#### Republika ng Pilipinas (Republic of the Philippines) MINISTRI NG EDUKASYON, KULTURA AT ISPORTS (MINISTRY OF EDUCATION, CULTURE AND SPORTS) Maynila

June 3, 1983

ORDER No. 26 s. 1983

POLICIES AND STANDARDS FOR TEACHER EDUCATION

To: Bureau Directors Regional Directors Presidents, State Colleges and Universities Heads of Private Schools, Colleges and Universities Deans, Colleges of Education

- 1. The inclosed set of policies and standards which includes the new Bachelor of Elementary Education (B.E.Ed.) curriculum embodies the revised general principles and guidelines for the establishment and operation of teacher education programs.
- In order to make teacher education responsive to the demands of a changing society and the search for a national identity, each teacher education institution should have a built-in mechanism for a continuous self-assessment of its instructional, research and extension service capabilities and program-thrusts.
- Teacher education in titutions offering Bachelor of Science in Education (B.S.E.) program are enjoined to continue with the 1970 B.S.E. curriculum pending the approval of a new curriculum.
- Every teacher education institution should give these policies and standards the widest publicity possible among the academic community and its clientele.
- This Order supersedes all existing rules and standards related to teacher education.
- Compliance with these policies and standards by all concerned is requested.

(SGD.) ONOFRE D. CORPUZ Minister

Incl.: As stated
Reference: Department Order: No. 10, s. 1970
Allotment: 1-3-4--(D.O. 1-76)

To be indicated in the Perpetual Index under the following subjects: Course of Study, COLLEGIATE RULES & REGULATIONS Course of Study, COLLEGIATE CUPRICULUM

SCHOOLS

POLICY

UNIVERSITIES and COLLEGES

(Inclosure to MECS Order No. 26, s. 1983)

POLICIES AND STANDARDS FOR TEACHER EDUCATION

The following rules and standards shall govern the operation of teacher education programs in schools, colleges and universities in the Philippines:

#### Article I Authorization

SECUTION 1. Only schools, colleges and universities duly authorized by the Minister of Education, Culture and Sports shall operate teacher education programs.

SECTION 2. All curricular programs in teacher education must have proper authorization from the Ministry of Education, Culture and Sports prior to the offering of such program.

### Article II Mission Statement

SECTION 1. The main concern of teacher education is the preparation of teachers imbued with the ideals, aspirations and traditions of Philippine life and culture and sufficiently equipped with knowledge of an effective delivery system. Specifically, teacher education programs are expected to produce teachers who can assume the following major roles:

- an effective conveyor of organized knowledge which has developed from human experience through the ages, such as language, mathematics and natural science, history, geography, literature and the fine arts, civics and culture;
- an efficient promoter and facilitator of learning that will enable the learners to develop to the fullest their potentials for a continuing pursuit of self-education; and
- 3. a true humanist who possesses a clear understanding and appreciation of the genuine human ideas and values that elevate the human spirit, refine human nature, and contribute to the human being's unending quest for fulfillment.

SECTION 2. The teacher education program is expected to develop teachers who possess the following traits and competencies.

### 2.1 Personal/Social Traits

- 2.1.1 conscious of their significant role in the early realization of social and economic development goals for the entire Filipino nation;
- 2