complete understanding of the interpretative profession.

ED 4930 Experimental Course (1-4 credits)
A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

ED 4940 In-Service Course (3 credits)
A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.
ED 4950 Workshop, Institute, Tour (3 credits)
An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

ED 4960 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

ED 4970 Internship (3 credits)
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

ED 4980 Research (3 credits)
Research carried out by the student that is based on appropriate methodology and scholarship.

ED 4990 Thesis (3 credits)
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS