

SRINAKHARINWIROT UNIVERSITY

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**GRADUATE SCHOOL  
BULLETIN**

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**1981**

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## **PART I**

# **GENERAL INFORMATION**

# **General Information**

## **Historical Development of the Graduate School**

Srinakharinwirot University, formerly the College of Education, which comprises eight campuses, namely Prasarnmit, Palasuksa, Bangkhen, Patumwan, Bangsaen, Pitsanuloke, Mahasarakham, and Songkla has offered Bachelor Degrees in various fields since the academic year 1953.

The Graduate Studies began in the academic year 1956 at the College of Education Prasarnmit by firstly offering instruction of Master of Education degree in Developmental Psychology in collaboration with the International Institute for Child Study.

In the academic year 1951 the College of Education Prasarnmit was authorized by the Ministry of Education and the College Council to offer Master's degree programs. In fact, the preparation and development of curriculum had been done before that time with the cooperation of specialists from Indiana University, U. S. A. Eight Master of Education degree programs, namely, Elementary Education, Secondary Education, Higher and Teacher Education, Educational Administration, Educational Guidance, Educational Measurement, Educational Technology and Library Science were offered in the academic year 1951 but not all the programs had enough students to enroll.

At that period the College Act did not cover the establishment of the Graduate School; therefore, the offering of the educational programs after the baccalaureate was entrusted to the Graduate Studies Committee. This committee was composed of the President of the College as Chairman, Vice-Presidents of the campuses in Bangkok, Heads of all faculties and Secretary and Assistant Secretary as members. Members of the committee were adjusted periodically to suit the situation. The committee had continuously performed the duties of the Graduate School until the College was raised to be a university in 1974 and the University was decreed to have the Graduate School as part of her organization. The mentioned committee continued to carry out the mission during the transition period

until the permanent Graduate School Committee was appointed in March of 1976. The Graduate School Council comprises Dean of the Graduate School as Chairperson, Deputy Deans and four other members, selected from Graduate School staff as members, and a Secretary selected by this council.

The University also appoints Advisory Committee for the Graduate School comprising Deans of the faculties that offer programs after bachelor's degree, Vice President for Academic Affairs, Directors of Institutes and Bureau. This Advisory Committee cooperates with the Graduate School Committee in coordinating the graduate-studies programs.

Since the academic year 1976 the Graduate School has been administered and coordinated by the Graduate School Committee and the Advisory Committee exercising out the policy concerning graduate studies enacted by the University Council.

In the academic year 1963 the College of Education at Prasarnmit offered Graduate Diploma programs in 12 fields : Thai, English, geography, history, biology, physics, chemistry, mathematics, educational measurement, audio-visual education, library science, and educational guidance.

In the academic year 1974 the College of Education at Prasarnmit initiated a Graduate Diploma in Special Education : Education for the hard of Hearing. In the academic year 1979 the University augmented the Education for the Hard of Hearing program to become a master degree program.

In the academic year 1972 the Ministry of Education considered that the College of Education at Prasarnmit was well prepared to further another step in offering instruction at the doctoral level. However the College took more time to plan the work, personnel, and curricula and was actually ready in the academic year 1974. Then two doctoral programs were launched : Development Education, and Curriculum-Research and Development.

Both programs are under the jurisdiction of the Graduate School. The main reason for putting them under the Graduate School rather than under the subject matter departments is because the two programs are of inter-disciplinary nature and under the present circumstances of the University the programs would be most effectively

handled by the Graduate School

At the present time the Graduate School is responsible for carrying out 22 Master of Education programs, and two Doctor of Education programs. The Graduate School has enlarged its responsibility of other campuses allowing them to offer master of Education programs : Pitsanuloke (Educational administration starting in the academic year 1977) ; Bangsaen (biology, educational administration and elementary education starting in the academic years 1977, 1978 and 1980 respectively) ; Mahasarakham (secondary education starting in the academic year 1980) ; and Songkhla (higher Education starting in the academic year 1980). In 1981 a Thai studies program will be the first M.A. program Launched at Songkhla campus.

In the future the University expects to offer Master of Science and more of Master of Arts programs as well as Doctoral programs in other fields responding to the national needs and according to the University's capacity.

## **Administration of the Graduate School**

### **Administration**

The University Council according to the present University Act appoints a Graduate School Committee comprising Dean of the Graduate School as Chairperson, Deputy Deans as members ; other four members selected from Graduate School Faculty as members, and a secretary. The Graduate School Committee with the assistance of the Advisory Committee carries out the University Council policies relating to graduate studies programs as well as keeps the program standards, approves curricula, and standard of admissions, and supervising the completion of graduate studies requirements by cooperating with other faculties and departments. The Graduate School Committee has been authorized by the University to appoint ad hoc committees to consider special issues when and where necessary and appropriate.

The University appoints an Advisory Committee comprising Vice President for Academic Affairs, Deans of faculties offering instruction in graduate studies, and Directors of institutes and bureaus.

### **Advisory Committee**

Vice President for Academic Affairs: Associate Prof. Dr. Song-Sak Srikalasin

Dean of Faculty of Education: Prof. Dr. Aree Sunhachawee

Dean of Faculty of Humanities: Associate Prof. Pranee Thanachanan

Dean of Faculty of Social Sciences: Assistant Prof. Dr. Anan Chiamchareon

Dean of Faculty of Science: Associate Prof. Dr. Prayong Pong-tongcharoen

Dean of Faculty of Physical Education: Assistant Prof. Samruan Ratanachan

Director of Educational and Psychological Test Bureau

Associate Prof. Dr. Somboon Chitapong

Director of Institute of Research in Behavioral Sciences

Prof. Dr. Chancha Suwanadhat



Director of Central Library:  
Assistance Prof. Dr.Sunthorn Kaewlai

### **Graduate School Committee**

Prof. Dr.Kanda NaThalang,Dean of Graduate School	Chairperson
Prof. Dr.Somporn Buatong	member
Mr. Charoon Komolboon	member
Dr.Tinakorn Nakornsri	member
Dr.Nonglak Wiratchai	member
Dr.Pirom Poonsawat,Deputy Dean of Graduate School at Bangsaen Campus	member
Assistant Prof. Dr.Nibhondh Kinawong, Deputy Dean of Graduate School at Pitsanulok Campus	member
Dr.Kasem Boonon,Deputy Dean of Graduate School at Mahasarakham Campus	member
Assistant Prof.Dr.BanlueThinpang-nga,Deputy Dean of Graduate School at Songkhla Campus	member
Miss Siriyupa Poonswan	Secretary

The Office of the Secretary in the Graduate School carries out the business affairs comprising four sections : Business, Records and Statistics, Class and Test Scheduling and Financial Aids, and Thesis and Dissertation.

The Graduate School collaborates with other faculties that offer instruction in graduate studies programs by approving of instructors, and give advice in order to maintain the standards of education at this level.

The Graduate School is helped by a group of faculty members as well as instructors and professors loaned from other faculties.

### **Faculty Members and Civil Officers in the Graduate School**

Prof. Dr. Kanda	NaThalang
Prof. Dr. Somporn	Buatong
Mr. Charoon	Komolboon
Associate Prof. Dr. Chali	Buripakdi

Assistant Prof. Dr. Pisit Sarawichitr	
Dr. Tinnakorn	Nakornsri
Dr. Nonglak	Wiratchai
Miss Siriyupa	Poonsuwan
Mr. Annop	Bhothisook
Mr. Chalermchai	Muang-ngam
Miss Orawan	Tantcharernrat
Mrs. Krisana	Noksakul
Miss Manee	Sirichairate
Mrs. Jarieng	Pintong
Mrs. Rungrong	Sitongdee
Mrs. Areerat	Na Chiangmai
Mrs. Jintana	Rotkorn
Miss Nonglak	Chyehard
Mrs. Prateung	Prasobsan
Miss Nuanlae	Volashina
Miss Tanavan	Na-Takoutung
Mrs. Yupin	Khunramwong
Mr. Chalam	Kapin-charanon
Mr. Tao	Cham-nak

### **Fees for Master and Doctoral Programs**

1. Application fee (paid once)	100 Baht
2. Registration fee (paid once)	100
3. Insurance for damage (paid once)	200
4. Education fee (per semester)	300
5. Student activities fee (per semester)	40
6. Athletic fee (per semester)	40
7. Tuition fee (per credit)	50
8. Laboratory fee (per hour)	25
9. Late fee payment (per day)	10
10. Fine for late return of library's book (per day, per book)	5
11. Student identification card	5
12. Transcript (per copy)	10
13. Certified letter (per copy)	5

14. Preliminary examination fee	100
15. Comprehensive examination fee	100
16. Registration for thesis	
Master program	300
Doctoral program	500
17. Registration fee for graduation	
Master's Degree	200
Doctoral Degree	200

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# **Regulations Governing Graduate Studies at Srinakharinwirot University 1978**

## **Admissions**

### **Admission Requirements**

Applicants for all master's degree programs must be holders of Bachelor's degree from Srinakharinwirot University or other institutions approved by this university. Applicants for doctoral degrees must hold master's degree from an accredited university or institutions recognized by the Office of University Affairs. All applicants must have good conduct and have sound health.

### **Admission Procedure**

Applicants for all master's degree programs and doctoral programs have to pass a competitive entrance examination of Srinakharinwirot University or in some special cases the University may, by some good reasons select appropriate applicants and admit them to be students.

### **Registration to be Students**

Applicants become legible students after registration. Applicants must submit all required documents and must report to the University registrar by themselves on the dates, at the time and place specified by the University, and pay the various fees as required.

The applicants who cannot come to register to be students on the dates and at the time specified by the University will lose the right to register to be students unless they notify the University in writing by the dates of registration and come to register within seven days after the last day of registration.

### **Academic Regulations**

Srinakharinwirot University operates on a semester hours credit system. An academic year is divided into two semesters. There are 18 weeks in each semester.

A credit is a measure of the quantity of education the student has received. Each course has specified credits.

Srinakharinwirot University operates a credit system on the following basis :

1 credit = 1 hour of lecture a week a semester

**or**

2 hours of laboratory work a week a semester

**or**

3 hours of practicum a week a semester

The number of hours required in practicum may be increased for certain appropriateness.

## **Academic Status**

Students who register for the first time and students who have a cumulative grade point average of 3.00 and over are given **in good standing** status. Students who have a cumulative grade point average of between 2.75 and 2.99 are given **probationary** status. Doctoral students will become full candidates after they have already passed the Comprehensive Examination.

## **Registration of Courses**

The dates and registration procedures for each semester are announced by the University.

Students who do not register for courses in any semester by the dates of registration will lose the right to attend classes unless they have special permission from the Dean of the Graduate School.

The program of courses for which students register must receive the prior approval of their advisers. If a course has prerequisite courses students must complete the prerequisite courses or obtain the approval from Head of Department before registration for the course.

Registration is finalized on the receipt of course fees. Students who pay the fees after the specified dates will be fined.

## **Credit Hours Load**

Students who have in good standing status are required to take a minimum of 9 and not more than 15 credit hours for each semester.

Students who have probationary status are required to take a minimum of 6 and not more than 12 credit hours for each semester.

Students who want to register more or less than the credit load must obtain the approval of the Dean.

Students in their last semester may register less than the minimum credit load without obtaining permission from the Dean.

## **Auditing of Courses**

### **Regular Students**

Audit courses carry no credits; do not count towards degree requirements, and are not include in the credit load. Registration procedure and fee charges are the same as credit courses. Students are not required to take the final examination in audit courses. If class attendance is 80% or over, courses are entered in the student's record with the word "audit". Students have to state in the registration form which courses are audit courses.

### **Others**

Any person may attend a course as an auditor providing that the University considers he has sufficient educational background. An auditor must conform to the same regulations as the regular students. Fees and tuition charges have to be paid as stated in the University regulations.

## **Cancelling and Adding Courses and Withdrawal from Courses.**

Cancelling, adding courses or withdrawal from courses must be done with the approval of the student's adviser and with the permission of the Dean of the Graduate School. The Dean will then inform the University registrar.

Permission for cancelling courses and adding courses must be obtained within the first two weeks of the semester with the approval of adviser and permission of the Dean of Graduate School in accordance with load of credit hours requirement.

Permission to withdrawal from courses must be obtained within the first nine weeks of the semester. In special circumstances the Dean may give the student permission to withdraw from a course after the ninth week; permission will also be granted on the condition that he withdraws from all the courses in which he has registered.

### **Refunding of Course Fees**

Students who withdraw or cancel a course because the University, by some necessity, announces not to offer that course for the whole semester can refund all the course fees.

Students who cancel a course within the first two weeks of the semester can be refunded all the fees.

Students who cancel a course after the first two weeks of a semester cannot be refunded the course fees.

### **Attendance**

In order to be eligible to take his final examination a student must have attended at least 80% of the total class hours.

### **Grading**

Letter gradings are used and have the following values and meanings :

Grade	Meaning	Grade Point
A	Excellent	4
B	Good	3
C	Average	2
D	Poor	1
E	Failure	0
I	Incomplete	—
W	Withdrawal	—

A grade "E" is assigned for failure of the final examination, and also in the following circumstances :

- 1) The student fails to take the final examination for reasons not approved by the Dean of Graduate School.
- 2) The student's class attendance is less than 80%.
- 3) The student fails to observe the examination regulations.

A temporary grade "I" is given in the following circumstances:

1) The student has a class attendance of over 80% but fails to take the final examination because of sickness or other circumstances beyond his control. In this case the permission is made by the Dean.

2) The student fails to complete all the required work and assignments in a course through no fault of his own. In this case a decision will be jointly made by the instructor and Head of Department.

Students receiving grade "I" should arrange with their instructors both to make up their unfinished work and receive a new final grade not later than the end of the next semester, provided they are eligible to enroll. Otherwise the grade "I" will automatically be changed to grade "E".

A grade "W" is given in the following circumstances :

1) The Dean of Graduate School gives the student permission to withdraw from the course, when the withdrawal is within the ninth week of the semester.

2) The student receives permission to withdraw from the University for logical specified reasons.

3) As a punishment, the student is ordered to withdraw temporarily from the University.

4) The student who received an "I" grade because of sickness and who, at the end of the "I" grade time limit, has still not recovered, may receive permission to obtain a "W" grade from the Dean of Graduate School.

A "P" grade or an "F" grade is given for the following examinations : preliminary examination, foreign language examination, comprehensive examinations, and oral examination on doctoral



dissertation. P means pass. F means fail. A "P.D." grade may be given for dissertation meaning pass with distinction.

## **Credit Count**

Only credit courses are used in computing grade point average. If the student repeats a course or has a substitute, the grade and point of that course must be used in computing the grade point average.

In computing the grade point average to meet the requirements of the program, only the credits of the pass courses are used.

The grade point average for each semester is the result of adding the multiples of the number of credit hours and the grade points divided by the sum of credits taken in that semester.

The cumulative grade point average is the result of adding the multiples of the number of credit hours and the grade points of all the courses the student has taken from the first to the last semester divided by the sum of all the credits earned.

Only courses with grades other than "I" are used in computing the grade point average for each semester.

## **Repeating Courses**

With the approval of the Dean of Graduate School, students may, if they wish, repeat a course in which they received "C" grade/.

Students who received "D" or "E" grade are required either to repeat the course with the permission of the Dean of Graduate School, or take a similar course in the same subject area.

A doctoral candidate who receives a "C" grade or lower in required courses must repeat the course or take a similar course in the same subject area with the permission of the Dean of Graduate School.

## **Classification of Student Academic Status**

Classification of student academic status is to consider whether a student it is "in good standing" or "probationary" status.

Classification of student academic status will be done at the end of each semester except for first year students whose academic

status will be classified at the end of their second semester. The Registrar will inform the probationary students and their academic advisers as early as possible.

### **Failure to Observe the Examination Regulation**

Failure to observe the examination regulations might result in the following :

- 1) Failing that course.
- 2) Failing that course and withdrawal from courses next semester.
- 3) Dismissal from the University.

### **Withdrawal from the University**

A student may ask the Dean of Graduate School for permission to withdraw from the University in the following circumstances:

1) Receiving an international exchange, or other scholarship approved by the University.

2) Having a severe illness that prevents attendance at classes for a period which will total at least 20% of the semester hours. An official letter of a doctor, who is employed either in a government hospital or a clinic approved by the Ministry of Health, is required.

3) Having personal reasons, and has studied at the University for at least one semester.

Request to the Dean of Graduate School for withdrawal from the University must be made at the earliest possible opportunity. Confirmation of the Dean's decision is given to the registrar.

Withdrawal is granted for a period of one semester only at a time. A new application must be made for any further period of withdrawal.

For the regular student all periods of withdrawal will count as part of the time allowed for completion of the course of studies.

The educational fee must be paid for the semester during which withdrawal is granted. Otherwise the student will be dismissed from the University.

At the end of the period of withdrawal the student wishing to continue his studies must apply to the Dean of Graduate School for re-admission. The Dean's decision is given to the registrar.

## **Transfer of Campuses**

Students passing the entrance examination or having been selected to study at any campus must study at that campus. The University will not allow students to transfer to other campuses except in a very necessary case.

The time allowed for completion of the course of studies for transferred students is counted from the time they first began their course work at their former campuses.

## **Changing of Major**

Students passing the entrance examination to study in any major must study that major. If changing of major is desired, students must sit for a new entrance examination and the earned credits are null.

Students who have studies in any major for four years and have not completed the course of studies cannot sit for the new entrance examination of the same major.

Srinakharinwirot University may accept the transfer of students from other institutions of higher learning which have the equivalent status.

## **Dismissal**

A student is dismissed in the following circumstances.

- 1) Does not register in the first semester to be a regular student.
- 2) After the first semester, fails to pay the educational fee to keep the student status.
- 3) Is found to lack the appropriate admission qualifications.
- 4) Has a cumulative grade point average of less than 2.75 or has "C" grade or lower more than 8 credit hours.
- 5) Has probationary status and holds the cumulative grade point average less than 2.80 for two consecutive semesters.
- 6) Is given probationary status for a fourth consecutive semester and not able to diminish the probation.
- 7) Is unable to complete the program within four years or has

the cumulative grade point average less than 3.00.

- 8) Is guilty of a serious violation of the examination regulations.
- 9) Has a very bad conduct while being a regular student.
- 10) Is guilty of a serious offence against the University regulation.

### **Preliminary Examination**

The University will appoint a committee consisting of appropriate individuals to execute the preparing and grading of the preliminary examination for doctoral students.

Students who have completed the course work requirements and have been in residence for no less than one semester are eligible to take preliminary examination.

Students wishing to take the preliminary examination must inform the Graduate School, through their advisors, in writing within the fourth week of the semester in which they want to take the examination.

The University will organize the preliminary examination within the fifteenth week of each semester when there is a request by eligible students.

### **Foreign Language Examination**

Every doctoral candidate is required to sit for and pass a foreign language test usually an English test. The University will appoint a committee comprising appropriate individuals for this purpose. A student who wishes to take the test may inform the Graduate School in writing through his advisor within the fourth week of the semester in which he wants to take the test. The test will be held in the eighth week of that semester. A foreign student is required to take a test of a language which is not his mother tongue.

### **Comprehensive Examination**

The University will appoint a committee consisting of appropriate individuals to execute the preparing and grading of the comprehensive examinations both at the master and doctoral levels.

The University will arrange a comprehensive examination every

semester when there is a request by eligible students.

Students who have completed the course work requirements and have sufficient credit hours are eligible to take the comprehensive examination in that semester.

Students wishing to take the comprehensive examination in any semester must apply through their advisors to the Graduate School within the fourth week of that semester.

Master degree students who fail in some areas of the comprehensive examination will retake the examination in those areas only, whereas the doctoral candidates will retake the whole examination.

Students can take the comprehensive examination three times. For doctoral students, apart from the above regulations, they must have two semesters in residence before they are eligible for comprehensive examination which will be held in the fifteenth week of each semester when there is a request by eligible students. Those who have already passed the comprehensive examination will fully become doctoral candidates.

## **Thesis**

After completing not less than 20 credits of course work a master's degree student can submit the thesis title, names of advisory committee, and detailed outline to the Graduate School for approval through the Faculty Committee.

In submitting the thesis title, committee, and detailed outline the student has to do the following :

Complete the Application for Approval of Thesis Title, Committee, and Detailed Outline Form and submit it to the Faculty Committee on Thesis Proposal for consideration to get the Graduate School approval.

The thesis advisory committee consists of a chairman and a member. In a special case one more member may be appointed. This committee must receive the approval from the Graduate School.

When a change in the thesis title or committee is desired, the student must submit a request to the Graduate School.

In order to complete the course of studies the student has to

submit the detailed outline of his thesis at least three full months prior to sitting for a thesis oral examination.

## **Dissertation**

After completing not less than 25 credits of course work, a doctoral student may submit the dissertation title, names of advisory committee and detailed outlines to the Graduate School for approval.

The dissertation committee must consist of three person : the chairman and 2 members.

The detailed outline of the dissertation must be presented for discussion and approval by the Committee on Dissertation Proposal.

When the proposal has been discussed and improvements have been made as suggested, the proposal should be submitted to the Graduate School for formal approval.

When a change in the dissertation title or committee is desired, the student must submit a request to the Graduate School for approval.

In order to complete the course of studies, the student has to submit the detailed outlines of the dissertation at least three full months prior to sitting for an oral examination.

## **Thesis Oral Examination**

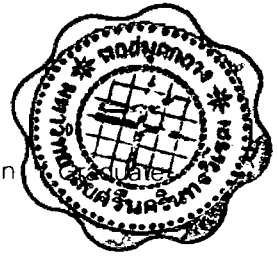
After a student has completed the thesis and the committee has corrected it, the committee chairman makes an appointment with the student to have the thesis oral examination.

The Graduate School will appoint a committee for thesis oral examination consisting of the thesis committee and one more member from the student's major or related department.

For dissertation oral examination, a committee must consist of the dissertation committee and one more expert in that field or related area from other institution as an external examiner.

The student must receive special approval if he wants to sit for the thesis oral examination when the committee members cannot all be present.

The chairman of the thesis or dissertation oral examination



committee reports the thesis grade directly to the Dean of the School.

## **Application for Graduation**

Students must apply for graduation in the semester in which they expect to complete the requirements for their degrees. Application should be sent to the registrar within one month starting from the first day of the semester.

Students must meet all graduation requirements as follows :

- 1) Have not less than two semesters of residence at this university.
- 2) Have sufficient credit hours required for the course of studies.
- 3) Have the cumulative grade point average of not less than 3.00.
- 4) Have passed the comprehensive examination.
- 5) Have passed the preliminary examination in the case of being a doctoral student.
- 6) Have passed a foreign language examination in the case of being a doctoral student.

## **Degree Conferment**

The University will consider students who have applied for graduation and have good conduct for University Council approval to confer the Master of Education Degree by using the following criteria :

- 1) Have fulfilled course work requirement with grade point average of not less than 3.00 and passed comprehensive examination.
- 2) Have completed the thesis with not less than grade 'B' and passed the thesis oral examination.
- 3) Have submitted the complete copies of thesis as required by the University.

For the conferment of Doctor of Education degree, the University will consider the candidate who has successfully completed the dissertation, passed the oral examination and passed both comprehensive and foreign language examinations.





**PART II**

**PROGRAMS OF STUDY**

# Programs of Study

## Structure of Master of Education Programs

The structure of Master of Education curriculum consists of at least 48 semester credit hours of various courses and it must be completed within 4 years.

Course requirements consist of the following areas :

	Hours	Credit
<b>1. Foundations of Education Courses</b>		12
<b>1.1 Required Courses</b>		9
At least 6 credit hours are to be selected from these courses :		
<b>Ed 501</b> Philosophical Foundations of Education		2
<b>Ed 502</b> Socio-Economic Foundations of Education		2
<b>Ed 503</b> Psychological Foundations of Education		2
<b>Ed 504</b> Historical Foundations of Education		2
<b>Ed 505</b> Comparative Education		2
<b>Ed 506</b> Technological Foundations in Education		2
<b>Ed 507</b> Professional Ethics		2
Students must fulfill a research course :		
<b>Res 521</b> Research Methods in Behavioral and Social Sciences		3
<b>1.2 Related Elective Courses</b>		3
3 credit hours are to be selected from these courses :		
<b>Stat 511</b> Statistical Methods for Research		3
<b>Stat 513</b> Inferential Statistics		3
<b>2. Majors :</b> At least 27 credit hours according to the requirements of each major must be fulfilled. There are 22 majors as follows :		
<b>2.1 Elementary Education.</b>		
<b>2.2 Secondary Education</b>		
<b>2.3 Higher Education</b>		
<b>2.4 Educational Administration</b>		
<b>2.5 Guidance</b>		
<b>2.6 Educational Measurement</b>		
<b>2.7 Educational Technology</b>		
<b>2.8 Library Science</b>		

2.9 Developmental Psychology

2.10 Social Psychology

2.11 Educational Psychology

2.12 Experimental Psychology

2.13 Thai

2.14 English

2.15 Geography

2.16 History

2.17 Chemistry

2.18 Biology

2.19 Physics

2.20 Mathematics

2.21 Physical Education

2.22 Special Education : Education for the hearing Impaired

**3. Free Elective Courses :** At least 3 credit hours of free elective is required. The student may take any appropriate courses according to his personal preference with the guidance and approval of his academic advisor.

**4. Thesis** . 6 hours credit

The student is required to write a thesis relating to education or the academic field or both

If the student who takes 27 credit hours or more in each major numbered 2.13 to 2.22 wants to write a thesis on education the thesis must be related to his major field.

## **Course Description of Foundations of Education Courses**

- Ed 501** Philosophical Foundations of Education 2 credits  
A study of philosophical system and educational thoughts of philosophers, educators, and important thinkers, both in Thailand and in foreign countries ; thoughts of eminent figures of various philosophies of education, and the application of philosophy to Thai education.
- Ed 502** Socio Economic Foundation of Education 2 credits  
A study of education in relation to the socio-economic realities of the Thai society ; man's cultural heritage and the function of education in preserving and improving it ; emphasis on social structure and the function of the school ; the relationship of the school to other social systems in its external environment, such as the family, the community, and various economic, religious, and political organizations.
- Ed 503** Psychological Foundations of Education 2 credits  
A study of areas in psychology with direct relation to educational process : human development, theories of learning, motivation, social psychology, individual differences, and personality ; emphasis on the application of the theories to teaching and learning process.
- Ed 504** Historical Foundations of Education 2 credits  
A study of the history of Western and Eastern educational experiences ; major influential determinants as related to educational systems in such societies including an evolution of

- educational ideas derived from those Western and Eastern cultures.
- Ed 505** Comparative Education 2 credits  
 A study of methodology and assumptions in comparative education as well as a comparative study of the contemporary educational systems in selected countries ; an analytical study of significant forces affecting the development of existing educational systems.
- Ed 506** Technological Foundations in Education 2 credits  
 An exploration and analysis of contributions technology has to the success and effectiveness of various human enterprise systems and the challenge of automation and new media in society to education decision and reform
- Ed 507** Professional Ethics 2 credits  
 A study of the is-ought dichotomy ; the meaning of "virtues" ; the meaning of "values" for teaching profession ; moral values and ethical values ; the consideration and selection of appropriate values for the teaching profession ; a consideration of contemporary moral and ethical values for Thai teachers including those formulated by the Teachers Council or other professional institutions that might be improved and adapted for the teaching profession.
- Res 521** Research Methods in Behavioral and Social Sciences 3 credits  
 Nature of research ; initial stages in a research project ; defining research problem, research hypothesis ; nature of data ; tools and techniques of collecting data ; construction of research tools, sampling techniques, collection and collation of data ; types of research : historical, descriptive, experiment design ;

- analysis of data ; interpretation, conclusion and generalization ; research report.
- Stat 511** Statistical Methods for Research 3 credits  
A review of basic concepts of descriptive statistic, probability, random variables, sampling theory, testing statistical hypothesis, analysis of variance and analysis of covariance, regression analysis and correlation.
- Stat 513** Inferential Statistics 3 credits  
Nature of statistical data, frequency distribution, central tendencies, measures of variability ; statistics vs. parameter of a distribution ; distribution functions ; normal, t, F,  $\chi^2$  ; introduction to sampling theory ; marginal p.d.f., stochastic independence, random sampling ; statistical inference ; statistical hypotheses ; test, level of significance, power function, difference between means ; small sample : t - distribution and its implication ; correlation : concept, method, interpretation, regression, multivariate analysis ; correlation other correlational measures : rank biserial, p-biserial, tetrachoric phi ; selected non-parametric statistics : binomial test, sign test, Fisher exact probability test, Mann - Whitney U-test etc.

# Elementary Education

## Objective

To provide professional preparation that will enable the student to be knowledgeable and capable of developing teaching and a research work relating to elementary education.

## Structure of the Program

### Requirements

- |   |                 |
|---|-----------------|
| 1. Foundations of Education Area        | 12 credit hours |
| 2. Major Area not less than             | 27 credit hours |
| 2.1 Required Courses                    | 17 credit hours |
| 2.2 Elective Courses not less than      | 3 credit hours  |
| 2.3 Supplementary Courses not less than | 3 credit hours  |
| 3. Free Elective Area not less than     | 3 credit hours  |
| 4. Thesis                               | 6 credit hours  |

### Meaning of the Middle Digits of the Code Numbers

0 refers to general foundations

1 refers to theories and principles

2 refers to teaching

3 refers to teaching

4 refers to administration

5 refers to problems

6 refers to student activities

7 refers to practicum

8 refers to seminar

9 refers to independent study or research

### Course Requirements (17 credits)

- |           |  |           |
|-----------|--|-----------|
| El Ed 511 | Curriculum and Instruction Development<br>in Elementary Education                  | 3 credits |
| El Ed 521 | Problems and Techniques in Teaching Thai<br>Language Arts in the Elementary School | 2 credits |
| El Ed 522 | Problems and Techniques in Elementary<br>Mathematics Instruction                   | 2 credits |
| El Ed 523 | Problems and Techniques in Teaching<br>Life Education                              | 2 credits |
| El Ed 524 | Problems and Techniques in Teaching  |           |

	Character Education	2 credits
El Ed 525	Problems and Techniques in Teaching Work Education	2 credits
El Ed 641	Elementary School Administration and Supervision	2 credits
El Ed 681	Seminar on Problems and Research in Elementary Education	2 credits
<b>Elective</b> (6 credits at least)		
El Ed 531	Measurement and Evaluation in the Elementary School	2 credits
El Ed 561	Behaviour and Development of the Elementary School Child	2 credits
El Ed 541	Roles of Elementary Schools in the Community	2 credits
El Ed 601	Development of Teaching Competencies in Elementary School Teachers	2 credits
El Ed 625	Critique of Children Literature	2 credits
El Ed 741	Elementary Education in Southeast Asian Countries	2 credits
<b>Related Elective</b> (4 credits at least)		
Guid 532	Guidance in Elementary School	3 credits
Th Ed 521	Thai Language Arts in Elementary School	3 credits
Math Ed 521	Mathematics in Elementary Schools	3 credits
Sc Ed 521	Science in Elementary Schools	3 credits
Soc Ed 523	Innovation, Technology and Change in Social Studies Instruction	3 credits
E C Ed 511	Curriculum and Teaching in Early Childhood Education	3 credits
E C Ed 531	Creative Activities for Pre - School Children	2 credits
E C Ed 532	Children and Dramatic Arts	2 credits
E C Ed 541	Parent Education	2 credits
Con Ed 501	Adult Education and Problems of Thai Society	3 credits



Con Ed 521 Techniques, Resources and Mass Media  
in Adult Education 3 credits

### **Course Description**

EI Ed 511 Curriculum and Instructional Development  
in Elementary Education 3 credits  
Studies of philosophical, psychological, and  
social bases for curriculum development ;  
current practice in elementary education  
curriculum development and evaluation ;  
processes of change in elementary school  
curriculum and instruction.

EI Ed 521 Problems and Techniques in Teaching Thai  
Language Arts in the Elementary  
School. 2 credits  
Review of principles of teaching language arts  
at the elementary level ; study the curriculum  
and problems in teaching language arts ;  
principles in the elementary language text  
selection, recent researches and techniques  
contribute to the four areas of teaching language  
arts ; application of the language arts instruction  
to the development of the learners.

EI Ed 522 Problems and Techniques in Elementary  
Mathematics Instruction 2 credits  
Review of principles of mathematics instruction  
at the elementary level, study of problems in  
teaching modern mathematics with application  
to the local areas ; recent researches and  
techniques contribute to teaching efficiency ;  
study of elementary school mathematics and  
the improvement of the curriculum.

EI Ed 523 Problems and Techniques in Teaching Life  
Education 2 credits  
Study of the curriculum and the curriculum  
components in life education ; problems and  
needs of mankind in general and local Thai

- in particular ; emphasis on the education for the quality of life, including methods and techniques in achieving the educational objectives.
- EI Ed 524** Problems and Techniques in Teaching Character Education 2 credits  
Study of the curriculum and the curriculum components in character education ; principles and sequences in character formation ; integration of art music and physical education as a means to develop character and aesthetics.
- EI Ed 525** Problems and Techniques in Teaching Work Education 2 credits  
Study of the curriculum and the curriculum components in work and vocational basis of education ; principles and theories in the development of work habits, attitudes, thinking process ; recent researches in work education ; methods and techniques for achieving the educational objectives.
- EI Ed 641** Elementary School Administration and Supervision 2 credits  
Review principles of elementary education , administrative responsibilities and leadership qualities ; principles of elementary school organization and administration ; the national administrative policies : review of supervision principles study of situations and problems to improve the educational supervision in various areas of responsibilities.
- EI Ed 681** Seminar on Problems and Research in Elementary Education 2 credits  
Review of existing situations in the elementary education ; study of problems related to the organization ; situations in Asia and the Asian elementary school; studies of current researches and the application of research project outline

- in the field of elementary education for criticism in the seminar.
- EI Ed 601** Development of Teaching Competencies in Elementary School Teachers. 3 credits  
 A study of teaching behavior in the elementary school ; an analysis of curriculum and instruction ; application of research finding to competencies in elementary schoolteacher instruction, develop instruction and techniques in achieving the educational objectives.
- EI Ed 531** Measurement and Evaluation in the Elementary school 2 credits  
 Roles of evaluation in the elementary school, measurement as part of the evaluation, characteristic need to measure ; instruments, quality and construction of instruments, score and transformation of scores for use, objectives and philosophy of evaluation for elementary schools teach.
- EI Ed 541** Roles of School in the Community 2 credits  
 Study of duty and responsibilities of elementary schools to the community in the areas of education, community resources, tradition and cultures, study of administrative and social agencies in the community ; relationship problems and obstacles in building relationship, proposal of problem solving, case studies.
- EI Ed 625** Critique of Children's Literature 2 credits  
 Study of children's literature in its worth, types and forms, and criteria : literature translated and adapted from foreign lands ; desired vs market literature ; society's responsibilities ; promotion of quality literature ; reaching out to the children
- EI Ed 741** Elementary Education in Southeast Asian Countries 2 credits

- Historical and geographical, ethnic, cultural heritage and socio - economic background as basis for elementary education in . Southeast Asian countries; movement; research and advance ideas in elementary education among SEA countries.
- EI Ed 561** Behaviour and Development of the Elementary School Child 2 credits  
An analysis of selected sources of information about the behaviour and development of the elementary school child and the implication this information has for teaching the elementary school child.
- Guid 532** Guidance in Elementary School. 3 credits  
The functions of guidance in elementary school, organization and administration of the guidance program at this level emphasising on student's social and emotional adjustment, introduction to the use of techniques for understanding the individual and working with group. Practical guidance problems in elementary schools are discussed.
- Th Ed 521** Thai Language Arts in Elementary Schools 3 credits  
Analysis of curriculum and teaching Thai language arts in elementary schools ; practice in the development of curriculum instructional materials.
- Math Ed 521** Mathematics in Elementary Schools 3 credits  
Analysis of curriculum and instruction of mathematics of elementary schools ; practice in the development of curriculum instructional materials.
- Sc Ed 521** Science in Elementary Schools 3 credits  
Analysis of curriculum and teaching in elementary school science ; practice in the development

	of curriculum instructional materials.	
<b>Soc Ed 523</b>	Innovation, Technology and Change in Social Studies Instruction	3 credits
	An analytical study of trends in social studies instruction based on economic, social, political, psychological, cultural data or research findings, and national security policies ; an innovative and applicable proposal with technology for changes in social studies instructional development.	
<b>E C Ed 511</b>	Curriculum and Teaching in Early Childhood Education	3 credits
	A critical study of major theories relevant to contemporary thought and research in early childhood education and their implications in the development of curriculum and teaching the pre - school children.	
<b>E C Ed 531</b>	Creative Activeities for Pre-School Children	2 credits
	Principles and practices in selecting and organizing activities for the development of creativity in language, music, arts and nature study of pre - school children ; utilization of local materials for the learning activities.	
<b>E C Ed 532</b>	Children and Dramatic Arts	2 credits
	Theories and techniques of acting as methods of personal development in pre - school children ; practice in organizing dramatic plays for children.	
<b>E C Ed 541</b>	Parent Education	2 credits
	Observation and analysis of children’s problems in day care centers as a result of home training ; proposal of parent education project to bridge the gap between home and day care centres ; roles of teacher in educating parents of pre - school children.	
<b>Con Ed 501</b>	Adult Education and Problems of Thai society	3 credits

Identifying existing socio-cultural problems of the Thai society in both urban and rural areas ; developing and evaluating programs or models designed to solve the problems.

**Con Ed 521**

Techniques, Resources, and Mass Media in Adult Education 3 credits  
Philosophy of adult education, adult and adult psychology ; social change and change process, teaching techniques ; uses of community resources and mass media.

# Secondary Education

## Objective

To provide professional preparation that will enable the student to be knowledgeable and capable teaching and becoming a leader in improving secondary education learning and teaching.

## Structure of the Program

### Requirements

- |                                       |                 |
|---------------------------------------|-----------------|
| 1. Foundation of Education Area       | 12 credit hours |
| 1. Foundations of Education Area      | 12 credit hours |
| 2. Major Area not less than           | 27 credit hours |
| 2.1 Required Courses                  | 10 credit hours |
| 2.2 Electives Courses                 |                 |
| 2.2.1 Instruction Group not less than | 12 credit hours |
| 2.2.2 General Group not less than     | 5 credit hours  |
| 3. Free Elective Area not less than   | 3 credit hours  |
| 4. Thesis                             | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

0 refers to general foundations

1 refers to theories and principles

2 refers to teaching

3 refers to teaching

4 refers to administration

5 refers to problems

6 refers to student activities

7 refers to practicum

8 refers to seminar

9 refers to independent study or research

### Compulsory (10 credits)

Sec Ed 511	Curriculum and Instruction Development in Secondary Education	3 credits
Sec Ed 541	Advanced Studies in Secondary School Organization and Supervision	3 credits
Sec Ed 561	Adolescent Behaviour and Development	2 credits
Sec Ed 581	Seminar on Problems and Research	

	in Secondary Education	2 credits
<b>Elective</b> (17 credits)		
	Select from :	
	Teaching group	12 credits at least
	General group	5 credits at least
<b>Teaching group</b> (12 credits)		
	Select from the following courses :	
<b>Group 1 Teaching Thai</b>		
Th Ed 511	Theory and Practice in Thai Language Arts	3 credits
Th Ed 531	Thai Language Arts in Secondary Schools	3 credits
Th Ed 571	Workshop for Teachers of Thai Language Arts	3 credits
Th Ed 581	Seminar on Problems and Research in Teaching Thai	3 credits
<b>Group 2 Teaching Mathematics</b>		
Math Ed 511	Theory and Practice in Mathematic Curriculum Development	3 credits
Math Ed 531	Mathematics in Secondary Schools	3 credits
Math Ed 571	Workshop for Mathematic Teachers	3 credits
Math Ed 581	Seminar on Problems and Research in Teaching Mathematics	3 credits
<b>Group 3 Teaching Science</b>		
Sc Ed 511	Theory and Practice in Science Curriculum Development	3 credits
Sc Ed 531	Science in Secondary Schools	3 credits
Sc Ed 571	Workshop for Science Teachers	3 credits
Sc Ed 581	Seminar on Problems and Research in Teaching Science	3 credits
<b>Group 4 Teaching Social Studies</b>		
Soc Ed 511	Theory and Practice in Social Studies Curriculum Development	3 credits
Soc Ed 521	Theory and Behaviour of Social Studies Instruction	3 credits
Soc Ed 522	Techniques of Social Studies Instruction	



	Evaluation	3 credits
<b>Soc Ed 523</b>	Innovation, Technology and Change in Social Studies Instruction	3 credits
<b>Group 5 Teaching English</b>		
<b>Eng Ed 511</b>	Curriculum and Teaching of English in Secondary Schools	3 credits
<b>Eng Ed 531</b>	Problems and Techniques in Teaching English	3 credits
<b>Eng Ed 571</b>	Workshop for English Teachers	3 credits
<b>Eng Ed. 581</b>	Seminar on Research in Teaching English	3 credits
<b>General group</b>		5 credits at least
<b>Sec Ed 551</b>	Principles and Problems in Vocational Education	2 credits
<b>Sec Ed 522</b>	Education and Self-Employment	2 credits
<b>Ed Adm 603</b>	Secondary School Administration	2 credits
<b>Guid 533</b>	Guidance in Secondary School	3 credits
<b>Con Ed 501</b>	Adult Education and Problems of Thai Society	3 credits
<b>Con Ed 521</b>	Techniques, Resources, and Mass Media in Adult Education	3 credits
<b>Con Ed 571</b>	Practicum in Adult Education	3 credits
<b>E C Ed 511</b>	Curriculum and Teaching in Early Childhood Education	3 credits

### **Course Description**

<b>Sec Ed 511</b>	Curriculum and Instructional Development in Secondary Education	3 credits
	Studies of philosophical, psychological, and social bases for curriculum development ; current practice in secondary education; curriculum development and evaluation ; processes of change in secondary school curriculum and instruction.	
<b>Sec Ed 541</b>	Advanced Studies in Secondary Organization and Supervision	3 credits
	Organization, administration, and supervision in the secondary school ; characteristics and	

- competencies for administrators, and supervisors ; personnel management ; teaching and learning activities ; school business affairs ; building and ground ; and public relations.
- Sec Ed 561** Adolescent Behaviour and Development 2 credits  
Research and theory related to adolescents in the intellectual, physical, social-personal, and emotional areas of development
- Sec Ed 551** Principles and Problems in Vocational Education 2 credits  
Vocational education in Thailand and in some developed and developing countries ; vocational interest of nowadays youth ; economic and social problems as factors influencing vocational choice ; theories of vocational education ; vocational guidance.
- Sec Ed 552** Education and self Employment 2 credits  
A study of employment in Thai society ; trend in future employment ; attitude conducive to self - employment ; reading of research on promoting Thai youth's interest in self - employment.
- Sec Ed 581** Seminar on Problems and Research in Secondary Education 2 credits  
Studies of problems in secondary education and application of research in secondary education.
- Ed Adm 603** Secondary School Administration 2 credits  
An overview of basic principles in secondary school administration ; roles of secondary school administrators ; trends in the administration of the changing secondary schools including standard criteria for effective secondary schools in Thailand .
- Guid 533** Guidance in Secondary School 3 credits  
The functions of guidance in secondary

- school ; organization and administration of the pupil personnel services emphasising on student's life adjustment and career development, methods of identifying guidance needs of secondary school students ; an examination of current guidance programs and problems in schools.
- Con Ed 501** Adult Education and Problems of Thai society 3 credits  
Identifying existing socio-cultural problems of the Thai society in both urban and rural areas ; developing and evaluating programs or models designed to solve the problems.
- Con Ed 521** Techniques, Resources, and Mass Media in Adult Education 3 credits  
Philosophy of adult education, adult and adult psychology ; social change and change process, teaching techniques ; uses of community resources and mass media.
- Con Ed 571** Practicum in Adult Education 3 credits  
Supervised field work in community programs for out-of-school youths and adults.
- E C Ed 511** Curriculum and Teaching in Early Childhood Education 3 credits  
A critical study of major theories relevant to contemporary thought and research in early childhood education and their implications in the development of curriculum and teaching the pre - school children.
- Th Ed 511** Theory and Practice in Thai Language Arts Curriculum Development 3 credits  
An analytical study of structures of Thai language arts and curriculum development ; practice in Thai language arts curriculum evaluation.
- Th Ed 531** Thai Language Arts in Secondary Schools 3 credits

- A study of Thai language arts in secondary schools ; problems in teaching and trends in language arts teaching.
- Th Ed 571** Workshop for Teachers of Thai Language Arts 3 credits  
Practice in the development of competencies in teaching and supervision of Thai language arts ; a critical study of instructional materials ; preparation of instructional materials.
- Th Ed 581** Seminar on Problems and Research in Teaching Thai 3 credits  
An analytical study of problems and research in teaching Thai language arts ; proposal of projects to solve problems based on research findings and learning theories.
- Math Ed 511** Theory and Practice in Mathematic Curriculum Development 3 credits  
An analytical study of structure and concepts in mathematics, development of mathematic curriculum ; practice in mathematic curriculum evaluation
- Math Ed 531** Mathematics in secondary schools 3 credits  
A study of secondary school mathematics ; problems in teaching ; and trends in mathematic teaching.
- Math Ed 571** Workshop for Mathematic Teachers 3 credits  
Practice in the development of competencies in teaching and supervision of mathematics ; a critical study of mathematics instructional materials ; preparation of instructional materials.
- Math Ed 581** Seminar on Problems and Research in Teaching Mathematics. 3 credits  
An analytical study of problems and research in teaching mathematics in schools ; proposal of projects to solve problems based on research findings and learning theories.

- Sc Ed 511** Theory and Practice in Science Curriculum Development 3 credits  
An analytical study of structure and concepts in science ; current practices in science curriculum development ; practice in science curriculum development and evaluation.
- S Ed 531** Science in Secondary Schools 3 credits  
A study of secondary school science ; problems in teaching ; and trends in teaching science
- Se Ed 571** Workshop for science Teachers 3 credits  
Practice in the development of competencies in teaching and supervision of school science ; a critical study of instructional materials ; preparation of instructional materials.
- Sc Ed 581** Seminar on Problems and Research in Teaching Science 3 credits  
An analytical study of problems and research in teaching science in schools ; proposal of projects to solve problems based on research finding and learning theories.
- Soc Ed 511** Theory and Practice in Social Studies Curriculum Development 3 credits  
An analytical study of structure, concepts, principles, theories, and development of social studies curriculum in general and in Thai schools ; practice in social studies curriculum development, and instructional material design.
- Soc Ed 521** Theory and Behavior of Social Studies Instruction 3 credits  
An analytical study of trends in teaching social studies, learning behavior, methods of teaching social studies ; practice teaching and evaluation evaluating social studies in schools.
- Soc Ed 522** Techniques of Social Studies Instruction Evaluation 3 credits  
An analytical study of concepts and principles of social studies instruction evaluation, instru-

- ments, and test designs, their reliability and validity.
- Soc Ed 523** Innovation, Technology, and Change in Social Studies Instruction 3 credits  
(See page 33)
- Eng Ed 511** Curriculum and Teaching of English in Secondary Schools 3 credits  
Studies of curriculum, textbooks, supplementary books and method of teaching English in secondary schools ; trends in teaching English as a foreign LANGUAGE
- Eng Ed 531** Problems and Techniques in Teaching English 3 credits  
Studies of problems of teaching English in schools ; techniques in solving problems and improving English teaching PTD
- Eng Ed 571** Workshop for English teachers 3 credits  
Practice in the development of competencies in teaching and supervising English teaching
- Eng Ed 581** Seminar on Research in Teaching English. 3 credits  
Studies of research findings on teaching English as a foreign language with a view to apply in the improvement of teaching English in schools.

# Higher Education

## Objectives

1. To provide professional preparation that will enable the student to teach and supervise higher education student teaching and practicum with sufficient knowledge, insight, and moral standards.
2. To provide professional preparation for higher education curriculum and instruction developers.
3. To provide professional preparation that will enable the student to do research on problems relating to the operation or administration development of institutions of higher learning.

## Structure of the Program

### Requirements

1. Foundations of Education Area 12 credit hours
2. Major Area not less than 27 credit hours
  - 2.1 Required Courses 14 credit hours
  - 2.2 Electives Courses 13 credits from the following :
    - a. Major Related Courses
    - b. Supplementary Major Courses
3. Free Elective Area not less than 3 credit hours
4. Thesis 6 credit hours

### Meanings of the Middle Digits of Code Numbers

- 0 refers to general foundations
- 1 refers to theories and principles
- 2 refers to teaching
- 3 refers to teaching
- 4 refers to administration
- 5 refers to problems
- 6 refers to student activities
- 7 refers to practicum
- 8 refers to seminar
- 9 refers to independent study or research

### Compulsory (14 credits at least)

- |           |   |           |
|-----------|---|-----------|
| Hi Ed 511 | Curriculum and Instructional<br>Development in Higher Education | 3 credits |
|-----------|---|-----------|

Hi Ed 540	Management and Organization of Higher Education	3 credits
Hi Ed 560	The College Student and Environment	3 credits
Hi Ed 620	College Teaching	3 credits
Hi Ed 680	Seminar on Problems and Research in Higher Education	2 credits

**Elective** (13 credits at least)

Select one group from either Related Major or Related Elective

**A. Related Major**

<b>Group 1</b>	Curriculum and Instruction	9 credits
Hi Ed 541	Academic Problems in Higher Education	3 credits
Hi Ed 600	Practicum in Higher Education Curriculum Development	3 credits
Hi Ed 601	Innovation and Curriculum Change in Higher Education	3 credits

And select from the following courses to complete the requirements.

Hi Ed 561	College Student Personnel Administration	3 credits
Hi Ed 531	Teacher Education in Thailand	3 credits
Hi Ed 532	Practicum in Teacher Education	3 credits
Hi Ed 533	Research in Instructional Behavior	3 credits
Hi Ed 690	Institutional Research	3 credits
Hi Ed 691	Independent Study	3 credits
Hi Ed 621	Supervision of Teaching and Field Work	3 credits
Hi Ed 562	Practicum in College Student Affairs	3 credits
Psy 515	Organizational Behavior	3 credits
Ed Adm 502	Administrative Theory and Organization	3 credits
Ed Adm 667	System Analysis	3 credits
Guid 511	Group Dynamics	2 credits



<b>Group 2</b>	Personnel and College Student Personnel Administration	9 credits
<b>Hi Ed 542</b>	Nonacademic Personnel Management in Higher Education	3 credits
<b>Hi Ed 543</b>	Business and Financial Management in Higher Education	3 credits
<b>Hi Ed 561</b>	College Student Personnel Administration	3 credits
And select from the following courses to complete the requirements.		
<b>Hi Ed 541</b>	Academic Problems in Higher Education	3 credits
<b>Hi Ed 531</b>	Teacher Education in Thailand	3 credits
<b>Hi Ed 532</b>	Practicum in Teacher Education	3 credits
<b>Hi Ed 533</b>	Research in Instructional Behavior	3 credits
<b>Hi Ed 690</b>	Institutional Research	3 credits
<b>Hi Ed 691</b>	Independent Study	3 credits
<b>Hi Ed 621</b>	Supervision of Teaching and Field Work	3 credits
<b>Hi Ed 562</b>	Practicum in College Student Affairs	3 credits
<b>Hi Ed 600</b>	Practicum in Higher Education Curriculum Development	3 credits
<b>Hi Ed 640</b>	Practicum in Nonacademic Personnel Administration Affairs	3 credits
<b>Psy 515</b>	Organization Behavior	3 credits
<b>Ed Adm 502</b>	Administrative Theory and Organization	3 credits
<b>Ed Adm 667</b>	System Analysis	3 credits
<b>Guid 511</b>	Group Dynamics	2 credits
<b>Group 3</b>	<b>Teacher Education</b>	9 credits
<b>Hi Ed 531</b>	Teacher Education in Thailand	3 credits
<b>Hi Ed 532</b>	Practicum in Teacher Education	3 credits
<b>Hi Ed 533</b>	Research in Instructional Behavior	3 credits
And select from the following courses to complete the requirements.		
<b>Hi Ed 690</b>	Institutional Research	3 credits
<b>Hi Ed 541</b>	Academic Problems in Higher Education	3 credits

<b>Hi Ed 600</b>	Practicum in Higher Education	3 credits
<b>Hi Ed 601</b>	Innovation and Curriculum Change in Higher Education	3 credits
<b>Hi Ed 542</b>	Nonacademic Personnel Management in Higher Education	3 credits
<b>Hi Ed 543</b>	Business and Financial Management in Higher Education	3 credits
<b>Hi Ed 561</b>	College Student Personnel Administration	3 credits
<b>Hi Ed 691</b>	Independent Study	3 credits
<b>Hi Ed 621</b>	Supervision of Teaching and Field Work	3 credits
<b>Hi Ed 562</b>	Practicum in College Student Affairs	3 credits
<b>Hi Ed 640</b>	Practicum in Nonacademic Personnel Administration Affairs	3 credits
<b>Psy 515</b>	Organizational Behavior	3 credits
<b>Ed Adm 502</b>	Administrative Theory and Organization	3 credits
<b>Ed Adm 667</b>	System Analysis	3 credits
<b>Guide 511</b>	Group Dynamics	2 credits

#### **B. Related Elective**

Select one group of not less than 13 credits from the following :

##### **1. Teaching of Thai**

<b>Th Ed 511</b>	Theory and Practice in Thai Language Arts Curriculum Development	3 credits
<b>Th Ed 521</b>	Thai Language Arts in Elementary Schools	3 credits
<b>Th Ed 531</b>	Thai Language Arts in Secondary Schools	3 credits
<b>Th Ed 571</b>	Workshop for Teachers of Thai Language Arts	3 credits
<b>Th Ed 581</b>	Seminar on Problems and Research in Teaching Thai	3 credits

## **2. Teaching of Science**

<b>Sc Ed 511</b>	Theory and Practice in Science Curriculum Development	3 credits
<b>Sc Ed 521</b>	Science in Elementary Schools	3 credits
<b>Sc Ed 531</b>	Science in Secondary Schools	3 credits
<b>Sc Ed 571</b>	Workshop for Science Teachers	3 credits
<b>Sc Ed 581</b>	Seminar on Problems and Research in Teaching Science	3 credits

## **3. Teaching of Mathematics**

<b>Math Ed 511</b>	Theory and Practice in Mathematic Curriculum Development	3 credits
<b>Math Ed 521</b>	Mathematics in Elementary Schools	3 credits
<b>Math Ed 531</b>	Mathematics in Secondary Schools	3 credits
<b>Math Ed 571</b>	Workshop for Mathematic Teachers	3 credits
<b>Math Ed 581</b>	Seminar on Problems and Research in Teaching Mathematics	3 credits

## **4. Teaching of Social Science**

<b>Soc Ed 511</b>	Theory and Practice in Social Studies Curriculum Development	3 credits
<b>Soc Ed 521</b>	Theory and Behavior of Social Studies Instruction	3 credits
<b>Soc Ed 522</b>	Techniques of Social Studies Instruction evaluation	3 credits
<b>Soc Ed 523</b>	Innovation, Technology and Change in Social Studies	3 credits
<b>Soc Ed 571</b>	Workshop for Social Studies Teachers	3 credits
<b>Soc Ed 581</b>	Seminar on Problems and Research in Social Studies Instruction	3 credits

## **5. Early Childhood Education**

<b>E C Ed 511</b>	Curriculum and Teaching in Early Childhood Education	3 credits
<b>E C Ed 531</b>	Creative Activities for Pre - School Children	2 credits

<b>E C Ed 532</b>	Children and Dramatic Arts	2 credits
<b>E C Ed 541</b>	Parent Education	2 credits
<b>E C Ed 551</b>	Administration and Supervision in Early Childhood Education	2 credits
<b>E C Ed 581</b>	Seminar on Problems and Research in Early Childhood Education	2 credits

### **6. Adult and Continuing Education**

With the approval of Advisor and Head of Department of Curriculum and Instruction

<b>Con Ed 501</b>	Adult Education and Problems of Thai Society	3 credits
<b>Con Ed 521</b>	Techniques, Resources, and Mass in Adult Education	3 credits
<b>Con Ed 571</b>	Practicum in Adult Education	3 credits
<b>Con Ed 581</b>	Seminar in Adult and Continuing Education	3 credits
<b>Con Ed 522</b>	Preparation of Materials in Adult Education	3 credits

### **7. English**

With the approval of Advisor and Head of Department of English.

<b>Eng 511</b>	Reading I	2 credits
<b>Eng 611</b>	Reading II	2 credits
<b>Eng 521</b>	Writing I	2 credits
<b>Eng 522</b>	Writing II	2 credits
<b>Eng 531</b>	Oral Comprehension and Expression I	2 credits
<b>Eng 532</b>	Oral Comprehension and Expression II	2 credits
<b>Eng 551</b>	Translation I	2 credits
<b>Ling 501</b>	General Linguistics	2 credits

### **8. Geography**

With the approval of Advisor and Head of Department of Geography.

Compulsory

<b>Geog 511</b>	Advanced Map and Cartography	3 credits
<b>Geog 535</b>	Seminar in Economic Geography	3 credits

<b>Geog 523</b>	Seminar in Physical Geography.	3 credits
Elective		
<b>Geog 521</b>	Advanced Meteorology and Climatology	3 credits
<b>Geog 514</b>	Quantitative Method in Economic Geography	3 credits
<b>Geog 622</b>	Geomorphology	3 credits

### 9. History

With the approval of Advisor and Head of Department of History.

## Pattern 1

Thai History and Related Courses

<b>Hist 511</b>	Analytical Study in Early Thai History	4 credits
<b>Hist 512</b>	Seminar in Dhonburi and Early Ratanakosin Periods	2 credits
<b>Hist 611</b>	Seminar in Modern Thai History	3 credits
<b>Hist 533</b>	Modern China	3 credits
<b>Hist 622</b>	Seminar in Modern Southeast Asia	3 credits

## Pattern 2

Asian History

<b>Hist 533</b>	Modern China	3 credits
<b>Hist 534</b>	Modern Japan	3 credits
<b>Hist 622</b>	Seminar in Modern Southeast Asia	3 credits
<b>Hist 541</b>	Indian Civilization	3 credits
<b>Hist 542</b>	History of the Middle East	3 credits
<b>Hist 543</b>	Modern Australasia	3 credits
<b>Hist 611</b>	Seminar in Modern Thai History	3 credits

## Pattern 3

European History

<b>Hist 552</b>	Liberalism and Nationalism in the West	3 credits
<b>Hist 651</b>	History of Political Theories	3 credits
<b>Hist 551</b>	Renaissance and Reformation	3 credits

<b>Hist 652</b>	Seminar in Modern European History	3 credits
<b>Hist 554</b>	Western Political Systems	3 credits
<b>Hist 553</b>	Economic History of Europe	3 credits
<b>Hist 562</b>	American Social and Cultural History	3 credits

#### 10. Speech Therapy

<b>Speech 511</b>	Bases of Oral Communication and Communication Disorders	3 credits
<b>Speech 512</b>	Articulation Disorders	2 credits
<b>Speech 513</b>	Voice and Rhythm Disorders	3 credits
<b>Speech 611</b>	Language Disorders	2 credits
<b>Speech 621</b>	Speech Therapy in School	3 credits

#### 11. Mathematics

With the approval of Advisor and Head of Department of Mathematics.

<b>Math 581</b>	Concepts in Algebra for Teachers	3 credits
<b>Math 582</b>	Concepts in Analysis for Teachers	3 credits
<b>Math 583</b>	Concepts in Geometry for Teachers	3 credits
<b>Math 584</b>	Selected Topics in Mathematics	3 credits

#### 12. Thai

With the approval of Advisor and Head of Department of Thai

<b>Thai 511</b>	Thai Structure	2 credits
<b>Thai 612</b>	Seminar in Thai Usage	3 credits
<b>Ed 531</b>	Advanced Studies in Teaching Thai	3 credits

#### Elective

Select courses offered in Department of Thai to complete the requirements.

#### Course Description

##### Group 1 Curriculum and Instruction

<b>Hi Ed 511</b>	Curriculum and Instructional Development in Higher Education	3 credits
	Studies of philosophical, psychological, and social bases for curriculum development ; processes in curriculum development and	

- evaluation in higher education
- Hi Ed 531** Teacher Education in Thailand 3 credits  
Current theories and practices related to the pre-service and in-service education of teachers organization and problem of teacher education institution ; types of students, and curriculum patterns ; roles and functions of college, staff in the community and organization ; studies of special topics.
- Hi Ed 532** Practicum in Teacher Education 3 credits  
Studies of problems of pre-service teacher education ; and participation in the planning and teaching of pre-service courses.
- Hi Ed 533** Research in Instructional Behavior 3 credits  
A study of research and innovation of teaching behaviors ; development of competencies and skills in instructional experimentation to improve teaching.
- Hi Ed 540** Management and Organization of Higher Education 3 credits  
A comparative study of philosophies, objectives, roles, functions, types and organization of institutions of higher education in Thailand and in general : their principal administrative functions, including faculty personnel, business management, public relations, and coordinations ; principles of planning, academic accreditation, and innovations of higher education management wiht high lights on problems of Thai higher education management.
- Hi Ed 541** Academic Problems in Higher Education 3 credits  
An analytical study of academic personnel and faculty development : selection, assignment orientation, guidance, evaluation and pro-motion policies ; organization of faculty council, development policy for institutions

of higher learning ; development of teaching, research, community services activities, academic administration, curriculum development and instructional resources.

**Group 2 Personnel and College Student Personnel Administration**

**Hi Ed 542** Nonacademic Personnel Management in Higher Education 3 credits  
An analytical study of policies, principles and management of nonacademic personnel in higher education institutions ; processes, problems and innovations in personnel administration with the application to higher education institutions in Thailand.

**Hi Ed 543** Business and Financial Management in Higher Education 3 credits  
An analytical study of policies, principles and management of business and finance in higher education institutions in general and in Thailand ; sources of income, fund raising, expenditure, budgeting, student aids and auxiliary enterprises, financial efficiency in higher education, unit costs of instruction, plant financing, operation and maintenance, and financial problems in higher education.

**Hi Ed 560** The College Student and Environment 3 credits  
An analytical study of college and university student environment effecting his intellectual, social emotional, character, and competency development ; research findings in behavioral sciences will be used as guidelines for study of college and university student characteristics in the changing Thai society.

**Hi Ed 561** College Student Personnel Administration 3 credits  
Philosophies, policies, objectives, principles,



processes and problems of college student personnel administration ; organization, patterns, functions, operation, coordination, and evaluation with an emphasis on student personnel work existing in institutions of higher education in Thailand.

- Hi Ed 562** Practicum in College Student Affairs 3 credits  
Practicum in college student affairs in the areas of student services and activities ; integrating experiences for proposal of student affairs development and planing.
- Hi Ed 600** Practicum in curriculum Development in Higher Education 3 credits  
Supervised practices in curriculum development in a higher education institution.
- Hi Ed 601** Innovation and Curriculum Change in Higher Education 3 credits  
Studies of current educational innovation ; change process and change resistance of individuals and organization ; process of curriculum change in higher education and other levels of education ; utilization of educational innovation in the process of change and development.
- Hi Ed 620** College Teaching 3 credits  
An analytical study of instructional techniques ; an appraisal of instructional materials ; problems and innovations in higher education including students' practicum in curriculum planning, proposal of instructional materials, and proposed projects to be tried out.
- Hi Ed 621** Supervision of Teaching and Field Work 3 credits  
An analytical study of principles, processes, and problems of supervision of teaching and

- fieldwork especially in Thailand with a fieldwork practice try-out.
- Hi Ed 640** Practicum in Nonacademic Personnel Administration Affairs 3 credits  
An analytical study and practicum in nonacademic personnel administration affairs in the area of students's interest.
- Hi Ed 680** Seminar on Problems and Research in Higher Education 2 credits  
An analytical study of researches, problems, issues, and trends in higher education in Thailand ; students ' proposal of innovative projects and research design on a topic of special interest.
- Hi Ed 690** Institutional Research 3 credits  
A course designed to develop competency and skills in the specialized areas of data collection and interpretation of institutional studies and their implication to improve teacher education and higher education of student's special interest.
- Hi Ed 691** Independent Study 3 credits  
An individual program of study for students interested in investigating positions in higher education on a selected problem or issue ; a student proposes a detail analytical paper.
- Psy 515** Organizational Behavior 3 credits  
(See page 109)
- Guid 511** Group Dynamics 2 credits  
Principles of group dynamics, and leadership training ; an opportunity for experiencing, observing, and practicing basic human relations skills necessary in the achievement of a productive group process.
- Ed Adm 502** Administrative Theory and Organization 3 credits

- The evolution of concepts and theories in both administration and organization concentrating on the nature, components and characteristics of organization as well as several models of decision-making, soci-process and system models of administrative theories.
- Ed Adm 667** Systems Analysis 3 credits  
A study of the administrative ideas utilized for work effectiveness emphasizing on presenting the systems concept, systems analysis techniques and the systems analysis in government operation including various theories and models ; the relations of systems approach to program budgeting : PERT, CPM, PPBS, quantitative parameters and the cost-benefit analysis.
- Th Ed 511** Theory and Practice in Thai Language Arts Curriculum Development 3 credits  
An analytical study of structures of Thai language arts and curriculum development in schools ; practice in Thai language arts curriculum development and evaluation.
- Th Ed 521** Thai Language Arts in Elementary Schools 3 credits  
Analysis of curriculum and Teaching Thai language arts in elementary schools ; practice in the development of curriculum instructional materials.
- Th Ed 531** Thai Language Arts in Secondary Schools 3 credits  
Analysis of curriculum and teaching Thai language arts in secondary schools ; practice in the development of curriculum instructional materials.
- Th Ed 571** Workshop for Teachers of Thai Language Arts 3 credits  
Practice in the development of competencies

- in teaching and supervision of Thai language arts ; a critical study of instructional materials ; preparation of instructional materials.
- Th Ed 581** Seminar on Problems and Research in Teaching Thai 3 credits  
An analytical study of problems and research in teaching Thai language arts ; proposal of projects to solve problems based on research findings and learning theories.
- Sc Ed 511** Theory and Practice in Science Curriculum Development 3 credits  
An analytical study of structure and concepts in science current practices in science curriculum development ; practice in science curriculum development and evaluation.
- Sc Ed 521** Science in Elementary Schools 3 credits  
Analysis of curriculum and teaching in elementary school science ; practice in the development of curriculum instructional materials.
- Sc Ed 531** Science in Secondary Schools 3 credits  
Analysis of curriculum and teaching secondary school science ; practice in the development of curriculum instructional materials.
- Sc Ed 571** Workshop for Science Teachers 3 credits  
Practice in the development of competencies in teaching and supervision of school science ; a critical study of instructional materials.
- Sc Ed 581** Seminar on Problems and Research in Teaching Science 3 credits  
An analytical study of problems and research in teaching science in schools ; proposal of projects to solve problems based on research finding and learning theories.
- Math Ed 511** Theory and Practice in Mathematic Curriculum Development 3 credits  
An analytical study of structure and concepts

- in mathematics, development of mathematic curriculum in schools ; practice in mathematic curriculum development and evaluation.
- Math Ed 521** Mathematics in Elementary Schools 3 credits  
Analysis of curriculum and instruction of mathematics of elementary schools ; practice in the development of curriculum instructional materials.
- Math Ed 531** Mathematics in Secondary Schools 3 credits  
Analysis of curriculum and instruction of mathematics in secondary schools ; practice in the development of curriculum instructional materials.
- Math Ed 571** Workshop for Mathematic Teachers 3 credits  
Practice in the development of competencies in teaching and supervision of mathematics ; a critical study of mathematic instructional materials ; preparation of instructional materials.
- Math Ed 581** Seminar on Problems and Research in Teaching Mathematics. 3 credits  
An analytical study of problems and research in teaching mathematics in schools ; proposal of projects to solve problems based on research findings and learning theories.
- Soc Ed 511** Theory and Practice in Social Studies Curriculum Development 3 credits  
(See page 41)
- Soc Ed 521** Theory and Behavior of Social Studies Instruction 3 credits  
(See page 41)
- Soc Ed 522** Techniques of Social Studies Instruction Evaluation 3 credits  
An analytical study of concepts and principles of social studies instruction evaluation, instruments, and test designs, their reliability and validity.

- Soc Ed 523** Innovation, Technology, and Change  
in Social Studies Instruction 3 credits  
(See page 33)
- Soc Ed 571** Workshop for Social Studies  
Teachers 3 credits  
Practice in the development of competencies  
in teaching and supervision of teaching social  
studies ; an analytical study of instructional  
material ; innovative production and design  
of instructional materials based on social studies  
conceptual approach and psychology of learning.
- Soc Ed 581** Seminar on Problems and Research  
in Social Studies Instruction. 3 credits  
An analytical study of problems in school  
social studies instruction ; proposal of projects  
for solving problems based on research  
findings.
- E C Ed 511** Curriculum and Teaching in Early  
Childhood Education 3 credits  
(See page 28)
- E C Ed 531** Creative Activities for Pre-School  
Children 2 credits  
(See page 28)
- E C Ed 532** Children and Dramatic Arts 2 credits  
(See page 28)
- E C Ed 541** Parent Education 2 credits  
(See page 28)
- E C Ed 551** Administration and Supervision in Early  
Childhood Education 2 credits  
The operation and maintenance of physical  
facilities as learning environment of pre-school  
children ; utilization of local resources for staff  
development and children's development.
- E C Ed 581** Seminar on Problems and Research  
in Early Childhood Education 2 credits  
An intensive study of problems in early childhood

	education ; a comparative study of early childhood education programs in Thailand and neighboring countries ; studies of major research findings for the implication in solving problems ; presentation of proposed research projects for discussion and criticism.	
<b>Con Ed 501</b>	Adult Education and Problems of Thai Society (See page 39)	3 credits
<b>Con Ed 521</b>	Techniques, Resources, and Mass Media in Adult Education (See page 39)	3 credits
<b>Con Ed 571</b>	Practicum in Adult Education (See page 39)	3 credits
<b>Con Ed 581</b>	Seminar in Adult and Continuing Education Experiences in arranging seminars participated by personnel from adult educational agencies, with a view to promoting skills in understanding of the role in coordinating, planning, implementing, administering and supervising programs at both central and local levels.	2 credits
<b>Con Ed 522</b>	Preparation of Materials in Adult Education Familiarity with tools and materials used in programs for adults ; practical work in constructing, testing, and evaluating teaching and learning materials.	3 credits
<b>Eng 511</b>	Reading I (See page 140)	2 credits
<b>Eng 611</b>	Reading II Continuation of Reading I Practice will be given to improve reading speed.	1 credits
<b>Eng 521</b>	Writing I Practice in writing expository and argumentative essays, critical reviews, precis, and social and	2 credits

	business letters.	
<b>Eng 522</b>	Writing II	2 credits
	Continuation of Writing I. Practice in Procedures and techniques in writing research papers.	
<b>Eng 531</b>	Oral Comprehension and Expression I	2 credits
	Oral practice will be given to students to enable them to understand conversations, talks and lectures made by native speakers of English, and to make intelligent responses with adequate confidence. Oral activities will include narrating, explaining what read and heard in an interesting way, interviewing for information, and giving reports.	
<b>Eng 532</b>	Oral Comprehension and Expression II	2 credits
	Continuation of Oral Comprehension and Expression I. More listening practice will be given to enable students to understand lectures, speeches and debates in English. Students will practice elementary techniques for discussions and speech making from prepared outlines.	
<b>Eng 551</b>	Translation I	2 credits
	(See page 141)	
<b>Ling 501</b>	Outline in General Linguistics	2 credits
	(See page 141)	
<b>Geog 511</b>	Advanced Map and Cartography	3 credits
	(See page 145)	
<b>Geog 535</b>	Seminar in Economic Geography	3 credits
	(See page 145)	
<b>Geog 523</b>	Seminar in Physical Geography	3 credits
	(See page 145)	
<b>Geog 521</b>	Advanced Meteorology and Climatology	3 credits
	(See page 146)	



<b>Geog 514</b>	Quantitative Method in Economic Geography (See page 146)	3 credits
<b>Geog 622</b>	Geomorphology (See page 146)	3 credits
<b>Hist 511</b>	Analytical Study in Early Thai History (See page 150)	4 credits
<b>Hist 512</b>	Seminar in Dhonburi and Early Ratanakosin Period. (See page 150)	2 credits
<b>Hist 611</b>	Seminar in Modern Thai History (See page 150)	3 credits
<b>Hist 533</b>	Modern China (See page 151)	3 credits
<b>Hist 622</b>	Seminar in Modern Southeast Asia (See page 152)	3 credits
<b>Hist 534</b>	Modern Japan An analytical study of the role, the importance and the changes in politics, government, society, economics and foreign policy of Japan from the period of the opening of the country (A.D. 1953) until the present day.	3 credits
<b>Hist 541</b>	Indian Civilization (See page 151)	3 credits
<b>Hist 542</b>	History of the Middle East (See page 151)	3 credits
<b>Hist 543</b>	Modern Australasia An analytical study of the region in the South Pacific with an emphasis on Australia, New Zealand, New Guinea ; the coming of the West ; the changes in the economic, political and social spheres and the role of this region in the world today.	3 credits
<b>Hist 552</b>	Liberalism and Nationalism in the West (See page 153)	3 credits

<b>Hist 651</b>	History of Political Theories (See page 153)	3 credits
<b>Hist 511</b>	Renaissance and Reformation (See page 153)	3 credits
<b>Hist 652</b>	Seminar in Modern European History (See page 153)	3 credits
<b>Hist 554</b>	Western Political System (See page 154)	3 credits
<b>Hist 553</b>	Economic History of Europe (See page 154)	3 credits
<b>Hist 562</b>	American Social and Cultural History (See page 154)	3 credits
<b>Speech 511</b>	Bases of Oral Communication and Communication Disorders The production and perception of speech ; anatomy and physiology of the body related to the processes of speech and hearing ; introduction to speech disorders : types, causes and effects ; basic principles for diagnosis and therapy.	3 credits
<b>Speech 512</b>	Articulation Disorders Articulation of speech sounds and Thai phonetics ; articulatory disorders due to organic and non-organic causes ; principles and procedures of diagnosis and therapy with practice.	2 credits
<b>Speech 513</b>	Voice and Rhythm Disorders Voice and rhythm disorders : hoarseness, hypernasality, stuttering, : and cluttering ; basic principles and procedures for diagnosis and treatment.	3 credits
<b>Speech 611</b>	Language Disorders Development of speech and language ; etiology and symptoms of language disorders : delayed	2 credits

	speech and language aphasia, and language deficiency in the mentally retarded ; basic principles for appraisal and treatment of language disorders.	
<b>Speech 621</b>	Speech Therapy in School	3 credits
	Speech problems commonly found in schools ; roles of the teacher to the children with speech problems ; co-operation between teachers and parents, including speech therapists, psychologists, doctors, and other and others concerned ; preparation and organization of school speech therapy program ; methods and techniques for screening, evaluation, and treatment in an individual with speech problems ; emphasis on practicum.	
<b>Math 581</b>	Concepts in Algebra for Teachers	3 credits
	An analysis of school mathematic contents with respect to algebraic structure e.g. group, ring field, integral domain, vector space and algebraic system.	
<b>Math 582</b>	Concepts in Analysis for Teachers	3 credits
	An analysis of school mathematic contents with respect to concepts and principles in analysis.	
<b>Math 583</b>	Concepts in Geometry for Teachers	3 credits
	An analysis of school mathematic contents with respect to concepts and principles in geometry.	
<b>Math 584</b>	Selected Topics in Mathematics	3 credits
	A study of selected current topics in mathematics for teachers, e.g. elementary game theory, application of computer in school, application of certain topological concepts in school, and application of mathematics in solving problems.	
<b>Thai 511</b>	Thai Structure	2 credits
	Studies in Thai Phonology and Thai Syntax.	

- Thai 612** Seminar in Thai Usage 3 credits  
A study of usage and language problems occurring in society in general and in schools. The solving of such problems will be based on linguistics and the language arts.
- Ed 531** Advanced Studies in Teaching Thai 3 credits  
Studies of problems and conditions in teaching Thai in school ; planning for research and development to improve the instruction.

# **Educational Administration**

## **Objective**

1. To provide professional preparation for educational administrators.
2. To strengthen the calibre of educational administration personnel.
3. To provide professional preparation that will enable the student to do research and apply research results as a means to solve problems and improve educational administration.

## **Structure of the Program**

### **Requirements**

- |                             |               |                 |
|-----------------------------|---------------|-----------------|
| 1. Foundations of Education |               | 12 credit hours |
| 1.1 Required Courses        |               | 9 credit hours  |
| 1.2 Electives Courses       |               | 3 credit hours  |
| 2. Major Area               | not less than | 27 credit hours |
| 2.1 Required Course         |               | 18 credit hours |
| 2.2 Elective Course         |               | 9 credit hours  |
| 3. Free Elective Area       | not less than | 3 credit hours  |
| 4. Thesis                   |               | 6 credit hours  |

### **Meanings of the Middle Digits of Code Numbers**

0 refers to principles of administration, theories and laws

1 refers to personnel

2 refers to school and society

3 refers to economics, finance and budget

4 refers to general education

5 refers to sociology

6 refers to seminar, analysis and educational research

9 refers to independent study

### **Compulsory**

<b>Ed Adm 501</b>	Principles of Educational Administration	3 credits
<b>Ed Adm 511</b>	Personnel Administration in Education	3 credits
<b>Ed Adm 521</b>	School Plant Planning	2 credits
<b>Ed Edm 531</b>	School Finance and Budgeting	2 credits
<b>Ed Adm 661</b>	Seminar in Educational	

	Administration	3 credits
Ed Adm 504	Legal Aspects of Education	2 credits
Ed Adm 502	Administrative Theory and Organization	3 credits

### **Elective**

Ed Adm 503	Politics and Education	3 credits
Ed Adm 532	Economics of Education	3 credits
Ed Adm 551	Social and Cultural Development	3 credits
Ed Adm 505	Comparative Education	2 credits
ED Adm 691	Independent Study	1-3 credits
Ed Adm 522	School and Community Relations	3 credits
Ed Adm 541	Innovation in Education	3 credits
Ed Adm 612	Leadership Functions in School Administration	3 credits
Ed Adm 667	System Analysis	3 credits
Ed Adm 542	Supervision in Education	3 credits
Ed Adm 601	Organizational Development	3 credits
Ed Adm 602	Elementary School Administration	2 credits
Ed Adm 603	Secondary School Administration	2 credits
Ed Adm 604	Vocational School Administration	2 credits
Ed Adm 621	Local Educational Administration	2 credits
Ed Adm 662	Seminar in Academic Affairs	2 credits
Ed Adm 663	Seminar in Student Affairs	2 credits
Ed Adm 664	Seminar in Elementary School Administration	2 credits
Ed Adm 665	Seminar in Secondary School Administration	2 credits
Ed Adm 666	Research in Educational Administration	2 credits
Ed 511	Curriculum Development	3 credits

### **Course Description**

Ed Adm 501	Principles of Educational Administration	3 credits
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The course is aimed to take an overview of all principles in school administration. Special emphasis is on the concepts, theories and the

development of administration to the current practices in administrative tasks. Current problems and issues in our school administration will be discussed in view of searching ways and means to deal with these problems.

- Ed Adm 511** Personnel Administration in Education 3 credits  
The course is focused on role of teacher and administrator in school personnel management, recruitment, placement, personnel development supervision of personnel in public and private school systems, policies affecting certification, rights and responsibilities of teachers.
- Ed Adm 521** School Plant Planning 2 credits  
Planning educational facilities for school system with special emphasis on writing educational specification, evaluating existing facilities, site selection, architectural and constructural planning, building standard and selection of equipment.
- Ed Adm 531** School Finance and Budgeting 2 credits  
Principles, practices and trends in financing public education in Thailand including sources of revenues, bugetary process, school finance as related to public finance, and fiscal policies as related to the total educational programs.
- Ed Adm 661** Seminar in Educational Administration 3 credits  
The discussion and survey of problems related to organizational patterns, decision-making, educational planning, school administrative tasks, and other educational problems concerned.
- Ed Adm 504** Legal Aspects of Education 2 credits  
Educational law as set forth in the constitutions, statutes, rules and regulations of the Ministry of Education and other related educational

- agencies ; principles growing out of fundamental legal procedures.
- Ed Adm 502** Administrative Theory and Organization 3 credits  
(See page 54)
- Ed Adm 503** Politics and Education 3 credits  
A study of the relationship between public administration and education ; political influences over educational management and the analytical study of political doctrines or governments toward educational system with special-emphasis on democracy ; discussion on the role of the pressure group, decentralization of authority, allocation of budgets, decision - making at the governmental and local levels the analysis of problems and trends directly and indirectly effecting educational administration.
- Ed Adm 532** Economics of Education 3 credits  
An analysis of the principles in accordance with how the national income may be allocated to support education. Consideration is given to human capital; education and economic development, economic and social aspects of educational planning ; theory of economic planning ; methodology and the relationship of manpower ; economic and social planning in Thailand.
- Ed Adm 551** Social and Cultural Development 3 credits  
An analysis of the great impact of social and cultural change on Thai society ; theories of social and cultural development. Emphasis is on planning to face the social change and also improvement of education to fit to the social and cultural condition.
- Ed 505** Comparative Education 3 credits  
A study of methodology and assumptions in comparative education as well as comparative



- study of the contemporary educational systems in selected countries ; an analytical study of significant forces affecting the development of existing educational systems.
- Ed Adm 691** Independent Study 1-3 credits  
Students work individually on topics of their interest under the direction of staff members.
- Ed Adm 522** School and Community Relations 3 credits  
A study of the school and community with an emphasis upon the professional responsibilities and ethics of teachers as related to the lay public, the community, community resources, administrative and social agencies, and the educational profession, school community relations and problems in education are stressed.
- Ed Adm 541** Innovation in Education 3 credits  
An analytical study of current innovation in educational system, innovative and change process within educational institutions, research findings in the innovation of education and administration area including change and development techniques for the benefit of teachers and administrators.
- Ed Adm 612** Leadership Functions in Educational Administration 3 credits  
This course is aimed to take an overview of human relations and ways of improving human relation in educational organization. Emphasis is placed on group process, anatomy of leadership, educational administration as leadership, communication and administrative success and decision-making.
- Ed Adm 667** Systems Analysis 3 credits  
(See page 55)
- Ed Adm 542** Supervision in Education 3 credits  
Roles and functions, skills, behavior and techniques of the educational supervisors, the

- analysis of the past supervisory practices including the research and study of problems in order to improve the educational supervision in Thailand.
- Ed Adm 601** Organizational Development  
A history of organization development and its definition ; basic components of and OD program as the processes of change ; basic understanding of theories and practices as applicable to educational institutions.
- Ed Adm 602** Elementary School Administration 3 credits  
Philosophy, policies and purposes of elementary education management, roles and functions of the educational officers ; school administrative tasks, and principles of the administration supervision of the elementary schools.
- Ad Adm 603** Secondary School Administration 2 credits  
An overview of basic principles in secondary school administration ; roles of secondary school administrators ; trends in the administration of the changing secondary school including standard criteria for effective secondary school in Thailand.
- Ed Adm 604** Vocational School Administration  
Philosophy, policies, and purposes of vocational education management ; administrative structure of vocational education ; roles and functions of the vocational school officers with special emphasis on the vocational schools, including current problems and trends in vocational school administration in Thailand.
- Ed Adm 621** Local Educational Administration 2 credits  
Structure of local educational administration, roles and functions of local educational officers ; Chang wat and Amphoe Administrative officers in education ; principles of Community development with special emphasis on educational

- leadership of the local educational administrators to the community.
- Ed Adm 662** Seminar in Academic Affairs 2 credits  
Academic problems in the administration of educational institutions ; selection of interesting acadmic problems for classroom activities ; writing good seminar projects.
- Ed Adm 663** Seminar in Student Affairs 2 credits  
Seminars on the administration of student affairs in various levels of educational institutions ; the seminar topics vary according to the nature of problems and issues in student affairs; administration and the student's field of interest
- Ed Adm 664** Seminar in Elementary School Administration 2 credits  
Intensive and analytical study of current problems ; issues and trends in elementary school administration in Thailand ; study of the application of principles, theories and research findings in the area of elementary school administration.
- Ed Adm 665** Seminar in Secondary School Administration 2 credits  
An overview of all principles of secondary school administration ; a study of problems, issues in the administration of secondary schools in Thailand ; student's seminar topics will be experimented as group projects.
- Ed Adm 666** Research in Educational Administration 2 credits  
Studies of problems, characteristics, and nature of research design in educational administration designing to integrate introductory concepts in the areas of research methodology, statistics and measurement to allow meaningful application of these concepts

**Ed 511**

to understanding research and scientific methods of problem solving in educational administration, and to preparing thesis writing.

Curriculum Development                      3 (3) credits

Studies of school curriculum as it relates to the psychological, philosophical, cultural, and social basis of education ; methods and techniques in curriculum revision and preparation of curriculum materials.

# Guidance

## Objectives

1. To effectively produce guidance and counseling instructors.
2. To train future counselors who will work in educational institutions
3. To enable the student to do research on problems relating to guidance and counseling

## Structure of the Program

### Requirements

- |                                  |                               |
|----------------------------------|-------------------------------|
| 1. Foundations of Education Area | 12 credit hours               |
| 2. Major Area                    | 27 credit hours               |
| 2.1 Required Courses             | not less than 20 credit hours |
| 2.2 Elective Courses             | not less than 7 credit hours  |
| 3. Free Elective Area            | 3 credit hours                |
| 4. Thesis                        | 6 credit hours                |

### Meanings of the Middle Digits of the Code Numbers

0 refers to foundations

1 refers to theories and principles

2 refers to practicum

3 refers to management, services, administration

4 refers to problems, seminar

5 refers to research, testing

### Compulsory 20 credits

Guid 501	Foundation of Guidance and Student Personnel Work	2 (3) credits
Guid 512	Theories and Techniques of Counseling I	2 (2) credits
Guid 513	Theories and Techniques of Counseling II	2 (2) credits
Guid 531	Occupational, Educational and Social Information	3 (3) credits
Guid 551	Guidance Testing	2 (2) credits
Guid 621	Group Counseling	2 (3) credits
Guid 622	Counseling Practicum I	2 (3) credits
Guid 623	Counseling Practicum II	3 (6) credits
Guid 641	Problems in Guidance and counseling	2 (2) credits

**Elective** 7 credits

<b>Psy 513</b>	Advanced Social Psychology	3 (3) credits
<b>Psy 521</b>	Developmental Psychology	2 (2) credits
<b>Psy 627</b>	Clinical Child Psychology	3 credits
<b>Psy 633</b>	Theories of Personality	3 (3) credits
<b>Psy 634</b>	Mental Hygiene	3 (3) credits
<b>Guid 511</b>	Group Dynamics	2 (2) credits
<b>Guid 514</b>	Career Education	2 (2) credits
<b>Guid 521</b>	Case Study	2 (2) credits
<b>Guid 532</b>	Guidance in Elementary School	3 (3) credits
<b>Guid 533</b>	Guidance in Secondary School	3 (3) credits
<b>Guid 534</b>	Student Personnel Work in Higher Education	3 (3) credits
<b>Ed Psych 513</b>	Mental Health of School Children	2 (2) credits
<b>Ed Psych 611</b>	Group Behavior	2 (2) credits

**Course Description**

<b>Guid 501</b>	Foundations of Guidance and Student Personnel Work	2 (3) credits
	Philosophy and scope of guidance services in schools and student personnel services in colleges ; history and development of guidance in Thailand and abroad ; a survey of some current guidance programs in schools, emphasizing the organization and administration of guidance services ; the ethics of counselor and his role in school.	
<b>Guid 512</b>	Theories and Techniques of Counseling I	2 (2) credits
	Comparison of theories of counseling and psychotherapy in terms of philosophy, main characteristics, concept of man, goals of counseling theories and counseling techniques ; emphasis on self-concept, psychoanalytic viewpoint, Rogerian theory, Gestalt therapy, existential viewpoint, transactional analysis.	
<b>Guid 513</b>	Theories and Techniques of	

	Counseling II	2 (2) credits
	Comparison of theories of counseling and psychotherapy in terms of philosophy, main characteristics, concept of man, goals of counseling theories and counseling techniques ; emphasis on social learning, trait and factor theory, rational-emotive theory, behavioral counseling, reality therapy, eclectic viewpoint.	
<b>Guid 531</b>	Occupational Educational and Social Information	3 (3) credits
	Methods for providing occupational, educational and social information in the guidance program, sources of information in Thailand, techniques of teaching units in Occupation techniques of Placement, Community, educational and occupational trends.	
<b>Guid 551</b>	Guidance Testing	2 (2) credits
	Basic principles in testing and test selection for guidance, aptitude tests, achievement tests and psychometric tests, test administration and interpretation, the use of test scores in guidance.	
<b>Guid 621</b>	Group Counseling	2 (3) credits
	A study of various aspects of group counseling, counselor's role and group climate; students assigned into small groups working as teammates; sensitivity training, role flexibility, self acceptance, etc. learned by ways of small group interaction.	
<b>Guid 622</b>	Counseling Practicum I	2 credits
	Development of skills in counseling techniques through role playing, simulation, observation and behavior analysis with the use of video-tape, review, and evaluation of counseling practice.	
<b>Guid 623</b>	Counseling Practicum II	3 (6) credits
	Practicum in guidance and counseling in	

school setting under close supervision of school counselor and college instructor in counseling ; arrangement of guidance and counseling programs to provide each trainee with experience in individual and group counseling ; provisions of information services; participation in student activities ; individual analysis, and case studies.

**Guid 641**

Problems in Guidance and Counseling 2 (2) credits

An analysis of guidance and counseling problems in schools. Students will be exposed to problems relevant to counseling practices such as drug-addiction, juvenile delinquency, student activism, gambling, sex deviants, etc.

**Psy 513**

Advanced Social Psychology 3 (3) credits

Intensive consideration of selected topics not being covered in other advanced courses social psychology ; newly developed areas of social psychology such as social facilitation, bystander intervention, imitation, conformity, altruism, aggression, etc.

**Psy 521**

Developmental psychology 3 (3) credits

Principal theories concerning child development; various aspects of human development from conception to senescence with special emphasis on psychological and social factors.

**Psy 627**

Clinical Child Psychology 3 (3) credits

Essential conditions in child psychotherapy especially the therapeutic process with the normal child, the handicapped child, the disturbed child and the creative child ; a therapeutic approach and the counseling with parents of problem children ; a therapist's role in the school settings and in the child guidance clinic is surveyed and observed.

**Psy 633**

Theories of Personality 3 (3) credits

A review of theories of personality (emphasizing



structure and dynamic) such as Freud's Psychoanalytic theory, Social Psychological theory, Murray's Porconology, Lewin's Field Theory, Organismic theory, Factor theories, Rogers ; self theory, Skinner's Stimulus Response theory ; application of observational accounts, case studies and cross-cultural research.

**Psy 634** Mental Hygiene 3 (3) credits

A general course designed to give an understanding of the healthy personality throughout different stages of life, exploration of fundamental factors in human adjustment with emphasis upon the prevention of inadequate adjustment and upon the process by which maladjusted individuals may be restored to normal living.

**Guid 511** Group Dynamics 2 (2) credits

Principles of group dynamics, and leadership training. This course provides an opportunity for experiencing, observing, and practicing basic human relations skills necessary in the achievement of a productive group process.

**Guid 514** Career Education 2 (2) credits

Concepts of career education emphasising on current issues and developments in occupational trends, teachers' and counselors' roles in career development of school children. Students are exposed to various career development models, sources and materials for career information.

**Guid 521** Case Study 2 (2) credits

Diagnosis and interpretation of case study materials, discussion on problems and process of counseling based on actual cases. Students are trained to work with case problems under the supervision of the instructor

**Guid 532** Guidance in Elementary

- School 3 (3) credits  
The functions of guidance in elementary school, organization and administration of the guidance program at this level emphasizing on student's social and emotional adjustment, introduction to the use of techniques for understanding the individual and working with group. Practical guidance problems in elementary schools are discussed.
- Guid 533** Guidance in Secondary School 3 (3) credits  
The functions of guidance in secondary school ; organization and administration of the pupil personnel services emphasizing on student's life adjustment and career development, methods of indentifying guidance needs of secondary school student ; an examination of current guidance programs and problems in schools.
- Guid 534** Student Personnel Work in Higher Education 3 (3) credits  
An overview of student personnel services in colleges and universities ; philosophy, organization and administration of the personnel program at college level, roles of student personnel workers, and personnel services are discussed as well as a survey of college personnel programs in colleges and universities.
- Ed Psych 513** Mental Health of School Children 2 (2) credits  
The factors involved in child development (preschool period, early school years, intermediate years, adolescence) and the problems of each period ; the preventive and remedial phases of mental health ; emphasis on factors favoring prevention and resolution of behavior difficulties and evaluation of school programs on basis of their contribution to mental health.
- Ed Psych 611** Group Behavior 2 (2) credits

Group research and theory focusing on investigation of interpersonal relationship ; communication structures ; status and power relations ; role differentiation ; group uniformity ; group influence on individual's behavior and problem-solving behavior including discussion of a group acting as a mob.

# Educational Measurement

## Objectives

1. To enable the student to develop, evaluate, and research into various tools for behavioral measurement.
2. To provide professional preparation that will enable the student to plan, operate, and teach measurement, statistics, and educational research courses.
3. To promote the student to further the study in educational measurement at the more advanced level.
4. To promote the student to be conscious of and responsible to measurement specialist's ethics.

## Structure of the Program

### Requirements

- |                                  |                                |                 |
|----------------------------------|--------------------------------|-----------------|
| 1. Foundations of Education Area |                                | 12 credit hours |
| 2. Major Area                    |                                | 27 credit hours |
| 2.1 Required Courses             | not less than <del>14</del> 18 | credit hours    |
| 2.2 Elective Courses             | not less than 3                | 0 credit hours  |
| 3. Free Elective Courses         | not less than                  | 3 credit hours  |
| 4. Thesis                        |                                | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

- 0 refers to measurement
- 1 refers to statistics
- 2 refers to research
- 3 refers to computer science

### Compulsory

EDM 501	Theory of Educational Test and Measurement	3 (3) credits
EDM 502	Construction of Achievement Tests I	3 (3) credits
EDM 503	Construction of Achievement Tests II	3 (3) credits
EDM 504	Measurement of Intelligence and Aptitude	3 (3) credits
Stat 515	Statistical Designs of Experiment	3 (3) credits

Res 523	Research Practicum in Measurement	3 (3) credits
EDM 505	Theory of Evaluation	3 (3) credits
EDM 506	Seminar in Educational Testing and Measurement	3 (3) credits
<i>Elective</i> Stat 516	Sampling Technique	3 (3) credits
Stat 517	Nonparametric Statistics	3 (3) credits
Stat 518	Factor Analysis	3 (3) credits
Res 524	Seminar in Educational Research	3 (3) credits
S Sc 531	Digital Computer Programming	2 (2) credits
S Sc 532	Introduction to Computing	3 (3) credits
Ed 600	Educational Problems	3 (3) credits
Psy 501	General Psychology	3 (3) credits

### **Course Description**

EDM 501	Theory of Educational and Psychological Measurement	3 credits
	Roles of evaluation in education, function of measurement in evaluation; pupil characteristics to be measured, levels of refinement in measurement ; types of evaluation instrument judging the quality of a measurement instrument ; effect of test length on test parameters ; validity and reliability ; planning a school testing program : function mechanics ; raw scores : definition of true and error scores, basic equations derived from a definition of random error ; scores interpretation ; derived scores : linear and area transformation : I.Q., Z-score, T-scores, profiles : specific, profiles, general profiles, profiles analysis ; norms : types of norms table, multiple score norms table, expectancy table, etc ; marking, grading, reporting.	
EDM 502	Construction of Achievement Tests I	3 credits

Development of testing techniques for the appraisal of the cognitive objectives of instruction, such as knowledge, problem-solving abilities, communication skills, and study and research skills.

**EDM 503**

Construction of Achievement

Tests II

3 credits

Concepts in psychological theories essential for the construction of tests for the appraisal of the affective domain, development of testing techniques for the appraisal of the affective objectives of instruction, such as interests, attitudes and values, appreciation, personal and social adjustment, and research skills.

**EDM 504**

Measurement of Intelligence and

Aptitude

3 credits

The meaning of intelligence ; the structure of intelligence ; norms on intelligence tests ; the use of aptitude tests ; the differential nature of aptitudes ; reliability and validity of aptitude measures ; norms on aptitude tests ; development of testing techniques for the appraisal of the intelligence and aptitude test, and study and research skills.

**Stat 515**

Statistical Designs of Experiment

3 credits

Fundamental concepts and basic designs : nature and purpose of experiments, measure of precision, testing hypothesis, good design, basic designs, types of error, principle of randomization, chi-square,  $t$ , and  $F$  distributions : degrees of freedom, limitation of  $t$ -test, analysis of variance ; the test of overall null hypothesis, mean square ratio, assumptions underlying  $F$ -test ; simple randomized design, analysis of variance in double-entry tables : analysis of total sum of squares into components,

	computational procedure, meaning of interaction, treatment X levels designs, repeated measurement design, factorial design, replication design, split-plots design.	
<b>Rse 523</b>	Research Practicum in Measurement	3 credits
	To provide practicum experience in research of educational measurement emphasizing on problem definition, design, data analysis, and research report.	
<b>EDM 505</b>	Theory of Evaluation	3 credits
	Definition of evaluation ; the role of evaluation in education ; types and categories of evaluation ; educational decision making ; criteria ; evaluation methodology ; evaluative research design ; measurement effects ; evaluation and program administration.	
<b>EDM 506</b>	Seminar in Educational Testing and Measurement	3 credits
	Primarily concerned with specific problems in education testing and measurement which students and faculty members wish to explore.	
<b>Stat 516</b>	Sampling Technique	3 credits
	Survey of sampling principles ; simple random sampling ; stratified simple random sampling ; simple one or two-state cluster sampling ; control of variation in size of cluster in estimating totals, averages, or ratios multi-stage sampling with large primary sampling units ; regression estimates, double sampling, time series, systematic sampling and other methods.	
<b>Stat 517</b>	Nonparametric Statistics	3 credits
	Nonparametric VS. parametric statistics, central limit theorem ; choosing an appropriate statistical test ; power, scales, the one sample case, the case of two related samples, two	

- independent samples, k-independent samples methods binomial test, chi-square, sign test, Fisher exact probability test, Mann-Whitney U test, chi-square test for two independent samples, median test, etc.
- Stat 518** Factor Analysis 3 credits  
 Mathematical Introduction : matrices, determinants, scalar products matrix inversion, Eigenvector and transformations, history of factor theory : Spearman's two-factor theory, multiple-factor theory, correlation matrix and the factor matrix, geometric interpretation of factors, extraction of factors by the centroid methods, rotation of reference axes ; simple structure, rotation to psychological meaning, interpretation of factors, estimation of factors in persons ; some special problem in factor analysis.
- Res 524** Seminar in Education Research 3 credits  
 Primarily concerned with specific research problems in education which student and faculty members wish to explore.
- C Sc 531** Digital Computer Programming 3 credits  
 Mechanized data processing concepts ; analog vs. digital computers ; history and development of digital computers ; punched cards ; Hollerith's code ; digital computer system ; concept FORTRAN, or basic language programming, arithmetic statements ; control statements ; input ; subroutines ; statistical procedures : multivariate analysis, analysis of variance, chi-square, matrix procedures.
- C Sc 532** Introduction to computing 3 credits  
 Computer structure & construction of computer programs ; use of a specific programming language to solve problems over a wide range



of applications on a digital computer ; the applications selected from problem areas in which no sophisticated knowledge of mathematics is required.

**Ed 600**

Educational problems 3 credits

A general survey of problems occurring in different levels of educational systems and some possible solutions ; personnel, administrative, academic types of problems ; psychological and socio-economic aspects of the problems and solutions ; roles of school guidance program as a means to alleviate some problems.

**Psy 501**

General Psychology 3 credits

Scientific method : definition of psychology ; nature, function, and language of science ; understanding explanation and theory ; the science of behavior methods of measuring behavior, dependent - independent variables, stimulus-response variables, empirical relationships, theoretical constructs and psychological theory, the origin and status of modern psychology, pre-scientific speculation, beginning of science of psychology, influence of pragmatism, psychological testing, social psychology, statistical description and interpretation of scientific data ; biological foundation of behavior receiving, communicating, reacting mechanisms, nervous systems ; heredity, maturation, learning theory and experiments, Freud theory, perceptions.

# Educational Technology

## Objectives

1. To provide professional preparation that will make the student knowledgeable and capable to teach educational technology courses.
2. To enable the student capable management and gain leadership for production and services relating to instructional technology
3. To better equip the student to do research work on problems relating to the application of technology in teaching and education.

## Structure of the Program

### Requirements

- |                                  |               |                 |
|----------------------------------|---------------|-----------------|
| 1. Foundations of Education Area |               | 12 credit hours |
| 2. Major Area                    | not less than | 27 credit hours |
| Required Courses                 |               | 27 credit hours |
| 3. Free Elective Area            | not less than | 3 credit hours  |
| 4. Thesis                        |               | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

0 refers to general

1 refers to theories and principles

2 refers to application

3 refers to practicum

### Compulsory 27 credits

Ed T 510	Research and Theory in Educational Technology	2 credits
Ed T 511	Technology of Education	2 credits
Ed T 514	Administration of Educational Technology Program	2 credits
Ed T 515	Curricular integration of Instructional Media	2 credits
Ed T 530	Advanced Preparation of Graphic Materials	2 credits
Ed T 531	Advanced Photography	3 credits
Ed T 532	Educational Motion Picture	

Ed T 533	Production Educational Radio Program Production	3 credits 3 credits
Ed T 534	Production Educational Television Program	3 credits
Ed T 620	Seminar in Educational Technology	2 credits
Ed T 630	Practicum	3 credits
<b>Free Elective</b>	3 credits at least	
Ed T 512	Principle and Theory of Message Design	2 credits
Ed T 513	Mass Communication in Education	2 credits
Ed T 535	Design and Production for Communication	2 credits
Ed T 520	Multimedia Approach to Programmed Instruction	2 credits
Ed T 500	Public Relations	2 credits
Ed T 536	Design for Printed Materials	2 credits

### **Course Description**

Ed T 510	Research and Theory in Educational Technology	2 credits
	Review research in the field of educational technology and theories derived from such research ; emphasis on the ways in which the methods and media for instruction were systematically designed to achieved certain educational outcomes.	
Ed T 511	Technology of Education	2 credits
	A development of technology as applied to education in Thailand as well as in other developed countries ; new concept of educational technology, its justification and the ways in which it has been implemented to improve our educational systems.	
Ed T 514	Administration of Educational	

- Technology Program 2 credits  
 An analysis of systematic designs of service programs for instruction existing in various educational institutional ; considerations of such elements as aims and purposes, organization, facilities, personnel and program evaluation system.
- Ed T 515** Curricular Integration of Instructional Media 2 credits  
 A process of curriculum development that leads to teachable instructional systems ; planning for integrative system in instructional process which includes instructional objectives, strategies, media and evaluation with an emphasis on experiences in integrating certain media into the instructional system.
- (Presequissite : Ed T 330 or Ed T 336)
- Ed T 530** Advanced Preparation of Graphic Materials 2 credits  
 Advanced techniques for developing various visual materials such as layouts and designs ; experiences in silkscreening and offset printing
- Ed T 531** Advanced Photography 3 credits  
 A study of the advanced theories and techniques of photography and applying them to the production of educational slides and filmstrips.
- Ed.T 532** Educational Motion Picture Production 3 credits  
 Theories and principles for the production of educational films ; practices in the complete production process.
- Ed T 533** Educational Radio Program Production 3 credits  
 Practical training in producing educational radio programs including program planning,

budgeting, scripting, studio management, interviewing and commentating techniques, sound-mixing, tape editing, music and sound effects, cueing, the use of support materials, audience participation, feed-back ; the programs made are tried out in teaching situations at all levels or in adult community and other out-of-school learning environments.

**Ed T 534**

Educational Television Program

Production 3 credits

Practical training in making short television teaching aid programs, including program planning budgeting, scripting, preparation of graphics, set design, direction, vision-mixing, sound-mixing, lighting, and camera operation ; the programs made are tried out in teaching situations at all levels or in adult, community or other out-of-school learning environments.

**Ed T 620**

Seminar in Educational  
Technology

2 credits

A survey and an analysis of certain problems in current educational situations which call for technology to solve them. Experiences in conducting a seminar so that resolutions to the problems are derived.

**Ed T 630**

Practicum

3 credits

Fieldwork experiences and/or certain assigned projects to be carried out by students in the field of applied educational technology.

**Ed T 512**

Principles and Theories of  
Message Design

2 credits

Principle for clear writing to communicate ideas and feelings ; theories by which the written messages are based such as learning psychology, perception and audience characteristics ; experiences in applying those principles and theories to the actual design

- of messages through various media used.
- Ed T 513** Mass Communication in Education 2 credits  
 A historical development of mass communication in education, formal and nonformal, as well as in society, politics and economy. The effects of mass communication on the programs for life-long education are mainly considered.
- Ed T 535** Design and Production for Communication 2 credits  
 Theories of communication as related to effective writing of messages ; principles for clear writing ; practices in writing of articles, radio programs news reports.
- Ed T 520** Multi - media Approach to Programmed Instruction. 2 credits  
 A development of programmed instruction and teaching machines ; experiences regarding procedures in writing programmed textbook and programmed lessons in which various media are conclusively designed.
- Ed T 500** Public Relations. 2 credits  
 Planning and administering public relations for government and private organization ; studying cases and problems of public relations.
- Ed T 536** Design for printed Materials. 2 credits  
 The design of textbook, supplement, reading materials, periodicals brochure and other types of publication.

# Special Education

## Objectives

### Hearing Impaired Program

To provide professional preparation for the hearing impaired teaching personnel, and to enable them to teach and research for professional growth which will be useful in helping those who have hearing and speaking problems.

### Structure of the Program

#### Requirements

- |                                  |               |                 |
|----------------------------------|---------------|-----------------|
| 1. Foundations of Education Area |               | 12 credit hours |
| 1.1 Required Courses             |               | 9 credit hours  |
| 1.2 Elective Courses             |               | 3 credit hours  |
| 2. Major Area                    | not less than | 27 credit hours |
| 3. Free Elective Area            | not less than | 3 credit hours  |
| 4. Thesis                        |               | 6 credit hours  |

#### Meanings of the Middle Digits of the Code Numbers

0 refers to psychology and education

1 refers to hearing and speech

2 refers to rehabilitation

3 refers to methods of teaching

#### Compulsory 22 credits

Spec Ed 501	Psycho-Social Aspects of Hearing Impairment	2 credits
Spec Ed 502	Language Development and Hearing Impairment	2 credits
Spec Ed 511	Principles of Audiology	3 credits
Speech 511	Bases of Oral Communication and Communication Disorders	3 credits
Spec Ed 513	Phonetics and Phonology	3 credits
Spec Ed 521	Aural/Oral Rehabilitation	2 credits
Spec Ed 522	Practicum 1	1 (3) credits
Spec Ed 523	Practicum 2	2 (6) credits
Spec Ed 531	Methods of Speech Teaching	2 (3) credits
Spec Ed 532	Methods of Language Teaching	2 credits

#### Elective 5 credits at least

<b>Spec Ed 503</b>	Parent Guidance	2 credits
<b>Spec Ed 504</b>	Education of Exceptional Children	2 credits
<b>Spec Ed 505</b>	Planning and Administration of Education of Exceptional Children	2 credits
<b>Spec Ed 506</b>	Seminar in Special Education	2 credits
<b>Spec Ed 507</b>	Independent Study	1-3 credits
<b>Spec Ed 524</b>	Vocational and Social Rehabilitation	2 credits
<b>Spec Ed 533</b>	Methods of School Subject Teaching	2 credits
<b>Spec Ed 534</b>	Introduction to Sign Language	2 credits
<b>Speech 621</b>	Speech Therapy in School	3 credits

### **Course Description**

<b>Spec Ed 501</b>	Psycho-Social Aspects of the Hearing Impaired	2 credits
	The effects of psycho-social aspects on communication disorders ; psychological and social characteristics of the hearing impaired ; emotional and personal adjustment ; role of the hearing impaired in family, community ; marriage and family establishment.	
<b>Spec Ed 502</b>	Language Development and Hearing Impairment	2 credits
	Development of speech and language in children ; etiology of speech and language development of normal and abnormal hearing ; early education for the young hearing-impaired child ; measurement of language ability.	
<b>Spec Ed 503</b>	Parent Guidance	2 credits
	Ways of helping parents adopt positive attitudes toward children ; information on speech and hearing problems for parents ; home speech training ; preparation of home audio-visual aids for speech training ; the use and care of hearing aids ; some ear diseases and speech organs ; possible expectations on the part of the parents toward the hearing impaired.	



- Spec Ed 504.** Education of Exceptional Children 2 credits  
Introduction to educational programs for handicapped children in and outside Thailand ; criteria for determining exceptional children ; psychological aspects of exceptional children ; teachers and administrators working with exceptional children.
- Spec Ed 505** Planning and Administration of Education of Exceptional Children 2 credits  
Organization and administrative aspects of special education programs ; legal, financial aspects of special education ; program planning ; administering special service; improvement of instruction.
- Spec Ed 506** Seminar in Special Education 2 credits  
A study of special education problems and issues in Thailand ; appraisal of current problems, trends and practices in the education of the exceptional ; welfares for the handicapped.
- Spec Ed 507** Independent study 1-3 credits  
An intensive independent study in a specific area under supervision.
- Spec Ed 511** Principles of Audiology 3 credits  
Physics of sound ; anatomy and physiology of hearing organs ; disorders of hearing ; classification of hearing loss ; audiological and otological advice ; principle of hearing measurements (both in theoretical and practical work) and hearing conservation.
- Spec Ed 513** Phonetics and Phonology 3 credits  
Introduction to articulatory phonetic and to the International Phonetic Alphabets ; articulatory descriptions of the Thai speech sounds ; articulatory features of Thai and their applications in speech training ; introduction to basic concepts in phonology ; phonological patterns of Thai ; deviant phonology ; linguistic

	approach in remediation.	
<b>Spec Ed 521</b>	Aural/Oral Rehabilitation	2 credits
	Principles of auditory training programs ; hearing aids ; selection and care of hearing aids ; the use of hearing equipments for auditory training ; speech and hearing conservation.	
<b>Spec Ed 522</b>	Practicum 1	1 (3) credits
	Group and individual work in speech clinic for not less than 45 hours.	
<b>Spec Ed 523</b>	Practicum 2	2 (6) credits
	Group and individual practice teaching to hearing impaired children for not less than 90 hours.	
<b>Spec Ed 524</b>	Vocational and Social Rehabilitation	2 credits
	Principles and methods of vocational guidance ; prevocational preparation ; vocational training and selective job placement of the hearing impaired to enable them to secure and retain suitable employment ; principles of social rehabilitation and social environment including the legislation concerning the disabled, especially the hearing impaired.	
<b>Spec Ed 531</b>	Methods of Speech Teaching	2 (3) credits
	Principles of speech teaching ; speech reading (lip reading) techniques ; analytic and synthetic methods of speech teaching ; rhythm control ; proper voice production ; speech correction and speech conservation.	
<b>Spec Ed 532</b>	Methods of Language Teaching	2 credits
	Principles of language teaching ; promotion of language learning ; construction and utilizations of teaching aids and teaching materials ; issues and trends in language teaching.	
<b>Spec Ed 533</b>	Methods of School Subject Teaching	2 credits

- General principles of teaching techniques for the hearing-impaired children in primary schools ; methods of teaching school subjects such as, arts, music, physical education, social sciences, etc. ; classroom arrangement and utilization of teaching aids for such subjects.
- Spec Ed 534** Introduction to Sign Language 2 credits  
History of sign language principles of sign language ; linguistics of sign language ; sign language in classroom teaching ; sign language for interpreters ; practicum in Thai sign language.
- Speech 511** Bases of Oral Communication and Communication Disorders 3 credits  
The production and perception of speech ; anatomy and physiology of the body related to the processes of speech and hearing ; introduction to speech disorder : types, causes and effects ; basic principles for diagnosis and therapy.
- Speech 621** Speech Therapy in School 3 credits  
Speech problems commonly found in schools ; roles of the teacher to the children with speech problems ; co-operation between teachers and parents, including speech therapists, psychologists, doctors, and others concerned ; preparation and organization of school speech therapy program ; methods and techniques for screening, evaluation, and treatment in an individual with speech problems ; emphasis on practicum.

# Developmental Psychology

## Objectives

To prepare scholars in developmental psychology who are able to teach and research either for professional growth or for a decisive relating to the field resolution of educational and social problems.

## Structure of the Program

### Requirements

- |                                  |               |                 |
|----------------------------------|---------------|-----------------|
| 1. Foundations of Education Area |               | 12 credit hours |
| 2. Major Area                    | not less than | 27 credit hours |
| 2.1 Required Courses             |               | 21 credit hours |
| 2.2 Elective Courses             |               | 6 credit hours  |
| 3. Free Elective Area            | not less than | 3 credit hours  |
| 4. Thesis                        |               | 6 credit hours  |

### Meanings of the Middle Digits of Code Numbers

- 0 refers to behavioral science
- 1 refers to social psychology
- 2 refers to developmental psychology
- 3 refers to personality psychology
- 4 refers to quantitative psychology
- 5 refers to experimental psychology
- 6 refers to physiological psychology
- 7 refers to educational psychology
- 8 refers to applied psychology
- 9 refers to independent study

### Compulsory

- |          |  |           |
|----------|--|-----------|
| Psy 501  | General Psychology                       | 3 credits |
| Psy 523  | Child Psychology                         | 3 credits |
| Psy 524  | Adolescent Psychology                    | 3 credits |
| Psy 525  | Theories of Child Development Psychology | 3 credits |
| Psy 623  | Adult Psychology                         | 3 credits |
| Psy 629  | Seminar in Developmental Psychology      | 3 credits |
| Stat 515 | Statistical Design of Experiments        | 3 credits |

(Prerequisite : Stat 513 Inferential Statistics)

## **Elective**

Psy 522	Infant Psychology	3 credits
Psy 527	Research Methods in Developmental Psychology	3 credits
Psy 627	Clinical Child Psychology	3 credits
Psy 628	Seminar in Behavior Problems of Childhood and Adolescence	3 credits
Psy 642	Measurements in Child Development	3 credits

## **Free Elective**

Psy 505	Differential Psychology	3 credits
Psy 516	Conflict and Conflict Resolution	3 credits
Psy 519	Psycho - Social Development	3 credits
Psy 521	Developmental Psychology	3 credits
Psy 526	Language Development	3 credits
Psy 553	Psychology of Learning	3 credits
Psy 554	Motivation	3 credits
Psy 555	Sensory Psychology	3 credits
Psy 556	Psychology of Perception	3 credits
Psy 557	The Emotions	3 credits
Psy 601	Seminar in General Psychology	3 credits
Psy 602	Comparative Psychology	3 credits
Psy 625	Piaget's Theory	3 credits
Psy 633	Theories of Personality	3 credits
Psy 634	Mental Hygiene	3 credits
Psy 635	Psychology of Deviant Behavior	3 credits
Psy 673	Seminar on Contribution of Buddhism to Value System	3 credits
Psy 675	Behavioral Approach to School Curriculum	3 credits
Psy 677	Psychology of Exceptional Children	3 credits
Psy 680	Sensitivity Training	3 credits
Psy 691	Independent Study	3 credits
Stat 518	Factor Analysis	3 credits
C Sc 531	Digital Computer Programming	3 credits
C Sc 532	Introduction to Computing	3 credits

- Psy 501**                      General Psychology                      3 credits  
 Scientific method : definition of psychology ; nature, function, and language of science ; understanding, explanation and theory ; the science of behavior : methods of measuring behavior, dependent - independent variables, stimulus - response variables, empirical relationships, theoretical constructs and psychological theory, the origin and status of modern psychology, pre-scientific speculation, beginning of science of psychology, influence of pragmatism, psychological testing, social psychology, statistical description and interpretation of scientific data ; biological foundation of behavior : receiving, communicating, reacting mechanisms, nervous systems ; heredity, maturation, learning theory and experiments, Freud theory, perceptions.
- Psy 523**                      Child Psychology                      3 credits  
 Orientation to developmental approach, the beginning of life, biological inheritance, prenatal development ; the newborn infant, behavior of the newborn, motor behavior ; physical development, stages of development ; language development and the function of speech in early childhood ; emotional development, emotional pattern of anger and fear, the basis of emotional well-being in early childhood, social development, early forms of social behavior, social behavior toward age peers ; intellectual development, perceptual and adaptive behavior, child's interaction with his environment.
- Psy 524**                      Adolescent Psychology                      3 credits  
 Biological, psychological and sociological perspectives of late childhood to early adulthood emphasizing on such issues as the role of

- ideology in identity formation, inter and intra society variants, opportunity for observation and interviewing.
- Psy 525** Theories of Child Development 3 credits  
 A survey of basic systematic positions in current theories of child development such as social learning theory (S-R), field theory (Kurt Lewin), psychoanalytic theory of development (Sigmund Freud), the organismic developmental theory (Heinz Werner), selected empirical research areas.
- Psy 623** Adult Psychology 3 credits  
 Characteristics of the early adulthood ; personality development during the period, the meaning of maturity, finding one's place in the world of work, efficiency and productivity, psychological factors in marital happiness, characteristics of middle and old ages ; period of transition, Adult mental abilities, mental health in old age.
- Psy 629** Seminar in Developmental Psychology 3 credits  
 Systematic study of current topics in the field of developmental psychology ; critical review of recent research and theory concerning selected behavioral problems.
- Stat 515** Statistical Designs of Experiments 3 credits  
 Fundamental concepts and basic designs : nature and purpose of experiments, measure of precision, testing hypothesis, good design, basic designs, types of error, principle of randomization, chi-square, t, and F distributions ; degrees of freedom, limitation of t-test, analysis of variance : the test of overall null hypothesis, mean square ratio, assumptions underlying F-test ; simple randomized design, analysis of variance in double - entry tables :

analysis of total sum of squares into components, computational procedure, meaning of interaction, treatment X levels designs, repeated measurement design, factorial design, replication design, split-plots design.

**Psy 522** Infant Psychology 3 credits  
Sensory, motor, cognitive, language, social and emotional development during the first two years of life.

**Psy 527** Research Methods in Developmental Psychology 3 credits  
A critical review of theory and research in several areas of developmental psychology emphasizing on current issues, evaluation of present knowledge, and methodological problems in research.

**Psy 627** Clinical Child Psychology 3 credits  
Essential conditions in child psycho-therapy especially the therapeutic process with the normal child, the handicapped child, the disturbed child and the creative child ; a therapeutic approach and the counseling with parents of problemed children ; a therapist's role in the school settings and in the child guidance clinic.

**Psy 628** Seminar in Behavior Problems of Childhood and Adolescence 3 credits  
Discussion of selected current behavior problems of childhood and adolescence ; application of current research finding and theories to provide guidelines for the solutions of problems.

**Psy 642** Measurements in Child Development 3 credits  
The history, purposes and uses of various types of tests, a survey of available tests ; the



criteria of test selection with an emphasis on techniques of measurements in child development ; test construction, validation, reliability ; administering, scoring, interpreting and their uses.

- Psy 505** Differential Psychology 3 credits  
Individual differences : individual differences in intelligence, school achievement ; special aptitudes and cognitive styles ; group differences : sex differences, age differences, race differences and social class differences ; factor producing differences : hereditary and environmental factors.
- Psy 516** Conflict and Conflict Resolution 3 credits  
Exploration of group and inter-group dimensions of conflict and conflict resolution.
- Psy 519** Psycho-Social Development : Theories and Researches 3 credits  
Theories and researches pertaining to the area of psychological development and social development of children and youth emphasizing the discussions of both theories and related problems when applying the theories to the children in Thai society and culture.
- Psy 521** Developmental Psychology 3 credits  
Principal theories concerning child development various aspects of human development from conception to senescence with special emphasis on psychological and social factors.
- Psy 526** Language Development 3 credits  
An intensive study of language development from infancy to late childhood with major emphasis on psycho - linguistics.
- Psy 553** Psychology of Learning 3 credits  
Examination and discussion of current research, and of theoretical and experimental problems

in the area of learning and behavior modification ; reinforcement, extinction, motivation, generalization, discrimination, retention and forgetting.

**Psy 554** Motivation 3 credits  
A survey of the theoretical and research literature pertaining to the topic of motivation ; consideration of the concepts of instinct, drive and motive with coverage of both animal and human studies.

**Psy 555** Sensory Psychology 3 credits  
A structural and functional examination of the basic sensory process ; investigation of the problems of sensory quality and sensory quantity with major emphasis on visual acuity, color vision, pitch discrimination, and haptic sensitivity.

**Psy 556** Psychology of Perception 3 credits  
An examination of the historical development, research, and major theoretical positions in the area of perceptual psychology ; theoretical and experimental treatment of the basic perceptual phenomena.

**Psy 557** The Emotions 3 credits  
A study of the evolutionary, ethological, and psychological significance of the emotion in personality functioning and in interpersonal and intergroup relations ; components of emotion, the individual's emotional experience, and the way in which the emotions interact with other aspects of personality.

**Psy 601** Seminar in General Psychology 3 credits  
Systematic study of current topics in psychology of general - theoretical nature.

**Psy 602** Comparative Psychology 3 credits  
A comprehensive examination and synthesis

of the principles, concept and findings of ethology and comparative psychology ; similarities and differences in theories, methods and research findings related to such basic psychological problems.

**Psy 625** Piaget's Theory 3 credits  
Biography of Piaget, intellectual organization and adaptation, cognitive development and other factors, cognitive development of Piaget : the sensory-motor period, the period of preoperational thought, the period of concrete operations and the period of logical operations ; development of thinking in adolescence ; summary and applications.

**Psy 633** Theories of Personality 3 credits  
A review of theories of personality (emphasizing structure and dynamic) such as Freud's Psychoanalytic theory, social psychological theory, Murrey's Personology, Lewin's field theory, organismic theory, factor theories, Rogers' self theory, Skinner's Stimulus Response theory ; application is validated by observational accounts, case studies and cross-cultural research.

**Psy 634** Mental Hygiene 3 credits  
A general course designed to give an understanding of the healthy personality throughout different stages of life, exploration (of) fundamental factors in human adjustment with emphasis upon the prevention of inadequate adjustment and upon the process by which maladjusted individuals may be restored to normal living.

**Psy 635** Psychology of Deviant Behavior 3 credits  
The meaning of normality ; cultural and historical aspects of the problem ; the role of anxiety ; the etiology of mental disturbances ;

- classification of disorders ; experimental approaches to the study of disorders ; preventive approaches relating to mental health, mental subnormality regarding cognitive deficit ; origins of mental deficiency.
- Psy 673** Seminar on Contributions of Buddhism to Value Systems 3 credits  
A review of principles and concepts in Buddhism; discussion of current issues or problems in Thai society emphasizing on an analysis of societal values.
- Psy 675** Behavioral Approach to School Curriculum 3 credits  
Behavioral foundation pertinent to existing social problems for curriculum research and development ; practicum in curriculum research and development in different levels of education ; the behavioral foundation emphasizing economics, political science, sociology, psychology, etc.
- Psy 677** Psychology of Exceptional Children 3 credits  
Criteria for determining exceptionality, and a survey of the major areas of exceptionality ; the individuality of each child who is exceptional which requires special attention from parents as well as teachers ; some techniques for diagnosing specific difficulties ; recent trends in the education of exceptional children with specific reference to special education in Thailand.
- Psy 680** Sensitivity Training. 3 credits  
Self-awareness and clinical sensitivity through involvement as a participant observers in the development and continuing functioning of a small group emphasizing emergent styles of interaction in roles, both explicit and implicit.

- Psy 691** Independent study 3 credits  
An intensive study of literature of special topics conducted under supervision of a faculty member. (Consent of instructor)
- Stat 518** Factor Analysis 3 credits  
Mathematical introduction : matrices, determinant, scalar products, matrix inversion, Eigen vector and transformation ; history of factor theory : Spearman's Two-factor theory, Multiple-factor theory ; correlation matrix and the factor matrix ; geometric interpretation of factors ; extraction of factors by the Centroid Method ; rotation of reference axes ; simple structure, rotation to psychological meaning ; interpretation of factors ; estimation of factors in persons ; some special problem in factor analysis ; applications of factor analysis.
- C Sc 531** Digital Computer Programming 3 credits  
Mechanized data processing concepts ; analog vs. digital computers ; history and development of digital computers ; punched cards ; Hollerith's code ; digital computer system ; concept FORTRAN, or basic language programming, arithmetic statements ; control statements ; input ; subroutines ; statistical procedures : multivariate analysis, analysis of variance, chi-square, matrix procedures.
- C Sc 532** Introduction to computing 3 credits  
Computer structure & construction of computer programs ; use of a specific programming language to solve problems over a wide range of applications of a digital computer ; the applications selected from problem areas in which no sophisticated knowledge of mathematics is required.

## **Social Psychology**

### **Objectives**

To prepare scholars in social psychology who are able to teach and research either for professional growth or for a decisive resolution of educational and social problems relating to the field.

### **Structure of the program**

#### **Requirements**

1. Foundations of Education Area  
12 credit hours
2. Major Area not less than 27 credit hours
  - 2.1 Required Courses 21 credit hours
  - 2.2 Elective Courses not less than  
6 credit hours
3. Free Elective Area not less than  
3 credit hours
4. Thesis 6 credit hours

#### **Meanings of the Middle Digits of the Code Numbers**

- 0 refers to behavioral science
- 1 refers to social psychology
- 2 refers to developmental psychology
- 3 refers to personality psychology
- 4 refers to quantitative psychology
- 5 refers to experimental psychology
- 6 refers to physiological psychology
- 7 refers to educational psychology
- 8 refers to applied psychology
- 9 refers to independent study

#### **Compulsory**

<b>Psy 501</b>	General Psychology	3 Credits
<b>Psy 511</b>	Introduction to Social Psychology	3 Credits
<b>Psy 513</b>	Advanced Social Psychology	3 Credits
<b>Psy 514</b>	Psychology of Attitudes	3 Credits

Psy 517	Group Psychology	3 Credits
Psy 617	Seminar in Social Psychology	3 Credits
Stat 515	Statistical Designs of Experiments	3 Credits
	(Prerequisite : Stat 513 Inferential Statistics)	

### **Elective**

Psy 515	Organizational Behavior	3 Credits
Psy 516	Conflict and Conflict Resolution	3 Credits
Psy 518	Research Methods in Social Psychology	3 Credits
Psy 613	Control of Human Behavior	3 Credits
Psy 616	Seminar in Social Problems	3 Credits

### **Free Elective**

Psy 519	Psycho-Social Development	3 Credits
Psy 521	Developmental Psychology	3 Credits
Psy 553	Psychology of Learning	3 Credits
Psy 554	Motivation	3 Credits
Psy 555	Sensory Psychology	3 Credits
Psy 556	Psychology of Perception	3 Credits
Psy 557	The Emotions	3 Credits
Psy 602	Comparative Psychology	3 Credits
Psy 611	Social Psychology in Industry	3 Credits
Psy 615	Social Psychology in Mental Health	3 Credits
Psy 633	Theories of Personality	3 Credits
Psy 635	Psychology of Deviant Behavior	3 Credits
Psy 673	Seminar on Contribution of Buddhism to Value System	3 Credits
Psy 677	Psychology of Exceptional Children	3 Credits
Psy 680	Sensitivity Training	3 Credits
Psy 691	Independent Study	3 Credits
Stat 518	Factor Analysis	3 Credits
C Sc 531	Digital Computer Programming	3 Credits
C Sc 532	Introduction to Computing	3 Credits

### **Course Description**

Psy 501	General Psychology	3 credits
	(See page 98)	

- Psy 511** Introduction to Social Psychology 3 credits  
 Brief reference to historical origin and development of social psychology ; relationship of philosophical and sociological thinking ; introduction to major divisions in social psychology : socialization, motivation, interpersonal perception and influence, attitude, language, and communication, leadership, group structure and behavior etc. ; presentation of concepts, theories and classical experiments.
- Psy 513** Advanced Social Psychology 3 credits  
 Intensive considerations of selected topics not being covered in other advanced courses in social psychology ; emphasis on newly developed areas of social psychology such as social facilitation, bystander intervention, imitation, conformity, altruism, aggression, etc.
- Psy 514** Psychology of Attitudes 3 credits  
 A detailed consideration of the topic of attitude formation and change, and attitude measurements, emphasizing theories and their related experimental findings ; analysis of factors related to the effectiveness of communication and persuasion in the light of experimental evidence ; various strategies and techniques of persuasion.
- Psy 517** Group Psychology 3 credits  
 Discussion of group's characteristics such as group composition, communication network, group size, seating arrangement, task and leadership ect. ; a review of mutual influences between group's characteristics and the products of group interaction such as group atmosphere, group productivity and effectiveness of the



leaders ; early and current theories of group considered together with the methods of studying behavior in group.

- Psy 617** Seminar in Social Psychology 3 credits  
Systematic study of current topics in the field of social psychology ; critical review of recent research and theory concerning selected social psychology problems.
- Stat 515** Statistical Designs of Experiments 3 credits  
(See page 99)
- Psy 515** Organizational Behavior 3 credits  
A study of principles of organizational behavior ; their application to higher education administration in Thailand based on behavioral science and/or other related scientific approaches.
- Psy 516** Conflict and Conflict Resolution 3 credits  
(See page 101)
- Psy 518** Research Methods in Social Psychology 3 credits  
One hour lecture and two two-hour laboratory periods per week. A lecture-and-laboratory course dealing with methods of studying behavior in the social context ; topics including social perception, interaction in small groups, communication and attitude change ; techniques involved in laboratory experimentation, field experimentation, and attitude scale construction; training in writing experimental reports ; practical experiences acquired through individual and group projects.
- Psy 613** Control of Human Behavior 3 credits

	Emphasis on research on the effectiveness of methods such as psychotherapy, programmed learning, brainwashing, teaching, and propaganda procedures ; discussion in ethical and moral issues related to the control of human behavior.	
<b>Psy 616</b>	Seminar in Social Problem Critical discussions of current social problems applying recent research study and theories as guidelines to solve these problems.	3 credits
<b>Psy 519</b>	Psycho-Social Development : Theories and Researches (See page 101)	3 Credits
<b>Psy 521</b>	Developmental Psychology (See page 101)	3 credits
<b>Psy 553</b>	Psychology of Learning Examination and discussion of current research, and of theoretical and experimental problems in the area of learning and behavior modification; reinforcement, extinction, motivation, generalization, discrimination, retention and forgetting.	3 credits
<b>Psy 554</b>	Motivation (See page 102)	3 credits
<b>Psy 555</b>	Sensory psychology (See page 102)	3 credits
<b>Psy 556</b>	Psychology of Perception (See page 102)	3 credits
<b>Psy 557</b>	The Emotion (See page 102)	3 credits
<b>Psy 602</b>	Comparative Psychology (See page 102)	3 credits
<b>Psy 611</b>	Social Psychology in Industry Application of psychological principles and	3 credits

	research methodology to human problems in industry including personnel selection and appraisal, motivation and work leadership, and human performance.	
<b>Psy 615</b>	Social Psychology in Mental Health An application of concepts, theories, and research findings in social psychology to the problems of social adjustment and the prevention of inadequate adjustment; the interplay of social pressures and individual personality producing situational stress and the need to conform.	3 credits
<b>Psy 633</b>	Theories of Personality (See page 103)	3 credits
<b>Psy 635</b>	Psychology of Deviant Behavior (See page 103)	3 credits
<b>Psy 673</b>	Seminar on Contributions of Buddhism to Value Systems (See page 104)	3 credits
<b>Psy 677</b>	Psychology of Exceptional Children (See page 104)	3 credits
<b>Psy 680</b>	Sensitivity Training (See page 104)	3 credits
<b>Psy 691</b>	Independent Study (See page 105)	3 credits
<b>Stat 518</b>	Factor Analysis (See page 105)	3 credits
<b>C Sc 531</b>	Digital Computer Programming (See page 105)	3 credits
<b>C Sc 532</b>	Introduction to Computing (See page 105)	3 credits

# Experimental Psychology

## Objectives

To prepare scholars in experimental psychology who are able to teach and research either for professional growth or for a decisive relating to the field resolution of educational and social problems.

## Structure of the Program

### Requirements

- |                                    |                              |
|------------------------------------|------------------------------|
| 1. Foundations of Educational Area | 12 credit hours              |
| 2. Major Area                      | less than 27 credit hours    |
| 2.1 Required Courses               | 21 credit hours              |
| 2.2 Elective Courses               | not less than 6 credit hours |
| 3. Free Elective Area              | not less than 3 credit hours |
| 4. Thesis                          | 6 credit hours               |

### Meanings of the Middle Digits of the Code Numbers

- 0 refers to behavioral science
- 1 refers to social psychology
- 2 refers to developmental psychology
- 3 refers to personality psychology
- 4 refers to quantitative psychology
- 5 refers to experimental psychology
- 6 refers to physiological psychology
- 7 refers to educational psychology
- 8 refers to applied psychology
- 9 refers to independent study

## Compulsory

- |                 |   |           |
|-----------------|---|-----------|
| <b>Psy 501</b>  | General Psychology                      | 3 credits |
| <b>Psy 551</b>  | Introduction to Experimental Psychology | 3 credits |
| <b>Psy 553</b>  | Psychology of Learning                  | 3 credits |
| <b>Psy 561</b>  | Physiological Psychology                | 3 credits |
| <b>Psy 655</b>  | Advanced Experimental Psychology        | 3 credits |
| <b>Psy 658</b>  | Seminar in Experimental Psychology      | 3 credits |
| <b>Stat 515</b> | Statistical Designs of Experiments      | 3 credits |

(Prerequisite : Stat. 503)

## Elective

Psy 554	Motivation	3 credits
Psy 556	Psychology of perception	3 credits
Psy 557	The Emotions	3 credits
Psy 652	Perception Sensory Process	3 credits
Psy 656	Measurement Theory and Psychometric	3 credits
Psy 657	Laporatory Techniques in Experimental Psychology	3 credits

## Free Elective

Psy 505	Differential Psychology	3 credits
Psy 602	Comparative Psychology	3 credits
Psy 647	Mathematical Psychology	3 credits
Psy 651	Behavior Theories	3 credits
Psy 653	Advanced Sensation and Perception	3 credits
Psy 654	Advanced Motivation and Emotion	3 credits
Psy 659	Animal Behavior	3 credits
Psy 662	Advanced Physiological Psychology	3 credits
Psy 680	Sensitivity Training	3 credits
Psy 691	Independent Study	3 credits
Stat 518	Factor Analysis	3 credits
Stat 646	Quantitative Methods	3 credits
C Sc 531	Digital Computer Programming	3 credits
C Sc 532	Introduction to Computing	3 credits

## Course Description

Psy 501	General Psychology (See page 98)	3 credits
Psy 551	Introduction to Experimental Psychology	3 credits

A general survey in experimental methodologies and logics, scientific concepts, measurements, psycho-physical methods and psychological scaling; experiments in laboratory environment in motivation, learning and perception.

<b>Psy 553</b>	Psychology of Learning (See page 110)	3 credits
<b>Psy 561</b>	Physiological Psychology Brain and behavior focusing on neural and endocrinic mechanisms operative in the control and modification of behavior; sensory mechanisms from the receptors to cerebral cortex; anatomy of the nervous system; neurological phenomena associated with several sets of behavior.	3 credits
<b>Psy 655</b>	Advanced Experimental Psychology Emphasis on the formulation of research problems, identifications of the problems, formulation of testable hypotheses, identification and control of relevant variables, presentation and interpretation of data; individual research projects	3 credits
<b>Psy 658</b>	Seminar in Experimental Psychology Systematic study of current topics in the field of experimental psychology; critical review of recent research and theories concerning selected experimental problems.	3 credits
<b>Stat 515</b>	Statistical Designs of Experiment Fundamental concepts and basic designs : nature and purpose of experiments, measure of precision, testing hypothesis, good design, basic designs, types of error, principle of randomization, chi-square, t, and F distributions, degrees of freedom, limitation of t-test, analysis of variance : the test of overall null hypothesis, mean square ratio, assumptions underlying F-test, simple randomized design, analysis of variance in double-entry tables : analysis of total sum of squares into components, computational procedure, meaning of interaction, treatment X levels designs,	3 credits

<b>Psy 554</b>	repeated measurement design, factorial design, replication design, split-plots design. Motivation (See page 102)	3 credits
<b>Psy 556</b>	Psychology of Perception (See page 102)	3 credits
<b>Psy 557</b>	The Emotions (See page 102)	3 credits
<b>Psy 652</b>	Sensory Processes A basic understanding of human senses; relation between energy and receptors; electrophysiology and sensory theories; vision, audition, taste, smell, kinesthesia; measurements of energy and sensations.	3 credits
<b>Psy 656</b>	Measurement Theory and Psychometric Measurement theory involved in the construction and evaluation of psychological measuring instruments emphasizing on scaling methods and their use in psychological research and evaluation.	3 credits
<b>Psy 657</b>	Laboratory Techniques in Experimental Psychology Psychological experiments in laboratory environments; designs and constructions of apparatus and instruments used in experiments; memory drum, pursuit roter, Skinner box; electronic concepts and devices; relay circuit, times revitching circuits.	3 credits
<b>Psy 505</b>	Differential Psychology Individual differences : individual differences in intelligence, school achievement, special aptitudes and cognitive styles; group differences : sex differences, age differences, race differences and social class differences;	3 credits

- factor producing differences : hereditary and environmental factors.
- Psy 602** Comparative Psychology 3 credits  
A comprehensive examination and synthesis of the principles, concept and findings of ethology and comparative psychology; similarities and differences in theories, methods and research findings related to such basic psychological problems.
- Psy 647** Mathematical Psychology 3 credits  
A survey of mathematical theories of choice behavior, decision making, psychophysical judgements, utility and motivation, learning and concept formation.
- Psy 651** Behavior Theories 3 credits  
An advanced course in exploration of contemporary theories in learning, motivation, perception, memory, choice behavior and decision making; simulation of mathematical models of behavior on a computer in conjunction with empirical experimentation.
- Psy 653** Advanced Sensation and Perception 3 credits  
Consideration of experimental methodology and recent findings in the areas of sensation and perception, laboratory work and or individual research projects.
- Psy 654** Advanced Motivation and Emotions 3 credits  
Consideration of experimental methodology and recent findings in areas of motivation and emotion; laboratory work and/or individual research projects.
- Psy 659** Animal Behavior 3 credits  
A comparative and phylogenetic approach to the study of behavior, with special emphasis on sensory processes, instinctive behavior, the genetics of behavior.



<b>Psy 622</b>	Advanced Physiological Psychology 3 credits Neural mechanism of behavior emphasizing information-processing systems of the brain; discussions in the areas of sensory, learning, and memory functions.
<b>Psy 680</b>	Sensitivity Training 3 credits Self-awareness and clinical sensitivity through involvement as a participant observer in the development and continuing function of a small group emphasizing emergent styles of interaction in roles, both explicit and implicit.
<b>Psy 691</b>	Independents Study 3 credits An intensive study of literature of special topics conducted under supervision of a faculty member. (Consent of instructor)
<b>Stat 518</b>	Factor Analysis 3 credits (See page 105)
<b>Stat 646</b>	Quantitative Methods 3 credits Basic mathematical concepts : points, constants, variables sets, mapping, relations, functions; linear, logarithmic, complex functions; calculus : differentials integral; probability density functions : binomial, poisson, normal, $\chi^2$ , t, F; goodness of fit and trends differences.
<b>C Sc 531</b>	Digital Computer Programming 3 credits (See page 105)
<b>C Sc 532</b>	Introduction to computing 3 credits (See page 105)

# **Educational Psychology**

## **Objectives**

To prepare scholars in educational psychology who are able to teach and research either for professional growth or for a decisive resolution of educational and social problems relating to the field.

## **Structure of the Program**

### **Requirements**

- |                                  |               |                 |
|----------------------------------|---------------|-----------------|
| 1. Foundations of Education Area |               | 12 credit hours |
| 2. Major Area                    |               | 27 credit hours |
| 2.1 Required Courses             | not less than | 20 credit hours |
| 2.2 Elective Courses             | not less than | 7 credit hours  |
| 3. Free Elective Area            | not less than | 3 credit hours  |
| 4. Thesis                        |               | 6 credit hours  |

### **Meanings of the Middle Digits of the Code Numbers**

- 0 refers to behavioral science
- 1 refers to social psychology
- 2 refers to developmental psychology
- 3 refers to personality psychology
- 4 refers to quantitative psychology
- 5 refers to experimental psychology
- 6 refers to physiological psychology
- 7 refers to educational psychology
- 8 refers to applied psychology
- 9 refers to independent study

### **Compulsory**

- |                     |  |           |
|---------------------|--|-----------|
| <b>Ed Psych 511</b> | Human Learning and Motivation                        | 2 credits |
| <b>Ed Psych 551</b> | Tools and Techniques of Psychoeducational Assessment | 3 credits |
| <b>Ed Psych 512</b> | Behavior Modification                                | 2 credits |
| <b>Ed Psych 513</b> | Mental Health of School Children                     | 2 credits |
| <b>Ed Psych 641</b> | Seminar on Learning and Teaching Problems            | 3 credits |
| <b>Ed Psych 642</b> | Seminar on Current Issues in Educational Psychology  | 3 credits |

Ed Psych 514	Personality and Education	3 credits
Ed Psych 611	Group Behavior	2 credits
<b>Elective</b>		(7 credits at least)
Guid 533	Guidance in Secondary School	3 credits
Psy 505	Differential Psychology	3 credits
Psy 519	Psycho - Social Development	3 credits
Psy 523	Child Psychology	3 credits
Psy 524	Adolescent Psychology	3 credits
Psy 525	Theories of Child Development	3 credits
Psy 625	Piaget's Theory	3 credits
Psy 627	Clinical Child Psychology	3 credits
Psy 635	Psychology of Deviant Behavior	3 credits
Ed Psych 652	Research Method in Educational Psychology	2 credits
Psy 677	Psychology of Exceptional Children	3 credits

## Course Description

Ed Psych 511	Human Learning and Motivation	2 credits
	The meaning and nature of learning; learning process; theories of learning : stimulus-response association, and the field theory; transfer of learning; factors of learning; motivation and learning; rewards and punishment; human nature; human needs; emotion and adjustment; learning and behavior change; evaluation of learning.	
Ed Psych 551	Tools and Techniques of Psychoeducational Assessment	3 credits
	Survey of methods, techniques and instruments for measuring individual differences in behavior, intelligence, etc; some methods of test construction; analysis of standardized tests; criteria for evaluating and selecting psychological tests; values and limitations of tests; laboratory experience with psychoeducational tests.	
Ed Psych 512	Behavior Modification	2 credits

A survey of approaches to behavior change in an attempt to interpret and reconcile them within a reinforcement - learning model; a humanistic behavior modification system including factors of attention, emotion, communication, and cognition; the application of these approaches within the educational system.

**Ed Psych 513** Mental Health of School Children 2 credits  
The factors involved in child development (preschool period, early school years, intermediate years, adolescence) and the problems of each period; the preventive and remedial phases of mental health; emphasis on factors favoring prevention and resolution of behavior difficulties and evaluation of school programs on basis of their contribution to mental health.

**Ed Psych 641** Seminar on Learning and Teaching problems 3 credits  
Skills in the psychological analysis of educational problems ; some specific psychological approaches ; learning and teaching problems from various psychological perspectives ; experiment with alternate teaching approaches to foster learning in children experiencing difficulty.

**Ed Psych 642** Seminar on Current Issues in Educational Psychology 3 credits  
Ideas involved in current issues in educational psychology ; evaluation of present knowledge and methodological problems in psychoeducational research ; discussion pertaining to pertinent issues of educational problems.

**Ed Psych 514** Personality and Education 3 credits  
Personality theory and research related to instruction, classroom management, and counseling ; principles of personality develop-

ment, behavior change of various personality theories with reference to educational applications.

- Ed Psych 611** Group Behavior 2 credits  
Group research and theory focusing on investigation of interpersonal relationship ; communication structures ; status and power relations ; role differentiation ; group uniformity ; group influence on individual's behavior and problem solving behavior including discussion of a group acting as a mob.
- Guid 533** Guidance in Secondary School 3 credits  
The functions of guidance in secondary school ; organization and administration of the pupil personnel services emphasising on student's life adjustment and career development, methods of identifying guidance needs of secondary school students ; an examination of current guidance programs and problems in schools.
- Psy 505** Differential Psychology 3 credits  
(See page 101)
- Psy 519** Psycho-Social Development :  
Theories and Researches 3 credits  
(See page 101)
- Psy 523** Child Psychology 3 credits  
Orientation to developmental approach, the begining of life, biological inheritance, prenatal development ; the newborn infant, behavior of the newborn, motor behavior ; physical development, stages of development, language and the function of speech in early childhood ; emotional development, emotional pattern of anger and fear, the basis of emotional well-being in early childhood, social development, early forms of social behavior, social behavior

- toward age peers ; intellectual development perceptual and adaptive behavior, child's interaction with his environment.
- Psy 524** Adolescent Psychology 3 credits  
Biological, psychological and sociological perspectives of late childhood to early adulthood emphasizing on such issues as the role of ideology in identity formation, inter and intrasociety variants, opportunity for observation and interviewing.
- Psy 525** Theories of Child Development 3 Credits  
A survey of basic systematic positions in current theories of child development such as social learning theory (S-R), field theory (Kurt Lewin), psychoanalytic theory of development (Sigmund Freud), the organismic developmental theory (Heinz Werner), selected empirical research area. areas.
- Psy 625** Piaget's Theory 3 credits  
(See page 103)
- Psy 627** Clinical Child Psychology 3 credits  
Essential conditions in child psycho-therapy especially the therapeutic process with the normal child, the handicapped child the disturbed child and the creative child ; a therapeutic approach and the counseling with parents of problem children ; a therapist's role in the school settings and in the child guidance clinic.
- Psy 635** Psychology of Deviant Behavior 3 credits  
(See page 103)
- Ed Psych 652** Seminar in Research Methods in Educational Psychology 2 credits  
Research strategies reflecting some recent developments in psychological theory and research ; discussion of alternative strategies

**Psy 677**

of research where distribution statistics would be inappropriate ; analyses of autobiographical and biographical materials, case studies, observation and other types of ideographic studies with a view to their potential contribution to educational research and methodology.

Psychology of Exception Children 2 credits  
(See page 104)

# Library Science

## Objectives

1. To produce efficient librarians who are able to administer and manage various types of libraries effectively.
2. To provide professional preparation for Library Science instructors
3. To promote ability to do research work in the field.

## Structure of the Program

### Requirements

- |                                     |                      |
|-------------------------------------|----------------------|
| 1. Foundations of Education Area    | 12 credit hours      |
| 2. Major Area not less than         | 27 credit hours      |
| 2.1 Required Courses                | 12 - 18 credit hours |
| 2.2 Elective Courses                | 6 - 16 credit hours  |
| 2.3 Practicum                       | 3 credit hours       |
| 3. Free Elective Area not less than | 3 credit hours       |
| 4. Thesis                           | 6 credit hours       |

### Meanings of the Middle Digits of the Code Numbers

- 0 refers to foundations and philosophy
- 1 refers to techniques
- 2 refers to activities and public relations
- 3 refers to administration and services
- 4 refers to reference and bibliography
- 5 refers to practicum and student teaching

### Compulsory 12 - 18 credits from the following courses :

- |          |  |           |
|----------|--|-----------|
| L SC 501 | Development of Libraries and Information Centers     | 2 credits |
| L Sc 510 | Selection and Acquisition of Educational Materials   | 2 Credits |
| L Sc 511 | Bibliographic Organization and Control I             | 3 credits |
| L Sc 512 | Bibliographic Organization and Control II            | 3 credits |
| L Sc 513 | Organization and Control of Non-Print Materials      | 2 credits |
| L Sc 514 | Research Methods in Library and Information Sciences | 2 credits |



L Sc 540	Reference and Information Services	2 credits
L Sc 631	Seminar in Library and Information Services	2 credits

**Elective 6** - 16 credits from the following groups of courses :

**Group 1 University Libraries** Required L. Sc. 634.

L Sc 502	Education for Library and Information Sciences	3 credits
L Sc 515	Educational Media in the Library and Information Center	2 credits
L Sc 541	Bibliography : Theory and Techniques	2 credits
L Ce 611	Introduction to Information Science	3 credits
L Sc 612	Information Storage and Retrieval	3 credits
L Sc 613	Quantitative Methods	2 credits
L Sc 614	Library Effectiveness	2 credits
L Sc 615	Library Automation	3 credits
L Sc 616	Classification	3 credits
L Sc 632	Systems Analysis in Library	3 credits
L Sc 634	College and University Libraries	3 credits
L Sc 636	Library and Information Sources for Research	2 credits
L Sc 638	Independent Study	2 - 3 credits
L Sc 640	Information Sources and Services in the Humanities	3 credits
L Sc 641	Information Sources and Services in the Social Sciences	3 credits
L Sc 642	Information Sources and Services in the Sciences and Technology	3 credits
L Sc 643	Information Sources and Services in Education	3 credits
L Sc 644	Information Sources in Buddhism	3 credits
L Sc 647	Government Publications	3 credits

This group takes only one course out of L. Sc. 640, L. Sc. 641,

This group takes only one course out of L. Sc. 640, L. Sc. 641, L. Sc. 642.

**Group 2 School Libraries** Required L. Sc. 633.

L Sc 515	Educational Media in Library and Information
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	Center	2 credits
<b>L Sc 542</b>	Indexing and Abstracting	2 credits
<b>L Sc 614</b>	Library Effectiveness	2 credits
<b>L Sc 620</b>	Story Telling	2 credits
<b>L Sc 621</b>	Reading Guidance for Children and Young Adults	2 credits
<b>L Sc 633</b>	The School Libraries	3 credits
<b>L Sc 638</b>	Independent Study	2 - 3 credits
<b>L Sc 643</b>	Information Sources and Services in Education	3 credits
<b>L Sc 645</b>	Library Materials and Services for Children	3 credits
<b>L Sc 646</b>	Library Materials and Services for Young Adults	3 credits
<b>L Sc 647</b>	Government Publications	3 credits

**Group 3 Public Libraries Required L. Sc. 635.**

<b>L Sc 503</b>	The Library and Information Center in the Community	2 credits
<b>L Sc 515</b>	Educational Media in Library and Information Center	2 credits
<b>L Sc 542</b>	Indexing and Abstracting	2 credits
<b>L Sc 614</b>	Library Effectiveness	2 credits
<b>L Sc 620</b>	Story Telling	2 credits
<b>L Sc 621</b>	Reading Guidance for Children and Young Adults	2 credits
<b>L Sc 622</b>	Adult Reading	2 credits
<b>L Sc 635</b>	The Public Library	3 credits
<b>L Sc 638</b>	Independent Study	2 - 3 credits
<b>L Sc 639</b>	Local Educational and Cultural Materials	2 credits
<b>L Sc 644</b>	Information Sources in Buddhism	3 credits
<b>L Sc 645</b>	Library Materials and Services for Children	3 credits
<b>L Sc 646</b>	Library Materials and Services for Young Adults	3 credits
<b>L Sc 647</b>	Government Publications	3 credits



- services; cataloging and classification of non - print materials; emphasis is on storage, dissemination, and maintenance.
- L Sc 514** Research Methods in Library and Information Sciences 2 credits  
Methods and techniques of research in library and information sciences, interpretation of data and implications for improvement of library information processes and services, review of research literature in the field.
- L Sc 540** Reference and Information Services 2 credits  
History and principles of reference and information services; survey of sources including determining reference sources and services. (required by Thai readers)
- L Sc 631** Seminar in Library and Information Services 2 credits  
A study of problems and trends in a library and an information center.

**Major:**

**Group 1 University Libraries**

- L Sc 502** Education for Library and Information Sciences 3 credits  
A study to history, development, trends and problems of education for library and information sciences in Thailand and abroad, including philosophy, principles, program planning, teaching/learning methods, supporting resources.
- L Sc 515** Educational Media in the library and Information Center 2 credits  
A study of the role, methods and techniques of various types of media used for management, handling and programming to enhance the services of a library and information center.
- L Sc 541** Bibliography : Theory and Technique 2 credits

A study of meaning, types, and values of bibliography techniques; criteria and methods in compiling, controlling, and servicing.

- L Sc 611** Introduction of Information Science 3 credits  
A survey of the subject content, orientations, methodologies and major works in information science. Emphasis is on surveying the research literature; the practical aspects of information retrievals, including the application of information technology.
- L Sc 612** Information Storage and Retrieval 3 credits  
Techniques and technologies in information storage and retrieval, including problems and surveys in the field.
- L Sc 613** Quantitative Methods 2 credits  
An introduction to statistical and bibliometric techniques with emphasis placed on the application of these techniques to library and information sciences.
- L Sc 614** Library Effectiveness 2 credits  
An introduction to the quantitative evaluation of library service to its users; a survey of appropriate methods for measuring the service and the use of these measures to improve service.
- L Sc 615** Library Automation 3 credits  
Structure and principles of operation of computers and auxiliary equipments; basics of FORTRAN programming language and file organization techniques; emphasis is on library applications including possibilities and limitations; analysis and design of computerized library management systems (acquisition, cataloging, circulation and information retrieval systems)

- L Sc 616** Classification 3 credits  
A subject analysis of the substantive contents of documents with emphasis on structure, theory of classification, and indexing; methodology for systematic display and organization.
- L Sc 632** Systems Analysis in Library 3 credits  
A systems approach to analyzing the problems of planning, controlling and improving sequences of operations.
- L Sc 634** College and University Libraries 3 credits  
A study of administration and services in college and university libraries.
- L Sc 636** Library and Information Sources for Research 2 credits  
Distribution and extent of library resources and information centers for advanced study and research; methods of surveying library facilities; library cooperation.
- L Sc 638** Independent Study 2 - 3 credits  
An independent study for an individual or a group of individuals. The course is open to persons who are interested in studying particular topics under the supervision of an instructor.
- L Sc 640** Information Sources and services in the Humanities 3 credits  
A survey and an examination of information sources in each discipline of the humanities. Emphasis is given to Thai and Southeast Asian source; a study of appropriate techniques for retrieval and dissemination of information, and generation of needed sources.
- L Sc 641** Information Sources and Services in the Social Sciences 3 credits  
A survey and an examination of information

sources in each discipline of the social sciences. Emphasis is given to information sources in Thailand and Southeast Asian countries; a study of appropriate techniques for retrieval and dissemination of information, and generation of required sources.

- L Sc 642** Information Sources and Services in the Sciences and Technology 3 credits  
A survey and an examination of information sources in each discipline of the sciences and technology. Emphasis is given to information sources in Thailand and Southeast Asian countries including a study of appropriate techniques for retrieval and dissemination of information, and generation of required sources.
- L Sc 643** Information Sources and Services in Education 3 credits  
A survey and an examination of various information sources in education with emphasis being placed on information sources in Thailand and other countries in Southeast Asia. Techniques in retrieving and dissemination of information are explored; including the generation of needed sources.
- L Sc 644** Information Sources in Buddhism 3 credits  
A study of information sources in Buddhism which appear in various forms such as manuscripts, inscriptions, and printed forms. A study also covers mural paintings and sculpture of both sects, Theravad and Acharavad. Appropriate techniques in retrieval and dissemination of such information are studied.
- L Sc 647** Government Publication 3 credits  
A study and an examination of publications issued by the Thai Government, state enterprises, governments of foreign countries

international organizations. A study of methods and problems in acquisition, handling, and dissemination.

**Group 2 School Libraries**

- |                 |  |               |
|-----------------|--|---------------|
| <b>L Sc 515</b> | Educational Media in Library and Information Center<br>(See group 1)   | 2 credits     |
| <b>L Sc 542</b> | Indexing and Abstracting<br>A study of meaning, types, and values of indexing and abstracting ; criteria and methods in compiling, controlling and servicing.  | 2 credits     |
| <b>L Sc 614</b> | Library Effectiveness<br>(See group 1)   | 2 credits     |
| <b>L Sc 620</b> | Story Telling<br>Fundamental principles of the art of storytelling, planning of story hours, location of suitable materials for use, and the techniques of learning and presenting the story, a study and selection of literature appropriate for oral presentation to children of all ages. | 2 credits     |
| <b>L Sc 621</b> | Reading Guidance for Children and Young Adults<br>Psychology of reading, reading techniques and appropriate library programs and activities to assist children and young adults.   | 2 credits     |
| <b>L Sc 633</b> | The School Libraries<br>Administration and services in a school library with an emphasis on integration of study and teaching and the use of library and information centers.  | 3 credits     |
| <b>L Sc 638</b> | Independent Study<br>(See group 1)   | 2 - 3 credits |
| <b>L Sc 643</b> | Information Sources and Services in Education<br>(See group 1)   | 3 credits     |



- L Sc 645** Library Materials and Services for Children 3 credits  
 Historical development of children's books, types of children's literature and media, reading needs and interests of children of different ages around the world. Students are encouraged to write and translate children's book from foreign languages ; development of ability to select and acquire children's materials ; including provision of appropriate library programs and services.
- L Sc 646** Library Materials and Services for Young Adults 3 credits  
 Historical development of young adults, kinds of literature for young adults, needs and interests of young adults around the world in reading. Ability in selection and acquisition of literature for young adults is emphasized ; including development of appropriate library information services.
- L Sc 647** Government Publications 3 credits  
 (See group 1)

### Group 3 Public Libraries

- L Sc 503** The Library and Information Center in the Community 2 credits  
 A Study of roles of a library and information center in the community, their administration, services and inter-relationship.
- L Sc 515** Educational Media in Library and Information Center 2 credits  
 (See group 1)
- L Sc 542** Indexing and Abstracting 2 credits  
 (See group 1)
- L Sc 614** Library Effectiveness 2 credits  
 (See group 1)

<b>L Sc 620</b>	Story Telling (See group 1)	2 credits
<b>L Sc 621</b>	Reading Guidance for Children and Young Adults (See group 1)	2 credits
<b>L Sc 622</b>	Adult Reading Contemporary adult books, reading interests, improving techniques and library activities for promoting reading habits and providing reading guidance, role of the library in literacy projects and adult education ; public library selection policies for educational materials.	2 credits
<b>L Sc 635</b>	The Public Library A study of administration and services in different types of public libraries.	3 credits
<b>L Sc 638</b>	Independent Study (See group 1)	2 - 3 credits
<b>L Sc 639</b>	Local Educational and Cultural Materials A study of principles and methods in acquiring, handling and servicing local educational and cultural materials, including explaining indigenous ways of communication for wide information flow.	2 credits
<b>L Sc 644</b>	Information Sources in Buddhism (See group 1)	3 credits
<b>L Sc 645</b>	Library Materials and Services for Children (See group 1)	3 credits
<b>L Sc 646</b>	Library Materials and Services for Young Adults (See group 1)	3 credits
<b>L Sc 647</b>	Government Publications (See group 1)	3 credits
<b>L Sc 650</b>	Practicum in Library and Information Center	3 credits

Supervised activities in a library and an information center to enhance the students' experience and awareness of the problem and operation.

# THAI

## Objectives

To provide professional preparation that will make the student knowledgeable and skillful in Thai, capable of teaching Thai efficiently, and able to fill leadership role in improving learning and teaching Thai.

## Structure of the Program

### Requirements

- |   |                 |
|---|-----------------|
| 1. Foundations of Education Area                | 12 credit hours |
| 2. Major Area not less than                     | 27 credit hours |
| 2.1 Required Course in Language and Linguistics | 14 credit hours |
| 2.2 Required Courses in Literature              | 13 credit hours |
| 3. Free Elective Area not less than             | 3 credit hours  |
| 4. Thesis                                       | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

- 1 refers to language and linguistics
- 2 refers to literature

## Compulsory

### Language and Linguistics

Thai 511	Thai Structure (Prerequisite of Thai 513)	2 credits
Thai 512	Loan Words in Thai	2 credits
Thai 513	Applied Linguistics	2 credits
Thai 514	Interpretative Reading	2 credits
Thai 611	Prose and Poetry Writing	3 credits
Thai 612	Seminar in Thai Usage	3 credits

### Literature

Thai 521	Literary Works in King Narai's and King Boromkod's Periods	2 credits
Thai 522	Literary Works in the Early Ratanakosin Period	2 credits

Thai 523	Literary Works between 2411 - 2475 B.E.	2 credits
Thai 524	Contemporary Literature	2 credits
Thai 621	Thai Folklore as Related to the Thai Language and Literature	2 credits
Thai 622	Seminar in Trends of Research Activities in Thai Language and Literature	3 credits

## **Course Description**

Thai 511	Thai Structure Studies in Thai Phonology and Thai Syntax.	2 credits
Thai 512	Loan Words in Thai A study of loan words in Thai and their past and present influence upon the Thai Language.	2 credits
Thai 513	Applied Linguistics A review of current linguistic theories and their implication and application on language learning and teaching.	2 credits
Thai 514	Interpretative Reading A practice in interpretative reading from selected texts to enable students to differentiate facts from opinions in those texts.	2 credits
Thai 611	Prose and Poetry Writing The improving of writing skills in various forms of prose and certain types of poetry, according to individual aptitude and interest, the course also including criticism of the works.	3 credits
Thai 612	Seminar in Thai Usage A study of usage and language problems occurring in society ; the solving of such problems based on linguistics and the language arts.	3 credits
Thai 521	Literary Works in King Narai's and King Boromkod's Periods A study of the lives and important works of the poets of these periods, e.g. King Boromkod, Phra-Maharajkru, Sripraj, Phra-Srimahosod and Prince Dhamathibet.	2 credits

- Thai 522** Literary Works in the Early Ratanakosin Period 2 credits  
A study of the works of poets in the reigns of King Rama I, Rama II, Rama III, with an emphasis on certain outstanding figures, the influence on their works ; and a comparative study of their metrical forms, diction, styles, thoughts and messages.
- Thai 523** Literary Works between 2411 - 2475 B.E. 2 credits  
A study of literature during this period in order to analyze changes in Thai literature caused by foreign influence.
- Thai 524** Contemporary Literature 2 credits  
A study of modern literary styles and techniques an analysis of the writers' purposes and the influences the writers exert on society and vice versa in order to develop the ability to evaluate critically in detail.
- Thai 621** Thai Folklore as Related to the Thai Language and Literature 2 credits  
An analysis of the value of folklore, e.g. folktales, proverbs, riddles etc. with an emphasis on the significance and relationship of folklore to language and literature.
- Thai 622** Seminar in Trends of Research Activities in Thai Language and Literature 3 credits  
A study of the methods and research works of important experts in Thai language and literature as examples for further practice in research.

# English

## Objectives

To provide professional preparation that will make the student knowledgeable and skillful in using English, having sufficient knowledge in linguistics and literature, capable of teaching English efficiently, and to inculcate aesthetic taste suitable for the educated

## Structure of the Program

### Requirements

- |                                  |               |                 |
|----------------------------------|---------------|-----------------|
| 1. Foundations of Education Area |               | 12 credit hours |
| 2. Major Area                    | not less than | 27 credit hours |
| 2.1 Required Major Courses       |               | 26 credit hours |
| 2.1.1 Language                   |               | 12 credit hours |
| 2.1.2 Linguistics                | 6 or          | 8 credit hours  |
| 2.1.3 Literature                 | 6 or          | 8 credit hours  |
| 2.2 Elective Courses             |               | 1 credit hours  |
| 3. Free Elective Area            | not less than | 3 credit hours  |
| 4. Thesis                        |               | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

#### Language and Literature

- 1 refers to reading
- 2 refers to writing
- 3 refers to oral
- 4 refers to literature
- 5 refers to translation

#### Linguistics

- 0 refers to general
- 1 refers to sound
- 2 refers to grammar
- 3 refers to teaching

### Compulsory

Language 12 credits

Eng 511 Reading I 2 credits

Eng 521 Writing I 2 credits

Eng 522	Writing II	2 credits
Eng 531	Oral Comprehension and Expression	2 (4) credits
Eng 532	Oral Comprehension and Expression II	2 (4) credits
Eng 551	Translation I	2 credits
<b>Linguistics</b> 6 or 8 credits		
L 501	An Outline of General Linguistics	2 credits
L 511	Studies in English Phonology	2 credits
L 621	Studies in English Syntax	2 credits
L 631	Seminar in the Teaching of English as a Foreign Language	2 credits
<b>Literature</b> 6 or 8 credits		
Eng 541	English and American Prose and Poetry I	2 credits
Eng 542	European and American Drama I	2 credits
Eng 641	English and American Prose and Poetry II	2 credits
Eng 642	European and American Drama II	2 credits
Eng 611	Reading II	1 (2) credits
Eng 631	Oral Comprehension and Expression III	1 (2) credits
Eng 651	Translation II	1 (2) credits

Remarks : Students may select literature courses as electives

### **Course Description**

Eng 511	Reading I	2 credits
	Practice in reading for accurate information to enable students to read and understand texts in various fields of study and in making sensible assessments of materials read.	
Eng 521	Writing I	2 credits
	Practice in writing expository and argumentative essays, critical reviews, precis, and social and business letters.	



<b>Eng 522</b>	Writing II Continuation of Writing I. Practice in procedures and techniques in writing research papers.	2 credits
<b>Eng 531</b>	Oral Comprehension and Expression I Oral practice will be given to students to enable them to understand conversations, talks and lectures made by native speakers of English, and to make intelligent responses with adequate confidence. Oral activities will include narrating and explaining what read and heard in an interesting way, interviewing for information, and giving reports.	2 (4) credits
<b>Eng 532</b>	Oral Comprehension and Expression II Continuation of Oral Comprehension and Expression I. More listening practice will be given to enable students to understand lectures, speeches and debates in English. Students will practice elementary techniques for discussions and speech making from prepared outlines.	2 (4) credits
<b>Eng 551</b>	Translation I Intensive translation practice with emphasis on translation of English materials of various types into appropriate Thai.	2 credits
<b>Ling 501</b>	An Outline of General Linguistics Background in language studies, linguistic theories relating to phonology, syntax and semantics.	2 credits
<b>Ling 511</b>	Studies in English Phonology A study of the phonological English, a comparison of Thai and English sound features phonology.	2 credits
<b>Ling 621</b>	Studies in English Syntax	2 credits

- A study of English syntax and grammatical theories with an emphasis on grammatical analysis of English, and including a comparison a comparison of Thai and English structures.
- Ling 631** Seminar in the Teaching of English as a Foreign Language 2 credits  
A survey of methods of teaching English as a foreign language in Thailand ; implications of recent trends in research on foreign language learning and teaching.
- Eng 541** English and American Prose and Poetry I 2 credits  
A study of selected works by major English and American writers for a deeper understanding of life and thought, a critical insight into questions of historical and social significance and an exposure to various literary styles.
- Eng 542** European Drama I  
An introduction to drama. The nature of a play. The technique of playwriting, plot, characterization, setting, language, theme. Drama as literature. Drama in performance. A brief historical overview of the development of drama. Major schools ; major writers. An introduction to classical drama : major Greek and Roman plays and playwrights. The study of at least one Classical text.
- Eng 641** English and American Prose and Poetry II 2 credits  
A continuation of Major English and American Prose and Poetry I.
- Eng 642** European Drama II  
A study of the historical and social background. Medieval religious drama. The Elizabethan Age ; the life and works of William Shakespeare, other major writers and works ; the detailed

## Literature

### Eng 644

Dramatic Activities in English

Classroom

1 (2) credits

Study and evaluate the possible uses of dramatic activities : role playing, movement, sensory awareness, improvisation, etc. in the teaching of language, reading composition and literature.

study of texts. The Neo - classic period, : writers and works. Restoration comedy : writers and works. Romanticism and the decline into melodrama.

**Eng 611** Reading II 1 (2) credit  
Continuation of Reading I. Practice will be given to improve reading speed.

**Eng 631** Oral Comprehension and Expression III 1 (2) credit  
Continuation of Oral Comprehension and Expression II. Further listening practice will be given to enable students to understand speeches and commentaries in English from films and radio. Students will practice giving impromptu talks.

**Eng 651** Translation II 1 (2) credits  
Continuation of Translation I.

**Eng 643** European and American Drama  
A study of the historical and social background. The origins of modern drama. Naturalism and the emergence of the new theatre. Principal movements, writers and works of the Twentieth Century including the detailed study of several texts. Contemporary drama : radio T.V. and cinema. The modern theatre : staging production, performance, acting. Drama as art : the social, economic and political context.

# Geography

## Objectives

1. To provide professional preparation that will makes the student knowledgeable and capable in analysing and solving geographical data and problems and synthesizing of data.
2. To promote the student's ability to teach geographical knowledge at various educational levels.
3. To promote the student's capacity of doing research and study work relating to geography for more effective learning and teaching.

## Structure of the Program

### Requirements

- |                                  |               |                 |
|----------------------------------|---------------|-----------------|
| 1. Foundations of Education Area |               | 12 credit hours |
| 1.1 Required Courses             | not less than | 9 credit hours  |
| 1.2 Elective Courses             | not less than | 3 credit hours  |
| 2. Major Area                    | not less than | 27 credit hours |
| 2.1 Required Courses             | not less than | 9 credit hours  |
| 2.2 Elective Courses             | not less than | 18 credit hours |
| 3. Free Elective Area            | not less than | 3 credit hours  |
| 4. Thesis                        |               | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

- 1 refers to techniques and methods
- 2 refers to physical geography
- 3 refers to population and economics
- 4 refers to regional geography

### Compulsory

- |          |                               |           |
|----------|-------------------------------|-----------|
| Geog 511 | Advanced Map and Cartography  | 3 credits |
| Geog 523 | Seminar in Physical Geography | 3 credits |
| Geog 535 | Seminar in Economic Geography | 3 credits |

### Elective

- |          |  |           |
|----------|--|-----------|
| Geog 512 | Field Work and Research in<br>Geography      | 3 credits |
| Geog 514 | Quantitative Method in<br>Economic Geography | 3 credits |

<b>Geog 521</b>	Advanced Meteorology and Climatology	3 credits
<b>Geog 612</b>	Remote Sensing	3 credits
<b>Geog 622</b>	Geomorphology	3 credits
<b>Geog 624</b>	Seminar in Conservation of Natural Resources.	3 credits
<b>Geog 631</b>	Seminar in Political Geography	3 credits
<b>Geog 632</b>	Advanced Geography of Settlement	3 credits
<b>Geog 633</b>	Seminar in Geography of Population	3 credits
<b>Geog 641</b>	Research in Local Geography	3 credits
<b>Geog 642</b>	Seminar in Regional Geography	3 credits

## **Course Description**

<b>Geog 511</b>	Advanced Map and Cartography	3 credits
	A study of techniques and methods in compiling maps ; gathering statistical data for maps making ; preparing maps for reproduction ; emphasis on practical works and using map making tools ; techniques and methods of making maps from aerial photographs.	
<b>Geog 523</b>	Seminar in Physical Geography	3 credits
	A deep analytical study of the processes and phenomena in physical geography concerning landforms, climates, soils, rocks and minerals utilizing data from researches, statistics and maps.	
<b>Geog 535</b>	Seminar in Economic Geography	3 credits
	A consideration of theoretical aspects of a spatial economic distributions and locational analysis ; emphasis on the current problems in economic geography of Thailand.	
<b>Geog 512</b>	Field Work and Research in Geography	3 credits
	A study of principles and methods of practical geography namely surveying, map making, techniques and methods in laboratory and on	

- surrounding areal surface ; geographical research to be included.
- Geog 514** Quantitative Method in Economic Geography 3 credits  
 An introduction to statistical techniques applicable to solve geographical problems ; statistic methods and mathematics to be applied.
- Geog 521** Advanced Meteorology and Climatology 3 credits  
 An advanced study of the principles of meteorology and climatology with an emphasis on tropical meteorology and climatology in various field of human activities ; special analysis of climatic conditions in Thailand ; selected topics in meteorology and climatology chosen to fit the individual needs of advanced students.
- Geog 612** Remote Sensing 3 credits  
 A study of techniques in reading and interpreting imageries from satellites and methods of collecting geographical data from remote sensing imageries.
- Geog 622** Geomorphology 3 credits  
 A study of processes involved in change of the earth's surface ; types of land - formation produced by the geomorphic processes ; emphasis on the utilization of quantitative method in the study of the geomorphic processes.
- Geog 624** Seminar in Conservation of Natural Resources 3 credits  
 An analysis of problems of utilizing various resources of Thailand ; conservation techniques and the problems of public policy in their effective management for our economic and social development.
- Geog 631** Seminar in Political Geography 3 credits  
 An investigation of theories and applications

of political problems ; selected topics on conditions determining power and policies of individual state conflicting national policies or international institutions are analysed.

- Geog 632**      Advanced Geography of Settlement      3 credits  
An advanced study of the nature of the settlements in both rural and urban areas ; an emphasis on problems of landuse ; distribution of settlements ; development and problems associated with settlements : data concerning settlements to be analysed.
- Geog 633**      Seminar in Geography of Population      3 credits  
An analysis of world population pattern as revealed by demographic data ; an emphasis on a comparison of population density, growth, composition and migration with natural resources and state of technological advancement.
- Geog 641**      Research in Local Geography      3 credits  
A graduate course in the theory and application of geographical field techniques to the analysis of areas culminating in individual reports on assigned problems in the field course area.
- Geog 642**      Seminar in Regional Geography      3 credits  
A regional study of selected areas ; concepts and theories of regionalism are analysed and synthesized with an emphasis on data and sources applicable to the problems of the region.



# History

## Objectives

1. To effectively train students to study and skillfully research in appropriate historical approach and techniques
2. To enable the students to apply the acquired knowledge in the improvement of learning and teaching of history at various educational levels.
3. To develop the desire to learn and encourage justifiable, critical judgement.

## Structure of the Program

### Requirements

1. Foundations of Education 12 credits hours
2. Major Area not less than 27 credit hours
  - 2.1 Require Courses 12 credit hours
  - 2.2 Elective Courses 15 credit hours  
(Asian History or Western History at least 12 credit hours)
3. Free Elective Area not less than 3 credit hours
4. Thesis 6 credit hours

### Meanings of the Middle Digits of the Code Numbers

- 0 refers to general history
- 1 refers to Thai history
- 2 refers to Southeast Asian history
- 3 refers to East Asian history
- 4 refers to West Asian, South Asian, and Australasia history
- 5 refers to European history
- 6 refers to American history

## Compulsory

<b>Hist 511</b>	Analytical Study in Early Thai History	4 credits
<b>Hist 512</b>	Seminar in Dhonluri and Early Ratanakosin Periods	2 credits
<b>Hist 611</b>	Seminar in Modern Thai History	3 credits
<b>Hist 501</b>	Historiography	3 credits

## **Elective**

### **Asian History**

<b>Hist 533</b>	Modern China	3 credits
<b>Hist 534</b>	Modern Japan	3 credits
<b>Hist 641</b>	Seminar in Asian History	3 credits
<b>Hist 541</b>	Indian Civilization	3 credits
<b>Hist 542</b>	History of the Middle East	3 credits
<b>Hist 531</b>	Seminar in East Asian Civilization	3 credits
<b>Hist 621</b>	Seminar in Early Southeast Asian History	3 credits
<b>Hist 642</b>	Western Impact in Asia	3 credits
<b>Hist 643</b>	Seminar in South Asia	3 credits
<b>Hist 622</b>	Seminar in Modern Southeast Asia	3 credits
<b>Hist 543</b>	Modern Australasia	3 credits

### **Western History**

<b>Hist 551</b>	Renaissance and Reformation	3 credits
<b>Hist 552</b>	Liberalism and Nationalism in in the West	3 credits
<b>Hist 651</b>	History of Political Theories	3 credits
<b>Hist 652</b>	Seminar in Modern European History	3 credits
<b>Hist 553</b>	Economic History of Europe	3 credits
<b>Hist 554</b>	Western Political Systems	3 credits
<b>Hist 562</b>	American Social and Cultural History	3 credits
<b>Hist 555</b>	The Making of Modern Russia	3 credits
<b>Hist 556</b>	The Making of Modern Britain	3 credits
<b>Hist 563</b>	Foreign Policy of the United States	3 credits

### **General History**

<b>Hist 601</b>	Seminar in History	3 credits
<b>Hist 602</b>	Directed Readings in History	3 credits

## Course Description

- Hist 511** Analytical Study in Early Thai History 4 credits  
A study of problems, ideas, hypotheses, and historical documents concerning the Thai people from the early until the end of Ayudhaya periods emphasizing on the use of documents, historical sources and others with the aim of creating a sound understanding of Thai culture.
- Hist 512** Seminar in Dhonburi and Early Ratanakosin Periods 2 credits  
A study of problems and new though dealing with early Thai history until the end of King Rama III ; an analytical study will be made from using both local and foreign documents (from microfilms) in order to develop a better understanding required for a higher research in Thai nistory.
- Hist 611** Seminar in Modern Thai History 3 credits  
A study of problems and ideas in Thai history from the reign of King Rama IV when modernization began. Emphasis is made on the use of both local and foreign documents (from microfilms) to analyze various problems as a foundation of an advanced res arch in Thai history.
- Hist 501** Historiography 3 credits  
A study of historical writing methods, important historical thoughts, philosophy of history, historical sources and documents used in writing history ; a comparative study of the historical writing methods of the West, the East and the Thai historians.

- Hist 533** Modern China 3 credits  
An analytical study of the role, the importance and the changes in politics, government, society, economics and foreign policy of China from the time of the Opium War up to the present day.
- Hist 534** Modern Japan 3 credits  
An analytical study of the role, the importance and the changes in politics, government, society, economics and foreign policy of Japan from the period of the opening of the country (A.D. 1853) until the present day.
- Hist 641** Seminar in Asian History 3 credits  
A study of selected problems and thoughts in Asian history ; an analytical study of the attitudes and the impacts on the present and the future of Asia.
- Hist 541** Indian Civilization 3 credits  
An analytical study of the role and the importance of the civilizations of the Indus and the Ganges Valleys ; the early civilization of middle India ; Indian civilization under British rulers up to the present day with an emphasis on the effect of these civilizations on Asia and the world.
- Hist 542** History of the Middle East 3 credits  
An analytical study of the role and the importance of the Middle East from the Seventh Century until the present with an emphasis on political, social, cultural, philosophical and economic developments and their effect as the centre of interest of the world.
- Hist 531** Seminar in East Asian Civilizations 3 credits  
An analytical study of selected problems and ideas dealing with Chinese, Japanese and Korean civilizations from Prehistory until the

- Seventeenth Century with an emphasis on politics, government, law, society, art, literature, religion, philosophy, science and inventions and their effect on the world.
- Hist 621** Seminar in Early Southeast Asian History 3 credits  
 An analytical study of selected problems and topics of the Southeast Asian history with an emphasis on changes in politics, government, economics, society, culture, foreign affairs in Southeast Asian region from the early times to the Fifteenth century.
- Hist 642** Western Impact in Asia 3 credits  
 An analytical study of Asian countries since the coming of the Europeans until World War II with emphasis on politics, society, economics, culture, religions and philosophy and their impact in various countries of this region.
- Hist 643** Seminar in South Asia 3 credits  
 An analytical study of selected problems and ideas dealing with South Asia i.e. India, Sri Lanka, Pakistan and Bangladesh since the coming and the colonizing of the Europeans until the struggle for independence after World War II ; the rivalries among India and Pakistan and the establishment of Sri Lanka.
- Hist 622** Seminar in Modern Southeast Asia 3 credits  
 A critical study of the role, the importance and changes of political, government, society, economics and foreign policies of major countries in Southeast Asia from the Nineteenth Century until the present day.
- Hist 543** Modern Australasia 3 credits  
 An analytical study of the region in the South Pacific with an emphasis on Australia, New Zealand and New Guinea ; the coming of the

West ; the changes in the economic, political and social spheres and the role of this region in the world today.

**Hist 511** Renaissance and Reformation 3 credits  
An analytical study of the trend of thoughts and the importance of the periods of the Renaissance and the Reformation down to the Thirty Years' war. A stress is made on new thoughts in art, literature, politics, economics and science as the foundation of modern civilization ; new ideas in religions leading to the Reformation ; its impacts on economics, society and politics of Western Europe ; certain well-known works and primary source documents will be used.

**Hist 552** Liberalism and Nationalism in the West 3 credits  
A study of the origin and development of liberal and national movements in the Western, world, emphasizing on the changes and results of both movements on European history in the Nineteenth Century. Certain primary documents will be studied.

**Hist 651** History of Political Theories 3 credits  
A study of European political theories of noted philosophers from the Greek Period such as Plato, Aristotle down to those of modern time, for example Rousseau, Mill and Marx.

**Hist 652** Seminar in Modern European History 3 credits  
An analytical study of selected topics of the Eighteenth and Twentieth century European history with an emphasis on how economics, society and politics were related in various European countries. A study of the relationships between Europe and the outside-world.

(Certain topics will be selected by the lecturer each time.)

**Hist 553**

Economic History of Europe 3 credits  
The growth of trade in the seventeenth and eighteenth centuries ; the growth of agriculture ; the enclosure in England ; the causes of the Industrial Revolution in England and France in the eighteenth and nineteenth centuries ; the industrial development in Germany at the end of the nineteenth century ; the economic competition among great powers at the end of the nineteenth century ; the growth of technology and its effects on the European social and political system.

**Hist 554**

Western Political System 3 credits  
A comparative study of politics, education and government of England, France, Germany and the United States with a stress upon certain important aspects such as parliamentary system, presidential system, party system and the way politics are related to culture.

**Hist 562**

American Social and Cultural History 3 credits  
A study of the foundation of American society ; European influences on religion, economics, education and philosophy ; the trends of social reforms since the war between the States ; the influence of mass culture on the standard of living of the American people and the problems in modern society.

**Hist 555**

The Making of Modern Russia 3 credits  
The evolution of Russian politics, economics and society from the time of contact with the West in the reign of Peter the Great until the Revolutions in 1917 and formation of the USSR.

- Hist 556** The Making of Modern Britain 3 credits  
The evolution of British politics and government from the Tudor period until the present day, concentrating on parliamentary government, economic and social reforms leading to the welfare state of modern time.
- Hist 563** Foreign Policy of the United States 3 credits  
An analytical study of the relations of the United States with foreign countries since the War of Independence, emphasizing the role and responsibilities of the United States in the contemporary world.
- Hist 601** Historical Seminar 3 credits  
An analytical study of current events, contemporary research findings, or trends in politics, government, society, economics and foreign policy from the past until the present. The course will be arranged according to the students' requirements or according to the availability of visiting specialists to the Department.
- Hist 602** Directed Readings in History 3 credits  
An individual study and research. Students would be given an opportunity to choose their own topics for research under the supervision of staff members.



# Chemistry

## Objectives

1. To prepare capable teachers of chemistry up to the Bachelor's degree level.
2. To promote the ability to research in problems relating to chemistry teaching or chemistry.

## Structure of the Program

### Requirements

1. Foundations of Education Area 12 credit hours
2. Major Area Required courses not less than 27 credit hours
3. Free Elective Area not less than credit hours
4. Thesis 6 credit hours

### Meanings of the Middle Digits of the Code Numbers

- 1 refers to inorganic chemistry
- 2 refers to organic chemistry
- 3 refers to physical chemistry
- 4 refers to biochemistry
- 5 refers to analysis or synthesis
- 6 refers to seminar or project
- 7 refers to laboratory

Chem 511	Advanced Inorganic Chemistry I	3 credits
Chem 512	Advanced Inorganic Chemistry II	3 credits
Chem 521	Advanced Organic Chemistry I	3 credits
Chem 621	Advanced Organic Chemistry II	3 credits
Chem 641	Advanced Biochemistry	3 credits
Chem 531	Advanced Physical Chemistry	3 credits
Chem 551	Instrumental Method of Analysis	3 credits
Chem 519	Advanced Inorganic and Physical Chemistry Laboratory	3 credits
Chem 692	Advanced Organic and Biochemistry Laboratory	3 (6) credits
Chem 661	Chemistry Seminar	2 (3) credits

## Course Description

- Chem 511**      Advanced Inorganic Chemistry I      3 credits  
The interpretation of chemical reactions in terms of energetics and structure ; discussion of structure, stability of complexions and energy ; the reactions of acid - base in nonaqueous solutions ; nuclear chemistry is discussed in both qualitative and quantitative analysis.
- Chem 512**      Advanced Inorganic Chemistry II      3 credits  
This course includes symmetry in structure and some general rules of simple molecules and coordination compounds. The nature of chemical bonding is discussed in greater depth. Quantum theory relevant to electronic structure of diatomic and polyatomic molecules are discussed. The valence bond theory of metal - ligand bonding, X-ray methods in determination of structure are also included.
- Chem 521**      Advanced Organic Chemistry I      3 credits  
An exploration of the hows and whys of organic reactions ; the mechanisms of various organic reactions, e.g. substitution, addition, elimination and rearrangement, and the principles behind them.
- Chem 621**      Advanced Organic Chemistry II      3 credits  
Principles and techniques essential to the analyses and syntheses of natural products, e.g. acetogenin, phenylpropane, terpine, steroid and alkaloid including sources ; some important reactions and applications.
- Chem 641**      Advanced Biochemistry      3 credits  
A study of the biochemistry of the nutrients in more details, particularly the structure of proteins and nucleic acid including their metabolism e.g. the protein synthesis and the nitrogen balance. The course deals with the

specific metabolism of carbohydrates, lipids and minerals. The biochemistry of the hormones and blood circulation are included.

- Chem 531** Advanced Physical Chemistry 3 credits  
A study of three component systems thermodynamics and chemical equilibrium in great detail including chemical kinetics e.g. chemical rate and order of reaction. Particles and wave theory are discussed in detail.
- Chem 551** Instrumental Method of Analysis 3 credits  
The elementariness of basic electronics is studied Principles and applications of instrumental method of analysis including visible, infra-red, ultraviolet, flame photometry, polarography, nuclear magnetic resonance spectroscopy, gas chromatography, amperometry, potentiometric titration, and pH meters are introduced.
- Chem 591** Advanced Inorganic and Physical Chemistry Laboratory 3 (6) credits  
Finding solution to the problems in qualitative and quantitative analysis by using several methods and instruments as conductivity cell, potentiometer, spectrometer and tracer technique ; a study of labelling compound by paper eletrophoresis ; determining the rate of chemical reaction in terms of conductivity.
- Chem 692** Advanced Organic and Biochemistry Laboratory 3 (6) credits  
A study of the mechanistic pathways of organic reactions and the systematic examination of the variables involved. The techniques used include rate equilibrium measurements, stereo isometism, spectroscopy and analytical methods besides preparative chemistry. In biochemical the determination of some

**Chem 661** nutrients such as carbohydrates, proteins, lipids and some vitamins are included.  
Chemistry Seminar 3 (6) credits  
Reports and discussions of scientific discoveries derived from extensive reading of scientific journals and periodicals.

# Biology

## Objectives

To provide professional preparation that will make the student capable of teaching biology up to the Bachelor's degree level, and able to research in problems relating to biology teaching or biology

## Structure of the Program

### Requirements

1. Foundations of Education Area		12 credit hours
2. Major Area	not less than	27 credit hours
2.1 Required Courses		10 credit hours
2.2 Elective Courses		17 credit hours
3. Free Elective Area	not less than	3 credit hours
4. Thesis		6 credit hours

### Meaning of the Middle Digits of the Code Numbers

- 0 refers to cell - general biology
- 1 refers to botany
- 2 refers to zoology
- 3 refers to microbiology
- 4 refers to genetics and development
- 5 refers to physiology
- 6 refers to ecology
- 7 refers to applied biology
- 8 refers to biological techniques
- 9 refers to research

### Compulsory

Bio 591	Special Problems in Biology	2 credits
Bio 691	Seminar in Biology	2 credits
Bio 301	Cell Biology	3 credits
Bio 342	Developmental Biology	3 (4) credits

### Elective

Select courses with number 400 and up only.

Bio 361	Ecology	3 (4) credits
Bio 352	Cell Physiology	3 credits
Bio 371	Horticulture	3 (4) credits

<b>Bio 372</b>	Animal Husbandry	3 (4) credits
<b>Bio 341</b>	Genetics	3 (4) credits
<b>Bio 411</b>	Lower Plants	3 (4) credits
<b>Bio 412</b>	Vascular Plants	3 (4) credits
<b>Bio 413</b>	Plant Anatomy	3 (4) credits
<b>Bio 414</b>	Plant Taxonomy	3 (4) credits
<b>Bio 421</b>	Invertebrate Zoology	4 (5) credits
<b>Bio 422</b>	Vertebrate Zoology	4 (5) credits
<b>Bio 423</b>	Comparative Anatomy of Vertebrates	4 (5) credits
<b>Bio 424</b>	Entomology	3 (4) credits
<b>Bio 425</b>	Acarology	2 (3) credits
<b>Bio 441</b>	Advanced Genetics	3 credits
<b>Bio 451</b>	Plant Physiology	4 (5) credits
<b>Bio 452</b>	Animal Physiology	4 (5) credits
<b>Bio 461</b>	Plant Ecology	3 (4) credits
<b>Bio 501</b>	Limnology	3 (4) credits
<b>Bio 502</b>	Marine Biology	3 (4) credits
<b>Bio 503</b>	Radiobiology	3 credits
<b>Bio 511</b>	Plant Hormones	3 (4) credits
<b>Bio 521</b>	Ichthyology	2 (3) credits
<b>Bio 522</b>	Ornithology	2 (3) credits
<b>Bio 523</b>	Malacology	2 (3) credits
<b>Bio 531</b>	General Phycology	3 (4) credits
<b>Bio 532</b>	General Mycology	3 (4) credits
<b>Bio 533</b>	Protozoology	2 (3) credits
<b>Bio 534</b>	General Virology	2 (3) credits
<b>Bio 535</b>	Pathogenic Bacteriology	3 (4) credits
<b>Bio 536</b>	Immunology and Serology	3 (4) credits
<b>Bio 571</b>	Parasitology	3 (4) credits
<b>Bio 572</b>	Weed Biology	2 (3) credits
<b>Bio 573</b>	Tropical Postbiology	2 (3) credits
<b>Bio 574</b>	Plant Pathology	3 (4) credits
<b>Bio 575</b>	Economic Botany	3 (4) credits
<b>Bio 581</b>	Microtechniques	3 (6) credits

## Course Description

<b>Bio 591</b>	Special Problems in Biology An individual research project.	2 credits
<b>Bio 691</b>	Seminar in Biology Seminar in various topics of biology.	2 credits
<b>Bio 301</b>	Cell Biology (Prereq. : chem 221 or chem 382 or equivalent.)	3 credits
<b>Bio 342</b>	Developmental Biology Anatomy and physiology of developing tissues and organs.	3 (4) credits
<b>Bio 361</b>	Ecology (Prerequisites : Bio. 211, Bio. 221) The study of structures, functions, and the relationships of organisms in natural environment ; ecosystem ; forests, grassland, ponds, lakes, marine and ocean : components of ecosystem in relation to plants, animals, and man ; community, population ; energy flow and energy efficiency ; the use of natural resources ; air, water pollutions and the misused of natural environments The course will emphasize theory , practice, and application in both the laboratory and field approaches in the hope that the students will be able to improve, prevent, and manipulate the natural environment for the betterment of their living.	3 (4) credits
<b>Bio 352</b>	Cell Physiology (Prereq. : chem 221 or Chem 382 or equivalent.)	3 credits
	A study of functional aspects of the cell ; cell environment, transportation across membrane, thermodynamics, macromolecules and their	

- metabolism, regulation of metabolism, photosynthesis, respiration, cell secretion, irritability, and contractility.
- Bio 371** Horticulture 3 (4) credits  
A study of the principles and practices employed in home and commercial production of fruits, vegetables, flowers and ornamental plants.
- Bio 372** Animal Husbandry 3 (4) credits  
Basic principles in raising of animals, topics on feeding, selection, breeding, sheltering, care, and protection.
- Bio 341** Genetics 3 (4) credits  
Basic principles of classical and molecular genetics; physical and chemical basis of heredity, fundamental concepts in population genetics and evolution
- Bio 411** Lower Plants 3 (4) credits  
A study of morphology, taxonomy, ecology, phylogeny development, behavior, life history, and economic importance of the major plant groups excluding ferns gymnosperms and angiosperms, considerable attention on representative forms in Thailand.
- Bio 412** Vascular Plants 3 (4) credits  
A survey of the ferns, gymnosperms and flowering plants with an emphasis on their morphology, classification, ecology, evolution economic importances, identification, and relationship of families common in Thailand.
- Bio 413** Plant Anatomy 3 (4) credits  
A study of gross structure, organization and development of the plant body with emphasis on flowering plants.
- Bio 414** Plant Taxonomy 3 (4) credits  
A study of classification of plants ; principles of plant classification, history of plant classifi-



cation, literatures in plant taxonomy, systems of plant classification, concept of units of plant classification, problems in plant classification, variation and evolution in plants, plant geography, and current ideas of plant classification.

- Bio 421** Invertebrate Zoology 4 (5) credits  
A survey of the morphology, physiology, ecology and taxonomy of the invertebrates from Protozoa to lower Chordates; phylogenetic relationships, ecology and behavior and emphasized. Practical work includes dissection of the selected types, demonstration and field study.
- Bio 422** Vertebrate Zoology (Registration is not allowed for those who have taken Bio. 423) 4 (5) credits  
Forms, structures and functions of lower chordates and vertebrates including natural history of local species.
- Bio 423** Comparative Anatomy of the Vertebrates (Registration is not allowed for those who have taken Bio. 422) 4 (5) credits  
A comparative study of vertebrate body plan, tissues, organs and organ systems along the evolutionary line of phylogeny.
- Bio 424** Entomology 3 (4) credits  
A study of insects emphasizing primarily on morphology, physiology, classification, distribution and economic importance; some aspects of collecting and preserving insects; application of insect control and rearing of insects.
- Bio 425** Acarology 2 (3) credits  
Study of mites and ticks in morphology physiology, distribution, collection and preserve

- classification, economic importance, mite and tick control.
- Bio 441**      Advanced Genetics      3 credits  
 (Prereq. : Bio. 341)  
 A study of genetic principles beyond the level of Bio. 341.
- Bio 451**      Plant Physiology      4 (5) credits  
 (Prereq. : Bio. 351)  
 A study of living processes in higher plants with an emphasis on chemical constituents, water relations, mineral nutrition, photosynthesis, respiration, metabolism of organic compounds; growth and development as related to internal and environmental factors.
- Bio 452**      Animal Physiology      4 (5) credits  
 (Prereq. : Bio. 351)  
 The relationship between structure and function of animals, especially the vertebrates, is the primary consideration of this course. Special emphasis will be placed on nutrition, digestion excretion, endocrine system, blood circulation, respiration, muscle and nerve physiology, sensory organs, perception, and reproductive physiology,
- Bio 461**      Plant Ecology      3 (4) credits  
 (Prereq. : Bio. 361)  
 A general study of the relationship between plants and their environment.
- Bio 501**      Limnology (Prereq. : Bio. 361)      3 (4) credits  
 A study of physical, chemical, and biological environments of the in-land fresh water ponds and canals ; biological studies of aquatic plants and animals; relationship between the inhabitants and physico-chemical aspects of the environments.

- Bio 502** Marine Biology (Prereq. : Bio. 421) 3 (4) credits  
Biology of marine plants and animals including their environments and uses.
- Bio 503** Radiobiology (Prereq. : Bio. 351) 3 credits  
A study of reactions of various rays and their effects on living organisms including their effects on heredity and mutation.
- Bio 511** Plant Hormones 3 (4) credits  
A study of plant hormones in term of chemical characteristics of auxins, gibberellins, cytokinins, inhibitors, retardants and agricultural application such as germination of seed, rooting, growth, and control of size of plant, flowering fruitset and fruit growth, fruit ripening, flower and fruit thinning, dormancy, abscission, storage, preharvest and postharvest treatment, herbicides.
- Bio 521** Ichthyology (Prereq. ± Bio. 422 or Bio. 423) 2 (3) credits  
A study of Southeast Asian fishes including their life history, ecology, taxonomy, and economic importance.
- Bio 522** Ornithology (Prereq. : Bio. 422 or Bio. 423) 2 (3) credits  
A study of birds in the area of structure, physiology locomotion, reproduction evolution, adaptations for securing food and avoiding enemies, and relation to mankind. Laboratory work is principally a study of classification, field trips enable students to distinguish the common local birds by sight and by song.
- Bio 523** Malacology (Prereq. : Bio. 421) 2 (3) credits  
A study of terrestrial, fresh-water and marine mollusks ; their anatomy, development,

- taxonomy, locomotion, reproduction, physiology, and economic importance.
- Bio 531** Phycology (Prereq. : Bio 411) 3 (4) credits  
 A systematic study of freshwater and marine algae of Thailand and neighbouring countries. Emphasis is primarily on structure, behavior, life history, ecology, classification, phylogeny, economic importance, physiology, and genetics. The course encourages group or individual research on algae.
- Bio. 532** General Mycology (Prereq. : Bio. 411) 3 (4) credits  
 A study of the major groups of fungi. Aspects of their life history, development morphology, physiology, and taxonomy ; consideration of evolutionary trends, economic importance, and relationship between fungi and other organisms.
- Bio 533** Protozoology (Prereq. : Bio. 421) 2 (3) credits  
 A study of morphology, taxonomy, physiology, and life history of representative free living and parasitic protozoans.
- Bio 534** Virology (Prereq. : Bio. 231) 2 (3) credits  
 A study of the biology of animal, plant, insect and bacterial viruses.
- Bio 535** Pathogenic Bacteriology (Prereq. : Bio. 231) 3 (4) credits  
 The relationship between host and pathogenic organism, method of transmission, pathogenics and type of infection produced.
- Bio 536** Immunology and Serology (Prereq. : Bio. 231 ; Biochemistry ; Organic chemistry.) 3 (4) credits  
 A study of the immune response and its relationship to the diagnosis, prevention and treatment of diseases.

- Bio. 571** Parasitology 3 (4) credits  
A survey of animal parasites ; basic concepts of parasitology : commensalism, mutualism, and parasitism, a study of metabolism, evolution, reproduction, life history, and host-parasite relationship, prevention and techniques for finding, identifying, examining and preserving parasites.
- Bio 572** Weed Biology 2 (3) credits  
A study of biology of tropical weeds, including their environments, economic importances, and weed control.
- Bio 573** Tropical Pest Biology 2 (3) credits  
(Prereq. : Bio. 424 and 511)  
Biology of tropical pests with main emphasis on Thai important pests of agricultural crops, livestocks, domestic animals, including human, and new approaches of pest control.
- Bio 574** Plant Pathology 3 (4) credits  
(Prereq. : Bio. 231)  
A study of diseases of economic plants ; causes, spread, prevention and cure of the diseases.
- Bio 575** Economic Plants 3 (4) credits  
(Prereq. : Bio. 412)  
A study of economic plants with an emphasis on those of Thailand.
- Bio. 581** Microtechniques 3 (6) credits  
A study of methods and techniques employed in preparation of materials for biological study.

# Physics

## Objectives

1. To prepare capable teachers of physics up to the Bachelor's degree level.
2. To promote the ability to research in problems relating to physics teaching or physics

## Structure of the Program

### Requirements

- |                                  |               |                 |
|----------------------------------|---------------|-----------------|
| 1. Foundations of Education Area |               | 12 credit hours |
| 2. Major Area                    | not less than | 27 credit hours |
| 2.1 Required Courses             |               | 24 credit hours |
| 2.2 Elective Courses             |               | 3 credit hours  |
| 3. Free Elective Area            | not less than | 3 credit hours  |
| 4. Thesis                        |               | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

0 refers to mathematics

1 refers to mechanics

2 refers to thermodynamics and statistical Mechanics

4 refers to electromagnetism

5 refers to nuclear physics

7 refers to quantum mechanics

8 refers to laboratory

9 refers to seminar and research

### Compulsory

Phys 502	Mathematical Method of Theoretical Physics I	3 credits
Phys 502	Mathematical Method of Theoretical Physics II	3 credits
Phys 511	Classical Mechanics I	3 credits
Phys 512	Classical Mechanics II	3 credits
Phys 541	Classical Theory of Electromagnetism I	3 credits
Phys 542	Classical Theory of Electromagnetism II	3 credits

Phys 671	Quantum Mechanics I	3 credits
Phys 672	Quantum Mechanics II	3 credits

### **Elective**

Phys 621	Classical Statistical Mechanics I	3 credits
Phys 622	Classical Statistical Mechanics II	3 credits
Phys 651	Nuclear Physics	3 credits
Phys 673	Quantum Mechanics III	3 credits
Phys 643	Electronics	3 (6) credits
Phys 681	Advanced Laboratory	3 (6) credits
Phys 691	Physics Seminar	2 (4) credits

### **Course Description**

Phys 501	Mathematical Methods of Theoretical Physics I	3 (3) credits
	Vector analysis, linear ordinary differential equations, special functions, delta function, Sturm-Liouville theorem introduction to Green's function.	
Phys 502	Mathematical Methods of Theoretical Physics II	3 (3) credits
	Complex variable, matrix linear algebra, partial differential equation, group theory, tensor calculus.	
Phys 511	Classical Mechanics I	3 (3) credits
	Variational principles and Lagrange's equation; The two-body central force problem, the kinematics of rigid body motion, special theory of relativity.	
Phys 512	Classical Mechanics II	3 (3) credits
	The Hamiltonian equation of motion, canonical transformations, Hamilton-Jacobi equation, small oscillation.	
Phys 541	Classical Theory of Electromagnetism I	3 (3) credits
	Electrostatics, boundary-value problems in electrostatics, multipoles, electrostatics of	

- Phys 542** macroscopic media, dielectric, magnetostatics.  
Classical Theory of Electromagnetism II 3 (3) credits  
Time-varying fields, Maxwell's equations, conservation laws, plane electromagnetic waves, simple radiating systems, radiation by moving charges.
- Phys 621** Classical Statistical Mechanics I 3 (3) credits  
Thermodynamics and kinetic theory, applications of thermodynamics, the equilibrium state of dilute gas, classical statistical mechanics, canonical ensemble and grand canonical ensemble.
- Phys 622** Classical Statistical Mechanics II 3 (3) credits  
Quantum statistical mechanics, ideal Fermi gas, Ideal Bose Gas, cluster expansion, phase transitions, the Ising model.
- Phys 651** Nuclear Physics. 3 (3) credits  
Elements of nuclear structure and systematics, nuclear decay, nuclear forces, nuclear reactions, neutron.
- Phys 671** Quantum Mechanics I 3 (3) credits  
Physical basis of quantum mechanics, the Shrodinger wave equation, Eigen functions and eigen values, discrete eigen values, continuous eigen values.
- Phys 672** Quantum Mechanics II 3 (3) credits  
Matrix formulation of quantum mechanics, approximate methods for bound states, approximate methods in collision theory, identical particles and spin, semi-classical treatment of radiation.
- Phys 673** Quantum Mechanics III 3 (3) credits  
Description of quantized system, elements of relativistic quantum mechanics, introduction to quantum field theory.



<b>Phys 643</b>	Electronics Theories and experiments related to electronic circuits widely used in experiments and researches.	3 (6) credits
<b>Phys 681</b>	Advanced Laboratory Laboratory experiments in physics of investigative nature.	3 (6) credits
<b>Phys 691</b>	Physics Seminar Reports and discussions of researches in physics published in scientific journals.	2 (4) credits

# Mathematics

## Objectives

To produce teachers of high calibre who will be able organize, and research in problems relating to mathematics curriculum, as well as offering training program in both mathematics and the teaching of mathematics

## Structure of the Program

### Requirements

- |                                     |                 |
|-------------------------------------|-----------------|
| 1. Foundations of Education Area    | 12 credit hours |
| 2. Major Area not less than         | 27 credit hours |
| 2.1 Mathematics                     | 24 credit hours |
| 2.2 Mathematics Education           | 3 credit hours  |
| 3. Free Elective Area not less than | 3 credit hours  |
| 4. Thesis                           | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

- 0 refers to foundations
- 1 refers to analysis
- 2 refers to algebra
- 3 refers to geometry
- 4 refers to foundations of mathematics
- 5 refers to statistics
- 6 refers to topology
- 7 refers to computer science
- 8 refers to mathematics for teachers
- 9 refers to seminar

## Compulsory

### Mathematics

<b>Math 411</b>	Mathematical Analysis	3 credits
<b>Math 412</b>	Vector Analysis	3 credits
<b>Math 413</b>	Introduction to Real Analysis	3 credits
<b>Math 414</b>	Introduction to Complex Analysis	3 credits
<b>Math 415</b>	Partial Differential Equations	3 credits
<b>Math 416</b>	Introduction to Numerical Analysis	3 credits
<b>Math 422</b>	Introduction to Abstract Algebra II	3 credits

<b>Math 424</b>	Linear Algebra II	3 credits
<b>Math 432</b>	Non-Euclidean Geometry	3 credits
<b>Math 433</b>	Projective Geometry	3 credits
<b>Math 434</b>	Differential Geometry	3 credits
<b>Math 441</b>	Introduction to Mathematical Logic	3 Credits
<b>Math 442</b>	Set Theory	2 credits
<b>Math 443</b>	History of Mathematics	3 credits
<b>Math 451</b>	Probability Theory	3 credits
<b>Math 452</b>	Mathematical Statistics I	3 credits
<b>Math 453</b>	Mathematical Statistics II	3 credits
<b>Math 461</b>	Introduction to Topology	3 credits
<b>Math 471</b>	Game Theory	3 credits
<b>Math 511</b>	Real Analysis	3 credits
<b>Math 512</b>	Functional Analysis	3 credits
<b>Math 513</b>	Complex Analysis	3 credits
<b>Math 521</b>	Group Theory	3 credits
<b>Math 561</b>	Topology	3 credits
<b>Math 541</b>	Foundations of Mathematics	3 credits
<b>Math 691</b>	Individual Studies in Mathematics.	3 credits

### **Mathematics Education**

<b>Math Ed 521</b>	Mathematics Education	3 credits
<b>Free Elective</b>	for Mathematics major only	
<b>Math Ed 691</b>	Individual Studies in Mathematics Education	3 credits

## **Course Description**

<b>Math 411</b>	Mathematical Analysis (Prerequisite : Math. 313 or by approval)	3 credits
	A rigorous treatment of limit, continuity, differentiation and integration.	
<b>Math 412</b>	Vector Analysis (Prerequisite : Math. 313)	3 credits
	Elementary operations, applications to gometry, applications to mechanics, partial differentiation, integration.	

<b>Math 413</b>	Introduction to Real Analysis (Prerequisite : Math. 313)	3 credits
	Theories of sequences and series of real numbers and of functions. Topology on the real line.	
<b>Math 414</b>	Introduction to Complex Analysis (Prerequisite : Math. 313)	3 credits
	Analytic functions, elementary functions and mapping, integrals, Cauchy's theorem. Cauchy's integral formula, the Fundamental Theorem of Algebra, sequences and series, Taylor series, Laurent series, classification of singularities, calculus of residue.	
<b>Math 415</b>	Partial Differential Equations (Prerequisite : Math. 314)	3 credits
	Equations of first order, classification of second order equations, elliptic equations, hyperbolic equations, parabolic equations.	
<b>Math 416</b>	Introduction to Numerical Analysis (Prerequisite : Math. 313)	3 credits
	Errors and significant figures, interpolation with divided differences, Lagrangian method, finite-difference interpolation, numerical solutions of equations.	
<b>Math 422</b>	Introduction to Abstract Algebra II (Prerequisite : Math. 421)	3 credits
	Ideals, Euclidean domains, polynomial rings, field extensions and introduction to Galois Theory.	
<b>Math 424</b>	Linear Algebra II (Prerequisite : Math. 423)	3 credits
	Linear transformations, matrices of linear transformations, matrices of linear transformations, characteristic vectors, bilinear forms.	
<b>Math 423</b>	Non - Euclidean Geometry (Prerequisite : Math. 331)	3 credits

- The discovery of non-Euclidean geometry, hyperbolic plane geometry and trigonometry, elliptic plane geometry and trigonometry, the consistency of the non-Euclidean geometries.
- Math 433** Projective Geometry 3 credits  
Introductory concepts, central projection, duality, perspectivity, projectivities, harmonic relationship, conics, the Pascal and Brianchon theorem, poles and polars, quadric surfaces, involution.
- Math 434** Differential Geometry 3 credits  
(Prerequisite : Math. 212)  
Curves in 3-space, geometry in 3-space, calculus on a surface, geometry of surfaces in 3-space, intrinsic property of surfaces.
- Math 441** Introduction to Mathematical Logic 3 credits  
(Prerequisite : Math. 241)  
The propositional calculus, quantification theory, and related topics.
- Math 442** Set Theory (Prerequisite : Math. 241) 3 credits  
Axiomatic development of set theory, axiom of choice, well-ordering principle, transfinite induction, cardinal and ordinal numbers.
- Math 443** History of Mathematics 3 credits  
Elementary history of mathematics from the beginning to the discovery of calculus and some selected topics.
- Math 451** Probability Theory 3 credits.  
(Prerequisite : Math. 313)  
Probability space, probability laws, moment generating functions, law of large numbers, limit theorem, Markov chains.
- Math 452** Mathematical Statistics I 3 credits  
(Prerequisite : Math. 313)  
Distributions of random variables, conditional

- probability and stochastic independence, some special distributions, distributions of functions of random variables, limiting distributions.
- Math 453** Mathematical Statistics II  
(Prerequisite : Math. 452) 3 credits  
Interval estimation, point estimation and sufficient statistics, statistical hypotheses, statistical tests, nonparametric methods, further normal distribution theory.
- Math 461** Introduction to Topology  
(Prerequisite : Math. 313) 3 credits  
Metric spaces, topological spaces, connectedness, compactness.
- Math 471** Game Theory (Prerequisite :  
Math. 451 or by approval) 3 credits  
Principles used in decision making, decision criteria, type of hypotheses, Bayes strategies, applications in binomial and normal random sampling, game matrix, saddle points, mixed strategy.
- Math 511** Real Analysis (Prerequisite :  
Math. 411) 3 credits  
Measures on the real line, Lebesgue Measure, Lebesgue integral, measurable functions, the real linear space.
- Math 512** Functional Analysis  
(Prerequisite : Math. 511) 3 credits  
Linear spaces, linear operators, normed linear spaces, Banach spaces, inner product spaces, Hilbert spaces, metric linear spaces.
- Math 513** Complex Analysis  
(Prerequisite : Math. 414) 3 credits  
Harmonic functions, Poisson's integral, the Dirichlet problem, related boundary value problems, conformal mapping, infinite infinite product, analytic continuation.

<b>Math 521</b>	Group Theory (Prerequisite : Math. 421)	3 credits
	Groups, subgroups, quotient groups, groups with operators, the isomorphism theorems, Jordan-Holder theorem, direct product, Krull Schmidt theorem, Abelian groups.	
<b>Math 561</b>	Topology (Prerequisite : Math. 461)	3 credits
	General topological spaces, homeomorphism, subspaces, product connectedness, local connectedness, arcwise connected topological spaces, homotopic paths, simple connectedness, compact topological spaces, compact metric space, Bolzano - Weierstrass Theorem.	
<b>Math 541</b>	Foundations of Mathematics	3 credits
	This course deals with the axiomatic method and its analysis ; theory of sets and its background ; groups and their significance for the foundations ; the development of various viewpoints on the foundations of mathematics leading to new directions in pedagogical dimension of mathematics.	
<b>Math 691</b>	Individual Studies in Mathematics	3 credits
	Intensive study of particular topics from the field of mathematics. Topics chosen to suit the student's interest and with approval from faculty member.	
<b>Math Ed 521</b>	Mathematics Education	3 credits.
	Understanding of the nature of mathematics, value of mathematics in education, objectives in teaching mathematics the place of mathematics in general education, some psychological impacts on the teaching of mathematics, issues and research in mathematics education, evaluation of mathematics program.	
<b>Math Ed 691</b>	Individual Studies in Mathematics Education	3 credits
	Content depends on the mutual consideration of the student and the instructor.	

# Physical Education

## Objectives

1. To provide professional preparation that will make the student knowledgeable and capable of teaching various physical education courses.
2. To enable the students to organize and provide physical education services and sports for society.
3. To promote the ability to study and research in areas relating to physical education and sports.

## Structure of the Program

### Requirements

- |                                  |               |                 |
|----------------------------------|---------------|-----------------|
| 1. Foundations of Education Area |               | 12 credit hours |
| 2. Major Area                    | not less than | 27 credit hours |
| 2.1 Required Courses             |               | 23 credit hours |
| 2.2 Elective Course              |               | 4 credit hours  |
| 3. Free Elective Area            | not less than | 3 credit hours  |
| 4. Thesis                        |               | 6 credit hours  |

### Meanings of the Middle Digits of the Code Numbers

- 1 refers to principles of administration, curriculum, and general information  
2 refers to scientific foundations  
3 refers to philosophical, sociological, historical foundations  
4 refers to independent study and research

### Compulsory

P E 511	Curriculum Development in Physical Education	2 credits
P E 512	Administration and Supervision in Physical Education	3 credits
P E 513	Seminar in Physical Education	2 credits
P E 514	Advanced Tests and Measurements in Physical Education	3 credits
P E 632	Comparative Physical Education	3 credits
P E 630	Philosophy of Physical Education	3 credits



<b>P E 521</b>	Advanced Physiology of Exercise	3 credits
<b>P E 524</b>	Physical Therapy	2 credits
<b>P E 634</b>	Sports and Society	2 credits

**Elective** (4 credits at least)

<b>P E 522</b>	Applied Kinesiology	2 credits
<b>P E 650</b>	Individual Study	2 credits
<b>H E 520</b>	Scientific Foundations of Health Education	2 credits
<b>H E 511</b>	Curriculum Development and Evaluation in Health Education	2 credits
<b>H E 512</b>	Organization of Safety Education	2 credits
<b>H E 513</b>	Seminar in Health Education	2 credits
<b>Rec 531</b>	Recreation and Society	2 credits
<b>Rec 532</b>	Community Recreation	2 credits
<b>Rec 513</b>	Seminar in Recreation	2 credits
<b>P E 640</b>	Seminar of Research in Physical Education	2 credits

## Course Description

<b>P E 511</b>	Curriculum Development in Physical Education	2 credits
	An advanced course presenting total curriculum in physical education at all grade levels ; special emphasis on curriculum trends in elementary and secondary programs and also upon application of the principles, practices, and functional philosophies of curriculum development in physical education.	
<b>P E 512</b>	Administration and Supervision in Physical Education	3 credits
	There are two phases in the course : administration and supervision. Phase A : Administration of physical education in schools and colleges ; special attention to problems of organization, classification of students, scheduling, facilities and equipment,	

budget and finance, legal foundations, and public relations.

Phase B : Responsibilities of the supervisor of physical education in schools and colleges ; observation techniques, standard of judging instruction, supervisory conferences, cooperative supervision, foundations of curriculum construction and lesson planning ; common problems encountered by supervisors in physical education in elementary and secondary schools. and colleges.

**P E 513** Seminar in Physical Education 2 credits  
study problems of physical education both in domestic and international levels with intensive emphasis on organizing and conducting physical education classes; exploring and examining of current literature and research; organizing and promoting of competitions and trends of physical education to enable the students to apply the acquired knowledge in solving these problems.

**P E 514** Advanced Tests and Measurements in Physical Education 3 credits  
An analysis of various kinds of tests used in the field of physical education, such as skill tests, knowledge tests, attitude tests, motor capacity tests, and also classification of tests including test construction ; experience offered in the administration of tests and in the use of elementary statistics to interpret scores.

**P E 632** Comparative Physical Education 3 credits  
Historical and comparative approaches to international physical education through inquiry into origins and development of sports medicine including philosophical trends in order to understand physical education and

- sports of those nations.
- P E 630**      Philosophy of Physical Education      3 credits  
 A study of philosophies in the fields of education and physical education which form the foundations for progress and development of modern physical education ; trends and influences that lead to changes and justifications of the program to be discussed.
- P E 521**      Advanced Physiology of Exercise      3 credits  
 Detailed study and experiment of the factors which influence human performance during exercise ; discussion of pertinent research from the sports medicine literature ; effects of the various types of exercises upon body structure and function.
- P E 524**      Physical Therapy      2 credits  
 Study of theory and practice of physical therapy such as rehabilitation of joints by whirlpool or heat pad and conditioning of those parts.
- P E 634**      Sports and Society      2 credits  
 Study of relationship of sports and cultural dynamics, sociogenic factors underlying competitive physical activities and an understanding of the behavioral responses of sport participants to various socio-cultural motivations ; the role of sports within past and current societies ; the development of acceptable social attitudes such as co-operativeness, sportsmanship and leadership.
- P E 522**      Applied Kinesiology      2 credits  
 Detailed study of the application of anatomical, physic, and physiological principles to human motion and sport performances in order that the results can be applied for the effective coaching as well as teaching of sports and physical activities.

- P E N650** Individual Study 2 credits  
Individual study and/ or research in selected topics in the areas of physical education not covered in other undergraduate courses.
- H E 520** Scientific Foundations of Health Education 2 credits  
A course designed for a better understanding of pertinent scientific health facts and principles as these apply to the further improvement of personal, family, community, mental and consumer health.
- H E 511** Curriculum Development and Evaluation in Health Education 2 credits  
A study of principles, problems, procedures, and the influence of educational philosophy on curriculum construction and evaluation in health education, and the application of these in the development and evaluation of a course of study for a specific situation.
- H E 512** Organization of Safety Education 2 credits  
A detailed study of programs, practices and procedures pertaining to safe living in the home, school and community ; an analysis of accident hazards including driver and pedestrian safety.
- H E 513** Seminar in Health Education 2 credits  
Integration of facts, principles and theories into a practical philosophy in the areas of aims, curriculum, organization, administration, biological, physiological and psychological considerations in health education ; exploration of current literature and research to enhance understanding of the profession.
- REc 531** Recreation and Society 2 credits  
A philosophical consideration of recreation ; basic philosophical, historical and scientific concepts and developments in leisure and

recreation ; analysis of recreation values as related to other contemporary individual and community needs, functions and settings of organized recreation, special problem areas, and current issues.

**Rec 532**

Community Recreation 2 credits

A study of problems related to the provision of adequate recreation services for a community ; standard and quality of recreation service ; methods of measuring existing services and their coordination, and community organization procedures ; organization and administration of recreation in the communities, agencies, schools, municipals, and other organizations.

**Rec 513**

Seminar in Recreation 2 credits

Research in selected areas of recreation which includes current trends and problems ; discussion and research of nature of recreation conferences and its implications in economics, education, politics, and sociology.

**P E 640**

Research in Physical Education 2 credits

Seminar of research in physical education including historical, descriptive and experimental researches to conduct research in this field.

## **Structure of the Doctoral Programs**

The academic structure of the two programs is designed in similar form. The coursework comprises three clusters of subject matters namely, the research methodology, the social and behavioral sciences, and the specialized area. The two programs share some courses in the first and second clusters but branch out clearly in their specialized areas (i.e., development education and curriculum research and development). Within each cluster there are compulsory courses for each program, and selective courses to meet the interest of students. The academic nature of both programs is interdisciplinary and problem-oriented. Doctoral dissertation pertaining to the specialized areas is required for both programs.

### **Semester**

The structure of Doctor of Education curriculum consists of at least 45 semester credit hours of various courses and it must be completed within 5 years.

### **Development Education.**

Development education which is the field of study in this program is defined as "a study of ways and means for making education at the micro as well as macro levels instrumental to achieving the developmental goals of the country."

This program aims to provide the students with knowledge and skills in the specialized areas of development education, with the supporting background in research methodology and the social and behavioral sciences likely to be useful when attempting to conceptualize problems of development and to formulate educational strategies for their solution. Rather than choosing a single social science discipline as the minor area of study, the students take a broad field study of the selected aspects from four disciplines : economic, political science, sociology, and social psychology.

### **Course requirements**

1. Research Methodology (13 credits at least)

#### **Compulsory**

Stat 711	Advanced Statistical Inference	3 credits
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<b>Res 717</b>	Advanced Research Design and Instrumentation	2 credits
<b>Res 718</b>	Seminar on Research in Development Education	2 credits

**Elective** (6 credits at least)

<b>Stat 713</b>	Multivariate and Factor Analysis	3 credits
<b>Res 719</b>	Seminar on Research Techniques, Measurement and Statistics	3 credits
<b>Res 720</b>	Survey Research Techniques	2 credits
<b>Res 721</b>	Operation Research Techniques	2 credits
<b>Res 722</b>	System Analysis Techniques	2 credits
<b>C Sc 723</b>	Computer for Social Sciences Research	2 credits

**2. Behavioral and social Science** (16 credits a least)

**Compulsory**

<b>Soc 753</b>	Sociology for Development	3 credits
<b>Soc 754</b>	Social Psychology for Development	3 credits
<b>Econ 755</b>	Economics for Development	3 credits
<b>Pol 756</b>	Political Science for Development	3 credits

**Elective** (4 credits at least)

<b>Econ 757</b>	Advanced Development Economics	2 credits
<b>Soc 758</b>	Advanced Rural Sociology	2 credits
<b>Psy 759</b>	Group and Interpersonal Process	2 credits
<b>Soc 760</b>	Value Change	2 credits
<b>Soc 761</b>	Population Dynamics	2 credits
<b>Phil 762</b>	Religion, Philosophy, and National Development	2 credits
<b>Soc 743</b>	Problems in Human Ecology	2 credits
<b>Psy 763</b>	Education and Personality Development	2 credits
<b>Phil 764</b>	Buddhist Principles and Social Problems	2 credits
<b>Comm 751</b>	Human Communication	2 credits

### 3. Development Education (16 credits at least)

#### **Compulsory** (10 credits)

D Ed 779	Principles and Process of National Development	2 credits
D Ed 780	Educational Strategies for Development	2 credits
D Ed 781	Seminar in Development Education	2 credits
Econ 782	Economics of Education	2 credits
D Ed 783	Practicum in Development Program	2 credits

#### **Elective** (6 credits at least)

Curr 771	Curriculum Theories and Practice	3 credits
D Ed 784	Project Evaluation Techniques	2 credits
D Ed 785	Human Resources Development and Utilization	2 credits
Econ 786	Planning of Economy, Manpower and Education	3 credits
D Ed 787	Individual Study	1 credits

### 4. Dissertation Required but non credit

## **Course Description**

### 1. Research Methodology

Stat 711	Advanced Statistical Inference	3 units
	Mathematics structure of statistics ; use of inferential statistics in research ; sampling ; sampling variables ; sample space ; population ; distribution of statistics ; hypothesis testing ; error in statistical decisions ; statistics significance ; distributions.	
Res 717	Advanced Research Design and Instrumentation	2 units
	Theoretical and practical work in advanced research methods, including experiment, survey and operations.	



- Res 718** Seminar on Research in Development Education 2 units  
Discussion of both foreign and local research result to determine the strong and weak points and limitations.
- Stat 713** Multivariate and Factorial Analysis 3 units  
Methods, basic concepts, and assumptions in multivariate analysis and factor analysis; emphasis on practice in calculation; Lectures, discussions, plus individual and group presentations.
- Res 719** Seminar on Research Techniques, Measurement, and Statistics 3 units  
A study of economics, society, culture, and education according to the national economic and social development plans; study of theories in research, statistics, and measurement ; construction of research instruments ; design and planning of research ; methods of statistics analysis ; social and educational psychology research methods ; administration and service of research.
- Res 720** Survey Research Techniques 2 units  
Theoretical and practical study of survey research methods, such as construction of questionnaires, selection of samples, interviewing, editing of questionnaires, computer calculations, analysis of survey results and reporting of results.
- Res 721** Operation Research Techniques 2 units  
Theoretical and practical study of operations research methods, such as statement of problems,, construction of hypothesis, statement of relations, testing of relations, conclusions, and reporting of results.

- Res 722** System Analysis Techniques 2 units  
A study of functioning of systems, including the interrelations among input, process, and output, and the control of systems for maximum efficiency ; analysis of systems and limitation ; applications to other areas such as education.
- C Sc 723** Computer for Social Sciences  
Research 2 units  
Principles of computer operation, computer logic and language, and basic computer programming ; practice in computer programming.

## 2. Behavioral and Social Sciences

- Soc 753** Sociology for Development 3 units  
Advanced principles, theories and concepts of sociology, with special emphasis on those issues related to national development. (Prerequisite : basic knowledge in this field)
- Soc 754** Social Psychology for Development 3 units  
Advanced principles, theories and concepts of social psychology, with special emphasis on those issues related to national development (Prerequisite : basic knowledge in this field)
- Econ 755** Economics for Development 3 units  
Advanced principles and concepts of economics, with special emphasis on those issues related to national development. (Prerequisite : basic knowledge in this field)
- Pol 756** Political Science for Development 3 units  
Advanced principles and concepts of political science, with special emphasis on those issues related to national development. (Prerequisite : basis knowledge in this field)

- Econ 757**      **Advanced Development Economics**      2 units  
 A study of economic principles directly related to national development, such as the relation between urban and rural economics, the role of labor and skills in economic development, the role of capitalists and administrators, differential incomes in society, international trade, unemployment, and environmental pollution.
- Soc 758**      **Advanced Rural Sociology**      2 units  
 A study of the principles of sociology as applicable to rural life, especially in Thailand, such as family characteristics, social beliefs, system of human thinking and relations.
- Psy 759**      **Group and Interpersonal Processes**      2 units  
 An in depth study of the psychological processes occurring within and between groups, such as leadership, cooperative problem solving, competition, corruption, personal agreements. This subject is in the field of social psychology.
- Soc 760**      **Value Change**      2 units  
 A study of the principles, theories, and research results concerned with the nature, structure, and change of values, both at the individual and larger group levels ; study of process of past and present change in Thai values.
- Soc 761**      **Population Dynamics**      2 units  
 Concepts and principles of population dynamics, such as birth, death, migration, mathematical models and statistics ; problems resulting from rapid population growth and their solution.
- Phil 762**      **Religion, Philosophy and National Development**      2 units  
 Comparative study of important world religions and social philosophies and then influence on economic, social and political development of

- people ; lecture type instruction with some seminar.
- Soc 743** Problems in Human Ecology 2 units  
The relation of man to his environment ; the balance of nature and result of its destruction ; conservation of the environment ; efficient use of nature ; lectures, discussions, and research
- Psy 763** Education and Personality Development 2 units  
The educational, social, cultural, and other factors that have an influence on personal development, i.e. physical, mental, personality, perception and thinking
- Phil 764** Buddhist Principles and Social Problems 2 units  
Study of Buddish philosphy and practices for the analysis and diagnosis of social problems and their solution and the solution of life's problems.
- Comm 751** Human Communication 2 units  
Communication as it relates to society and economics ; characteristics of human communication process in different societies ; such as rural and urban ; oral and written communication ; different varieties of communications tools.

### 3. Development Education

- D Ed 779** Principles and Process in National Development 2 units  
Nature of human social processes in general and in Thailand, especially economic development, society, and government, theories of social change, development economics and political dynamics ; teaching and learning with both inductive and deductive.

- D Ed 780** Educational Strategies for Development 2 units  
Strategies for educational improvement or innovation to solve problems and effect national progress ; problems to be raised and objectives of national development declared.
- D Ed 781** Seminar in Development Education 2 units  
An overview of the development education profession ; to develop skills in debate, discussion, non-violent attitude change, etc. necessary in the profession.
- Econ 782** Economics of Education 2 units  
Principles and theories of economics ; economic development, progress, and capital investment in education and its results ; various problems concerning economic losses in the Thai education system ; lecture and individual and group discussion.
- D Ed 783** Practicum in Development Program 2 units  
Practicum in school and community development or other development programs. The objective is to have the student direct experiences in organizing development programs.
- Curr 771** Curriculum Theories and Practices 3 units  
Study and analysis of basic social, psychological, and historical factors as a basis for various levels of curriculum constructions appropriate for local community and students of different ages; analysis of curriculum structures of Thai and other curricular.
- D Ed 784** Project Evaluation Techniques 2 units  
Theoretical and practical studies of project evaluation techniques such as a study of project objectives, operations, results, including the analysis and presentation of result and recommendations.

D Ed 785	Human Resources Development and Utilization	2 units
	Study of concepts, principles, theories, and research results concerning the use and development of human resources especially in Thailand.	
Econ 786	Planning of Economy, Manpower and Education	2 units
	Study of various theories in planning for economic development both in developing and developed countries; manpower planning; educational planning, relation between plans and study of methods of planning educational development in Thailand in accordance with economic and social development plan.	
D Ed 787	Individualized Study	1 unit
	For student meeting or interest in study outside of the curriculum. The student and adviser work together in selecting subject matter.	

## **Curriculum Research and Development.**

The program in Curriculum Research and Development aims to provide students with knowledge and skills in conducting research and development work in the area of curriculum and instruction for all levels of education and training. Strong background in research methodology and the special and behavioral sciences will be indispensable for this area of work.

Course requirements consist of the following areas :

### **1. Research Methodology (15 credit hours at least)**

#### **Compulsory (15 credits)**

Stat 711	Advanced Statistical Inference	3 credits
Stat 712	Experimental Designs	3 credits
Stat 713	Multivariate and Factorial Analysis	3 credits
Ed M 714	Advanced Educational and Psychological Measurement	3 credits
Res 715	Seminar in Research and Curriculum	

Development Problem 3 credits

**Elective** (optional)

C Sc 716 Computer Statistical Analysis 3 credits

**2. Behavioral and Social Science** (15 credit hours at least)

**Compulsory** (6 credits)

Psy 741 Seminar on Education and Personality  
Development 3 credits

Psy 742 Seminar in Social, Philosophical,  
Psychological, and Historical Foundations  
of Education in Thailand 3 credits

**Elective** (9 credits hours at least)

Soc 721 Problems in Human Ecology 3 credits

Soc 744 Problems in Urban and Rural  
Living 3 credits

Ed 745 Practicum in School and Community  
Development 3 credits

Soc 746 Seminar in Social, Economics, Political  
and Education Problems in Thailand 3 credits

Psy 747 Methods and Theories of Behavior  
Modification 3 credits

Psy 748 Special Topics in Psychology 3 credits

Soc 749 Social Change and Social  
Planning 3 credits

Soc 750 Comparative Family Systems 3 credits

Comm 751 Human Communication 3 credits

Soc 752 Roles of Arts and Literature in  
Thai Civilization 3 credits

**3. Curriculum Development** (15 credit hours at least)

**Compulsory** (12 credits)

Curr 771 Curriculum Theories and Practice I 3 credits

Curr 772 Curriculum Theories and Practice II 3 credits

Curr 773 Internship Program in Curriculum  
Research 3 credits

Curr 774	Seminar in Curriculum Research and Evaluation	3 credits
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**Elective** (3 credits at least)

Curr 775	Work Conference on Curriculum Materials and Implementation	3 credits
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Ed 776	Crucial Issues in Current Thai Education	3 credits
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Curr 777	Production and Implementation of Curriculum Materials	3 credits
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Curr 778	Independent Study	3 credits
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4. **Dissertation** Required but non credit.

**Course Description**

1. **Methodology**

Stat 711	Advanced Statistical Inference	3 credits
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The purpose of this course is to help the student understand the structure of mathematical statistics and the use of statistical inference in research. The content includes random experiment, random variables, simple space, population, random sampling, distributions, functions of distribution, estimation and hypothesis testing, errors in statistical decisions, power of hypothesis testing, and some distributions used in hypothesis testing : bivariate, hypergeometric, normal, t and parametric tests.

Stat 712	Experimental Design	3 credits
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Prerequisite : Stat. 711. The purpose of this course is to help the student understand the reason of experiment and select appropriate experimental statistical analysis. The content includes designs of experiments and surveys, analysis of variance, techniques of statistical analysis, types of experiments, analysis of variance and covariance.



- Stat 713** Multivariate and Factorial Analysis 3 credits  
Prerequisite : Stat. 711 and C.Sc. 501 Digital Computer Programming. The purpose of this course is to help the student understand theories of multivariate analysis and multivariate distributions and appropriately use those principles in research. The content includes algebraic matrices used in the analysis of statistical problems relating to the analysis of multivariate, canonical, serial correlations and factorial and covariance analyses.
- Ed M 714** Advanced Educational and Psychological Measurement 3 credits  
This course aims to help the student understand theories and methods of instrument construction and types of tests used in educational research and related subjects. The content includes nature and levels of measurement, essential characteristics of educational and psychological measurement instruments, construction of instruments to measure achievements, aptitudes, personality and attitudes, and techniques of testing instrument analysis.
- Res 715** Seminar in Curriculum Research and Development Problems 3 credits  
This course aims to help the student study and criticize various research designs in education and psychology using educational research findings both in the country and abroad as materials for evaluating the strong points, the weak points, the limitations, and practicing giving suggestions to improve those research designs.
- C Sc 716** Computer Statistical Analysis 3 credits  
Prerequisite : Stat. 501 or equivalent.  
The content of this course includes structures

and operations of computers ; designing, analyzing, and constructing of programs to analyze statistical data ; finding, distributing, testing of statistical hypotheses ; ANOVA ; ANCOVA ; and multivariate analysis.

## **2. Behavioral and Social Sciences**

- Psy 741** Seminar on Education and Personality Development 3 credits  
Study educational, social, cultural factors and so on that influence the aspects of human development : physical, mental, personality, perceptual, and cognitive. The course aims to help the student to have broad mindedness in improving those factors to develop human resources which will lead to the development of the country in the end.
- Ed 742** Seminar in Social, Philosophical, Psychological, and Historical Foundations of Education in Thailand 3 credits  
Study the backgrounds of educational ideas of Thai people, analysis of the influences of social, philosophical, and psychological characteristics on Thai education of various periods in order to help the student know the unique characteristics and understand the present conditions of Thai society and visualize the future educational trends which are congruent with the social and cultural backgrounds of Thai society.
- Soc 743** Problems in Human Ecology 3 credits  
Study the relationship between human beings and the environment, the importance of natural balance, problems arising from the destruction of natural balance, prevention and

- correction of malenvironment, effective methods to use nature. The purpose of the course is to help the student realize that some changes in ecological structure in national development may be harmful. Instructional methods include lectures, case study, surveys, discussion, and ecological problem-solving.
- Soc 744** Problems in Urban and Rural Living 3 credits  
 Prerequisite : Thai Community, Geography of Settlement, Introduction to Economics, Sociology and Physical Geography or with consent of instructor. Discuss and analyze problems of living both in urban and rural areas ; consider appropriate methods to solve the problems using interdisciplinary approach ; emphasize problems arising in Thailand.
- Ed 745** Practicum in School and Community Development 3 credits  
 Participate in school and community development by surveying and analyzing natural and academic resources in the community in order to improve the learning and teaching in the school and community development emphasizing leadership character during the practicum.
- Soc 746** Seminar in Social, Economic, political and Educational Problems in Thailand 3 credits  
 Study economic, political, cultural, and educational changes and problems of the Thai society to collect reliable data ; study academic progresses and innovations ; analyze Thai educational system and consider appropriate ways to organize the educational system to relate to national development.
- Psy 747** Methods and Theories of Behavior Modification 3 credits

- Study methods and theories of behavior modification ; follow and research on antisocial behaviors and research on factors that modify those behaviors.
- Psy 748** Special Topics in Psychology 3 credits  
The content depends on the instructor who selects topics in psychology from journals both in the country and abroad.
- Soc 749** Social Change and Social Planning 3 credits  
Study and compare social changes in different societies especially in developed and developing countries ; problem-solving and economic and social planning ; changes that occur in Thai society as well as problems and planning to control the directions of Thai economic and social changes.
- Soc 750** Comparative Family System 3 credits  
Study and compare family systems in different societies and cultures, evolution of family systems from the past to the present, trends and changes of family systems.
- Comm 751** Human Communication 3 credits  
Study theories of social and economic communication and structural characteristics of human communication processes ; practice communicating through speaking, writing, and using various communicational equipment.
- Soc 752** Roles of Visual Art and Literature in Thai in Thai Civilization 3 credits  
Relationship between the conditions of Thai society and influences of other civilizations in the creation of Thai visual art and literature in different periods that has impact on the present society ; preservation and promotion of taste in Thai art.

### 3. Curriculum Development

- Curr 771** Curriculum Theories and Practice 3 credits  
**Curr 772** Advanced Curriculum Theories and Practice 3 credits  
Study and analyze fundamental social, psychological, philosophical, and historical components for curriculum construction for different levels of education to suit the community and the age of the learner ; analyze the structure of the curriculum ; practice setting objectives to select the content, learning-teaching process and evaluation ; study curriculum research findings both in the country and abroad.
- Curr 773** Internship Program in Curriculum Research 3 credits  
Practice doing research under close supervision of the instructor in the government research centers and with the approval of the committee.
- Curr 774** Seminar in Curriculum Research and Evaluation 3 credits  
Study and criticize different designs of research and curriculum evaluation ; discuss curriculum evaluation according to the objectives ; the student plans the formative and summative research and evaluation and reports the results to the class for criticism ; suggest and study system analysis to plan curriculum research and development.
- Curr 775** Work Conference of Curriculum Materials and Implementation 3 credits  
Analyze the present curriculum and study problems especially instructional and curriculum auxiliary materials problems ; consider criteria in producing materials and documents such as teacher's handbooks and so on ; practice

writing and producing documents, using the documents, and evaluating the results to improve them.

- Ed 776** Crucial Issues in Current Thai Education 3 credits  
Analyze documents and articles from various sources such as journals, newspapers, professional society documents speeches, discussions, lectures, and seminar reports ; study data from learned men and specialists ; and analyze personal experiences in order to know the characteristics of the issues and suggest ideas and ways of action.
- Curr 777** Production and Implementation of Curriculum Materials 3 credits  
Production and implementation of curriculum materials according to types and methods emphasizing systems analysis to make the curriculum materials the real integral parts of the curriculum both in the production and implementation techniques.
- Curr 778** Independent Study 3 credits  
The student selects topics for studies or researches individually under the supervision of the instructor. The research in supplement to skills and knowledge which is of special interest to the student and not available in other courses of instruction.

**PART III**

**FACULTY AND STAFF OF INSTRUCTION**

## **Faculty and Staff of Instruction**

Graduate School  
Faculty of Education  
Faculty of Humanities  
Faculty of Science  
Faculty of Social Sciences  
Faculty of Physical Education  
Educational and Psychological Test Bureau  
Institute of Research in Behavioral Sciences  
Central Library  
Phlasuksa Campus  
Bangkhen Campus  
Bangsaen Campus  
Mahasarakham Campus  
Patumwan Campus  
Pitsanuloke Campus  
Songkla Campus



## **Graduate School**

### **Prasarnmit Campus**

Mrs. Kanda Nathalang	B.A. (Hons.) Dip. in Ed., M.A. in Ed., Prof. Dip., Ed.D.
Mr. Chalio Buripakdi	B.Ed. (Hons.), Cert. in Research, M.Ed. (Hon.), A.M., Ph.D.
Mr. Charoon Komolboon	Dip. in Ed., M.S. (Ed.Psych.).
Miss Nonglak Wiratchai	B.Sc. (Hons.), B.Ed. (Hons.), M.Ed., Ph.D.
Miss Orawan Tantchareernrat	B.Ed., M.Ed.
Mr. Pisit Sarawichitr	B.Ed., M.A. in Ed., Ph.D., Dip. in the Science of Personal Achievement.
Miss Siriyupa Poonswan	B.Ed., M.Ed.
Mr. Somporn Buatong	B.A., MA., Ed. D.
Mr. Tinnakorn Nakornsri	B.Ed., M.Ed., Ed.S., Ph.D. (Administrative Leadership).

## Faculty of Education

### Prasarnmit Campus

Miss Aree Sunhachawee	B. A. (Hons.), Dip. in Ed., M. A., Ed. D.
Mr. Anan Srisopa	B. Ed., M. S., Ph. D.
Mrs. Bang-orn Bhoowabhiromkhuang	B. Ed., M. Ed.
Miss Bang-orn Setanon	B. Ed., Dip. in Ed., M. Ed. (Guidance)
Miss Benja Chanpaibool	B. Ed., Dip. in TEFL., M. Ed.
Mr. Booncid Pinyoanuntapong	B. Ed., M. Ed.
Miss Boonchom Chaikosi	B. A., M. A., Ed. D.
Mr. BoonTham Komporn	Dip. in E. E., Dip. in Vocational Training Teacher, B. Ed., M. P. A., M. A. (Community Development)
Mrs. Chari Suvatthee	B. A. (Hons.), B. Ed., M. S. in Ed.
Mr. Charin Prasongsom	B. Ed. (Elementary Ed.), M. Ed. (Ed. Measurement)
Mrs. Chiensri Vividhasiri	Dip. in Ed., B. Ed. (Physics), Cert. in Science Concept Learning, M. A. (Adult & Continuing Ed.)
Mr. Chinda Pathaichant	B. A., M. A. (Curriculum & Instruction)
Mrs. Chinnapa Sitaputra	B. Ed., M. Ed. (Elementary Ed.)
Mr. Chom Poomipark	B. Ed., Cert. A. V. Leadership, M. S. in Ed.
Mr. Choongchai Sangpun	Dip. in Ed., B. Com., B. Ed., M. Ed. (Ed. Adm.)
Mrs. Chusri Wongrutana	B. Ed. (Hons.), M. Ed. (Ed. Res.)
Mrs. Kanchana Srikalasin	B. Ed., M. Ed.
Miss Kamolrat Lasuwong	B. Sc., M. Ed.
Mr. Kasem Boonsong	B. Ed. (Physics), M. Ed. (A. V. Ed.)
Mrs. Kesinee Jotikasthira	B. A., M. Ed.
Mrs. Kittima Preededilok	B. Ed., M. Ed., Ed. D.
Mr. Khompet Chatsupakul	B. Sc., M. Ed.
Miss Ladtongbai Bhuapirom	B. A., Dip. in Ed., Dip. in Ed. (Teaching English as a Second Language), M. Ed. (Comparative Ed.), Ed. D. (Comparative Ed.)

Mr. Luan Saiyos	Cert. in Ed., Dip. in Ed., B.Ed. (Math.), M.Ed. (Measurement)
Mr. Ong-Aj Jiyajan	B.Ed., M.Ed.
Mr. Padoong Arrayavinyoo	B.Ed., M.A.
Mr. Pairoj Buawjai	M.Ed. (Audio-visual Ed.)
Mrs. Panpit Vanichadarn	B.A., M.A. in Ed.
Mr. Patom Nikamanon	B.Ed., M.Ed., Dip. in Adult Education
Mr. Pichai Siritusanakul	B.Sc., Dip. in Ed., Cer. in Voc. Ed., M.A. in Ed.
Mr. Pilas Kuamee	B.Ed., M.Ed.
Mr. Pinit Wonno	B.S.E., M.S.
Mrs. Pitsri Chaengprai	B.A., B.Ed. (Hons.), M.A.
Mrs. Ponchan Jearadisak	M.A. (Guidance & Counseling)
Mr. Pongpun Pongsopar	M.Ed. (Guidance & Counseling)
Mrs. Poranee Gururatana	B.A. (Hons.), M.S. in Ed. (Elementary Ed.)
Mrs. Prachitr Apinayanuruk	B.Ed., Dip. in Ed.
Mr. Prachoom Rodprasert	B.Ed. (Math.), M.Ed. (Ed. Admin.), Ed.D. (Ed. Admin.)
Mrs. Prapapan Kornkosiyakaj	B.A., B.Ed., M.Ed.
Mrs. Prasarn Tipyatara	B.Ed., Dip. in Ed., Dip. in Ed. (Guidance)
Mr. Prasong Emrat	Dip. in Ed., B.Ed.
Mr. Pruang Kumut	Dip. in Ed., B.Ed., Cert. in edia Leadership, M.S. in Ed., Ed.D.
Miss Ratana Tanboonteck	Dip. in Ed., B.A., M.Ed., Ed.D.
Mrs. Raweevan Thumchai	B.A., B.Ed., M.A., M.S., Ed.D.
Mrs. Rernglak Rojanabhan	M.Ed. (Audio-visual Ed.)
Mrs. Rungdiva Chakrkorn	B.Sc., M.A. in Ed.
Mr. Sakchai Niruntawee	B.Ed., M.A. (Philosophy)
Miss Seela Chayanियayodhin	A.A. B.S.E., M.A., M.S., Ed.D.
Mr. Somboon Parnnabhop	B.Ed., M.Ed.
Mr. Somjait Apimonluksa	B.Ed., Dip. in Ed. (Guidance), M.Ed. (Ed. Psychology & Guidance)
Mr. Somkuwan Apypunth	Dip. in Ed., B.Ed., M.S. in Ed.
Mrs. Somphorn Chama-oot	B.A., B.Ed. M.A.
Mr. Somsakdi Vichitr	B.Ed., Dip. in Ed., Graduate Dip. in Special Ed.

Mr. Somwang Gururatana	B. Ed., M. Ed. (Audio-Visual Ed.)
Mr. Song-sak Srikalasin	Dip. in Ed., B. Ed., M. A. in Ed., Ed. D. (Ed. Admin.)
Mrs. Sriya NiyomThum	B. Ed. (Hons.), M. Ed. (Developmental Psychology), M. A.
Miss Sumanin Rungruantham	B. Ed., M. A. in Ed.
Mr. Sunthorn Kohtbantau	B. Ed., M. Ed., Ph. D.
Khunying Tamsiri Punyasinh	B. A., Dip. in Ed., M. A. in Ed.
Mrs. Tipaporn Phaonimmongkol	B. S. E., M. S.
Miss Vadee Chati-Udis	B. A., B. Ed., M. A.
Mrs. Vajiraya Buasri	B. A., Dip. in Ed., M. A., Ph. D.
Miss Vallada Boonyahansa	B. Ed., M. Ed.
Mr. Vichai Wongyai	B. Ed., M. A. Ed. D.
Mrs. Vichit Varutbangkul	Dip. in Ed., B. Ed., M. Ed., Ed. D.
Mr. Vichitr Sinsiri	B. A., B. Ed., B. A. (Social Work), M. A. T. (History), Ed. D. (Higher Education Admin.)
Mr. Wanlop Piyamanotham	M. Sc.
Mrs. Wannee Somprayoon	B. Ed., M. Ed.
Mrs. Wanpen Phongparyoon	B. Ed., M. Ed. (Guidance)
Mrs. Wilailux Pongsopar	B. Sc. (Psychology), M. Ed. (Counseling & Guidance)

## **Faculty of Humanities**

### **Prasarnmit Campus**

Mrs. Pranee Thanachanan	B.Sc., B.A., Cert. in Phonetics of English.
Mr. Aree Soothipunt	M.F.A.
Mrs. Atthaya Bhadanupong	B.Ed. (Hons.), M.A. (Elem. Ed.)
Mr. Boonsom Karnsangworn	M.S. in Ed. (Lib. Sc.)
Miss Boonsri Pairatana	B.Ed., Graduate Diploma, M.Ed.
Mr. Chaleo Pansida	B.Ed., M.A. (Library Science)
Miss Churée Chivakul	M.Ed. (English Language & Literature)
Mr. Churiphrom Kamalasn	B.Arch., M.Ed. (Ed. Adm.)
Miss Duangduen Satraphat	M.Ed.
Miss Kanda Daraswasdi	B.A., B.Ed., M.Ed.
Mrs. Keson Charoenruk	B.Ed., M.A. (Library Science)
Mrs. Ladawan Nutsati	Dip. in Ed., B.A., B.Ed., Dip. TEFL (London), M.Ed. (Ed. Adm.)
Mrs. Maria Laosunthara	Ed.D.
Mrs. Moree Chuensamran	B.A., Dip. in Ed., M.A.
Miss Nittaya Boosing	M.Ed.
Mr. Niyom Riengchandr	B.A., Dip. in Ed., M.S. (Ed.)
Mrs. Nongnuan Pongpaibool	B.Ed., Graduate Diploma in Library Science, M.Ed. (Library Science)
Mrs. Nuanla-or Supapol	M.Ed.
Mr. Pawa Panmekha	M.Ed. (Library Science)
Miss Pranot Leksawas	M.Ed.
Mr. Prapart Brudhiprabha	Dip. in Ed., B.Ed., Dip. ESL., Cert TEFL., M.A., Ph.D.
Mrs. Pranee Vanitchareonthum	B.A. (Hons.), M.Ed. (Ed. Adm.)
Miss Prasong Rayanasuka	Dip. in Ed., B.Ed., M.Ed., M.A. (Speech Therapy)
Miss Pranee Khuankeow	B.Ed., M.Ed.
Mrs. Piyaratana Sobhoupis	B.A., B.Ed., M.A.T.
Mr. Rangram Boontarig	B.A. (Hons.), M.A. (Modern Languages)
Mrs. Sam-Ang Hiranburana	Phins. M.A., Dip. in English Studies, Ph.D.

Mrs. Sawanee Intrabhakdi	B.A. (Hons.), M.A.
Mrs. Somsong Charernkul	B.A., M.Lit., M.Ed.
Mrs. Susadee Hongsakul	B.A.
Miss Sunanta Soracha	B.Ed., M.Ed.
Mrs. Supha Panchareon	B.Ed., M.Ed.
Mrs. Surai Pongtongcharoen	B.A., B.Ed., M.A., Cert. in TESL, Cert. in ESOL Administration
Mrs. Suwakon Chongtrakul	B.A., M.A.
Miss Sawana Pornpattanakul	Dip. in Ed., BEd., M.Ed., (Psycho.), Ph.D.
Mrs. Somboon Singkamanan	M.Ed. (Library Science)
Mr. Somkiat Khunthavekul	B.A., M.Ed.
Mrs. Urai Buatong	Dip. in Ed., B.Ed., M.A.
Miss Wadee Chatuthit	B.A., B.Ed., M.A. (Linguistics)
Mrs. Wanee Chalee	B.A., B.Ed., M.S. in Ed.
Miss Wanida Likhitguntima	B.Ed., M.Ed. (Thai)
Miss Wipudh Sobhavong	B.A., B.Ed., B.A. (Social Work), M.A. (Linguistics)
Miss Wiroonrat Chanaingoon	B.A., M.A., Dip. in Ed.
Mr. Wit Thapthiang	B.Ed., M.A. in Library Science

## **Faculty of Science**

### **Prasarnmit Campus**

Mr.Prayong Pongtongcharoen	B.Sc.(Hons.), Dip. in Ed., M.S., Ph.D.
Mr.A-Nan Poopityastaporn	B.Sc.(Agriculture), M.Sc. (Genetics)
Mrs.Arporn Veerasarn	B.Sc., M.Sc., Dip. in Ed., M.S.
Miss Boonmee Gontong	B.Sc. (Chemistry), Dip. in Ed., M.A. (Sc.Ed.)
Mr.Charern Kruawalya	B.Sc., M.S.
Miss Chawee Chaimongkol	B.Sc., M.S.
Mr.Cheo Saleechan	B.Sc., Dip. in Ed., M.Sc.
Mrs.Duangkae Kampempool	B.Sc. (Chemistry), Dip. in Ed.
Mrs.Gaysorn Bhalang	B.Sc. (Hons.), M.Sc., M.S. (Chemistry)
Mr.Kamon Ekthaicharern	B.Ed. (Hons.), M.Sc.
Mrs.Krongkao Poopityastaporn	B.Sc. (Agr.), M.Sc. (Genetics)
Mrs. Lavalya Polkla	B.A., B.Ed., M.A. Ed.D.
Miss Monta Jangetleiad	M.Ed., M.S. (Textile Science)
Mr.Nida Sapianchai	B.Sc. (Hons.), M.A.T., Ph.D. (Chemistry)
Mrs.Nonglak Sakulyanonvitaya	M.Sc. (Zoology)
Mrs.Orapin Kaewlai	M.Ed. (Biology)
Miss Orrapin Cheerrapong	B.Sc. (Mathematics), M.A. (Statistics)
Mr.Pisitthi Worasingha	B.Ed., M.S. Ph.D.
Mr.Preeda Pecharamisri	Dip. in Ed., B.Ed., M.Ed.
Miss Punsin Ketudat	M.Sc. (Parasitology-Mahidol), M.S. (Pop.Studies - U.of Chicago)
Miss Savanee Chakrpitaksa	B.A. (Hons.), M.S., S.M., D.Sc.
Mrs.Songsri Vimolvanich	B.Sc., M.S., Ph.D.
Mr.Sa-Korn Trinandwan	Dip. in Ed., B.Ed., M.A. (Botany), MAT (Biology)
Mrs.Saisanom Pragobpol	M.Sc.
Mr.Somkiart Greethong	B.Sc., M.Sc.
Mr.Somkid Kaesornsomboon	B.Sc. (Chemistry), M.S. (Org. chem.)
Mrs.Somsong Weesakul	B.Sc. (Hons.), M.S.
Miss Somsuke Terepigitra	Ed.D. (Higher Education & Curriculum and Instruction)

Mr.Suthat Yoksan	B.Sc. (Hons.), A.R. C.S., M.Sc., D.I.C., M.S., Ph.D.
Mrs.Sunan Senakant	B.Sc.
Mrs.Sunan Senakant	B.Sc. (Chula), M.A.T. (Physics)
Mrs.Sumalee Leungsakul	B.Sc. (Biology), M.Sc., (Microbiology)
Mr.Surapon Vatanavigkit	B.Ed. (Hons.), M.A.T., M.A.
Mrs.Suwanna Klaikrasae	B.Ed. (Hons.), M.Ed.
Mrs.Suntaree Piriyaakit	B.A. (Chemistry), M.S.
Miss Suchati Ratanakul	B.A., Dip. in Ed., M.A., Prof. Dip., Ed.E.
Miss.Sureeya Khawangsobha	B.Sc. (Hons.), M.Sc. (Physics), Cert. in Nuclear Physics.
Mrs.Sumondha Brohmbun	B.A., M.S.
Miss Sermsin Siritwatana	B.Ed., M.Sc.
Mr.Srirot Pavanarit	B.Sc.Agr., Cert.in Biology, Cert in Curriculum Development
Mr.Tongchua Theraphat	B.Sc., M.Sc., Dip. in Ed., Cert. in Bio. Curriculum
Miss.uruppee Pancha	M.Ed.
Mrs.Vanida Trachoo	B.Sc., M.S. in Ed.
Miss Waraporn Suravadi	B.Sc. (Hons.), B.Ed., M.A.T. (Bio.), Dip. in Marine Biology (Norway)
Mrs.Wimon Chitwattanagorn	B.Ed., M.Ed., M.Sc. (Nuclear Physics)
Miss Weerawan Chulakasem	M.Sc. (Zoology-Chula.)



## **Faculty of Social Sciences**

### **Prasarnmit Campus**

Mr. Anan Chiamcharoen	Cert. in Police Admin., Cert in Public Admin., B.A., M.A., M.P.A., Ph.D.
Mr. Chalot Chongsubphant	M.A. (Government)
Mrs. Duangphun Hansa	B.S. M.A.
Mr. Jitta Moudsong	Dip. in Ed., B.Ed. (Thai)
Mr. Kavee worakawin	B.Ed., M.Ed.
Mrs. Kittima Sungkasem	Doctor of Arts (Economics) (D.A. Economics)
Khunwarungupa Sanitwong	Na Ayutya B.A. (Hons.)
Mr. Meechai Worasayan	B.Ed., Graduate Diploma in Geography, M.Ed., Cert. in ERTS
Mrs. Nandha Jotikabukkana	B.A. (Hons.) (History)
Mr. Narong Puangpis	B.Ed., M.Ed. (History)
Mrs. Nibha Naewboonnian	Dip. in Accountancy, Professional Diploma in Ed., B. Ed. (Business)
Mr. Nibondh Sasidhorn	B.A. (Public Administration), B.L., M.A. (International Relations), M.A. (Public Admin) Ph.D. (Political Science)
Miss Nuathip Lua-amrung	B.A., M.A.T.
Mrs. Panitda Tesniyom	M.A. (Economic Development)
Mrs. Prachumporn Khongton	B.A., Dip. in Ed., M.A.
Mr. Prasat Laksila	D. of Econ.
Mrs. Pratuang Maharagkaga	B.A. (Hons.) Dip. in Ed., M.S. in Ed.
Mr. Phitsanes Jessadachatr	B.A. in Economics (Hons.), M.A. in Economics
Mr. Samutara Siriburi	B.Ed., M.S. (Geography)
Miss Sakorn Chuaypvassith	B.A., B.Ed. (Hons.), M.S. in Ed.
Mr. Sukhom Siriburintra	B.Ed., Dip in Ed., M.A. in Sociohgy.
Mr. Tahwon Koedietpong	B.Ed., M.Ed., M.A.
Mr. Thanom Arnamwat	B.Ed., M.Ed. (History)
Miss Sawat Senanarong	B.A., Dip. in Ed., M.A. (Geography) M.A.T.
Mr. Wutdichai Moolsilpa	B.Ed., M.Ed. (Histoty)

## **Faculty of Physical Education**

### **Prasaunmit Campus**

Mr.Samruan Ratanacharn	Dip. in Ed., B.Ed., M.S. in Ed.
Mr.Boonpong Wanapirom	B.Sc. (Public Health), M.P.H. (Enviromental Sciences)
Mr.Kongsakdi Charernruksa	B.Ed.,
Mr.Pichai Keolamphu	Dip. in Public Health, B.Sc. (Health Education), M.P.H. (Health Education), Cert. Specializing in Public Health Cert.Achievement in Village Health and Sanitation
Mr.Somkid Boonruang	B.Ed., M.Ed. (Guidance), M.Ed. (Physical Education)

## **Educational and Psychological Test Bureau**

Mr. Somboon Chitapong	Ed.D. (Curriculum Research & Development)
Miss Arunsri Kumut	M.Ed.
Mrs. Aungkana Saiyosa	B.Ed. (Chemistry), M.Ed. (Measurement)
Mr. Boontham Inchan	B.Ed., M.A. (History)
Miss Boosagon Petwiiwut	M.Ed.
Miss Juntima Promachatikul	M.Ed.
Mr. Chirdsak Kowasin	B.Ed., M.Ed.
Mr. Chote Petchurn	B.Ed., M.Ed. (Measurement), Ed.D.
Mrs. Jiraporn Boonsong	M.Ed.
Mrs. Laddawan Wongphanich	M.Ed. (Ed. Research)
Mr. Paisal Wangphahich	M.Ed. (Measurement)
Miss Puangrat Thaweratana	M.Ed.
Mr. Samreung Boonruangrutana	Ph.D.
Mr. Somson Wongyounoi	M.Ed.
Miss Sunon Solkosoom	M.Ed. (Ed. Measurement)
Miss Thonghor Wipawin	M.Ed.
Mr. Chanwit Tiamboonprasert	B.Ed. (Math.), M.Ed. (Ed. Measurement)
Mr. Pitir Thongehant	B.Ed. M.Ed.

## **Institute of Research in Behavioral Sciences**

- Mrs.Chancha Suvannathat B.A. (Hons.), M.A. in Ed., Ed.D.  
Mrs.Ashara Sucaromana M.A. (Psychology) Hons., M.Ed.  
(Research)  
Mrs.Boonkob Visamitanandana Dip. in Ed., B.A., M.Ed. (Developmental Psychology)  
Mrs.Duangduan Bhanthumnavin B.A., M.A., Ph.D. (Soc.Psy.)  
Miss Kanchana Lindratanasirikul B.Ed., M.Ed.  
Miss Ngamta Yongsiri M.S. (Sociology)  
Mrs.Nopawan Jotiban B.A., Ph.D. (Sociology)  
Miss Pachongchit Intasuwan Ph.D. (Psychometrics : Measurement and Statistics)  
Miss Patra Sukontasarp M.Ed. (Developmental Psychology)  
Miss Penkhae Prachonpachanuk B.Ed., M.S. (Elem. Ed.)  
Mr.Ravipan Somnapan B.A., M.A., Ph.D.  
Mrs.Somnuk Comuri B.A., Dip. in Ed., M.Ed., A.I.E.  
Mrs.Wanpen Pisalponsa B.A., B.Ed., M.S. in Ed.  
Miss Wilaslak Chuawallee B.Ed., M.Ed.,

**Central Library**  
**Prasarnmit Campus**

Mr. Sunthorn Kaewlai B.Ed., M.Ed., Ph.D. (Library and  
Inf. Scienc)

Mr. Suphat Songsangchant M.Ed.

Mrs. Tasanee Intraprasitthi B.A., B.Ed.

## **Palasuksa Campus**

Mr.Nat Indrapana	D.P.E., B.S., M.S. Ph.D.
Mrs.Kanchana Rungtranont	M. Ed. (Ed. Research)
Mr.Tavesak Narraj	Dip. in P.E., B.S. in P.E., Ed.M. in P.E.
Mrs.Nathya Visudthisin	B.Sc. (Health Education), M.Ed. (Physical Education)
Mr.Punya Somboonsilp	Ed.D.in Health Education
Mr.Prabhantha Kingminghae	B.S., M.A.
Mr.Phan Chiaranai	B.Ed., M.Ed.
Mrs.Pitsawong Mahakhan	B.Ed., M.Ed. (Physical Education)
Mrs.Raweevan Panpanich	B.Ed., M.Ed.
Mr.Radom Na Bangxaung	B.Ed. (Hons.), M.Ed.
Mr.Sakchye Tapsuwan	M.Ed. (A-V), M.Ed. in P.E. Dip. in Rec. (Aust.)
Mr.Samret Maneenet	Dip. in Rec. (Aust), M.Ed. (in P.E.)
Mr.Sopon Chairatudomgul	M.Ed. (Higher & Teacher Education) major in Chemistry
Mr.Udom Pimpa	B.Ed., M.P.E.

## **Bangkhen Campus**

Mr.Preecha Dhumma      B.S., M.S., M.A., Prof. Dip., Ed.D.  
Mr.Tadasak Wajiraprichapon   B.Ed., M.Ed.  
Mr.Somsak Jiamtawong      B.Ed., M.Ed.  
Mr.Sudhep Jantrasomsak    B.S., M.A., M.Ed.  
Mrs.Orrapun Prasittirat      M.Ed, Ed.D.

## **Bangsaen Campus**

Mr. Twee Hormchong	B. S., M. S., Ph.D.
Miss Ampa Manop	B.Sc., M.Sc.
Mr. Anon Anandarangsee	Dip. in Ed., B.Ed., B. L., M.S. in Ed., Cert in Teacher Ed.
Mrs. Anong Limpanich	B.Ed., Dip. in Library Science., M.A. (Ed. Media), Ed.D.
Miss Arom Tanpraphat	B. Ed., M.A., Ed. D.
Mr. Banchong Chantrasa	B. Ed., M.A., Ed. S., Ph.D. (Inter- national and comparative Education)
Mr. Banyat Suksring Gam	B. Ed. (Hons.), M.Sc.
Mr. Boonpoom Senarak	B.Ed. (Physics), M.P.A. (Economics Development)
Mr. Chalermwong Vajanasoontorn	B. S., M. S., Ph.D.
Mr. Chari Manisri	B.A., M. Ed. (Ed. Admin.)
Miss Chira Chankrachang	B.Ed., M.A., Ed.D.
Mr. Choaw Maneewong	B. Ed., M. Ed.
Miss Gobgun Sukprapan	B.Ed. (English), M.Ed. (English Language and Literature), Dip. in English Language and Literature
Miss Jintana Sristaporn	B.Sc. (Hons.), M.Sc.
Mrs. Kanchana Maneesaeng	B.Ed. (Physics-Mathematics), M.Ed. (Educational Measurement)
Mr. Manu Satyawanit	B. Ed., M. Ed.
Mrs. Nantana Tanwattanakul	B. Ed., M. Ed.
Mr. Nipone Sookpreedee	M. Ed. (Audio-Visual Ed.)
Mr. Pajong Tanwattanakul	B. Ed., M. Ed.
Miss Pilaipan Pongpoo	B. Sc., M. Sc.
Mr. Pinit Charernchasri	B. Ed., M. Ed.
Mr. Pirom Poolsawasdi	B.S. (Phys.), M.S. (Math.), Ed. D. (Hi. Ed.)
Mr. Pragrom Prayoonrat	B.Sc., M.Sc.
Mr. Praman Hakeemee	B.Ed., M.S. in Ed., Cert. in A.V. Communication, Cert. in Ed. Media Program



Mr. Pratern Mahakhan	B.Ed. (Hons.), Dip. in Ed., M. Ed., Dip. in Teacher Ed., Ed. D.
Mrs. Punnee Pecharayod	B. Ed., M. Ed.
Mr. Sakda Prangpratanpon	B.A. (Hons.), M. Ed., Ph.D.
Mr. Saman Srithunya	B. Sc., M.A.T.
Mr. Sa-Ngob Maneesaeng	B. Ed., M. Ed.
Mr. Sittipundh Siriruttanachai	
Mr. Samn Vanchuplow	B. Sc., M.A.T., Ed.D.
Mrs. Somsuke Matchajeep	B. Ed., M. Sc.
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Mrs. Poonpong Ngamkasem	B.Ed., M.Ed.
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**PART IV**

**VISITING LECTURERS**



## Visiting Lecturers

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Mr. Booncheu	Suwanapruk	B.A., M.S. in P.E.,
Mr. Charoentas	Chintaseri	M.D., Dr. Med
Mrs. Charuawporn	Tharanin	Ph.d.
Mrs. Charuawporn	Tharanin	Ph.D.
Mrs. Charuwan	Sinthusobhon	B.A. (Hons.) Dip. in Library Science, Cert. in Ed.,
Colonel Chinawudh	Suntharasuma	B.Sc., Cert. in Ed. M.A. (Politic.), M.A. (Econ), Ph.D. (Econ.)
Mr. Chaianandha	Samudhawani	A.B., M.A. in Pol. Sc., Ph.d.
Lieutenant Colonel	Ophas Nimmanop	B.A., Martographic Eng. Dip (ITC)
Miss Chandana	Brakmasreni	Dip. in Ed., B.A., M.Ed.
Mrs. Chongkolnee	Malai	B.S.c., Cert. in Med. Lab. and Teaching Course.
Mr. Ekvidya	Na Thalang	B.A., B.Ed. (Hons.), A.M. in Ed., Ed.D.
Miss Foongfeung	Kreutrachoo	B.A., M.A., Ed.D.
Mr. Kasem	Sirisampan	M.A., Ph.D.
Miss Kingkaew	Atthagara	B.A., M.A., Ph.D.
Mr. Kowit	Pravalpruk	Ph.D. (Stat. and Res. designs)
Mrs. Kulab	Mallikamas	B.A., M.A.
Mrs. Ladawan	Phadungsap	Ph.D.
Mrs. Maliwal	Thamasaeng	E.Ed., M.A.
Mr. Mohamad Abdul	Kader	Ph.D.
Mr. Naphadon	Chaikam	Ph.D.
Mr. Naipinij	Khachaphakdi	B.Sc. (Hons.), Ph.D.
Mrs. Nawanit	Indtrama	Ph.D. (Library Science)
Mr. Pairat		Ph.D.
Mr. Panom	Pongpaiboon	B.Ed., M.A., Ph.D.
Mr. Poj	Sapianchai	B.Ed., M.S., Ed.D.
Mr. Prasert	Sophon	Ph.D.
Captain Prasert	Suntharothok	B.Sc., D.I.C., M.S.C. M.S.c.
Mr. Poonpis	Amathavakul	M.D., M.A.
Mrs. Rojana	Thanthrananda	B.Ed.

Mr. Sanya	Sanyawiwat	B.A., M.A. (Anthropology), Ph.D.
Mr. Sant	Phanijkul	B.Sc., Ph.D.
Miss Sawat	Senanarong	B.A., Dip. in Ed. M.A. (Geog.) M.A.T.
Mr. Sutteeraphan	Koralak	Ph.D. (Guidance & Counselling)
Mrs. Supharp	Suanpaan	B.A., M.S. (Bio-chemistry)
Mr. Suwit	Wiboolseit	B.Sc., M.Eng. (Elec.)
Mr. Suppachai	Nimchirawat	Ph.D.
Kunying Supha	Malakul Na Ayudhya	M.D.
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Mr. Somchai	Prasertciriphan	Ph.D.
Mr. Somchit	Suphantas	Ph.D.
Miss Swat	Senanarong	B.A., M.A., M.A.T.
Mr. Sathit	Wajarakitti	Ph.D.
Mr. Suphachai	Panijphak	Ph.D.
Mr. Sornchai	Pisalbutra	Ph.D. (Stat.)
Miss Souklin	Phisetsakolkij	B.A., M.A. (Ling.), M.A.
Mr. Thongyu	Koewsaiha	Ph.D.
Mr. Thinaphan	Nakhata	Ph.D.
Mr. Thawatchai	Santisuk	Ph.D.
Mr. Thamrongsak	Muenchak	B.Ed., M. Ed., Ph.D.
Mrs. Udornporn	Chularek	M.D., M.A.
Mrs. Vasana	Sornmanu	M.D., Dip. in Psy., M.Ed. M.Ed.
Mr. Vichitr	Srisaan	B.A., M.Ed., M.A., Ph.D.
Mr. Wichai	Tansiri	B.A. (Hist.Hons.) M.A. (Hist.) Ph.D.
Mr. Weera	Asathananda	M.Sc. (Pol. Sc.)
Mr. Yenchai	Laochavanij	Ph.D.

## Corrections

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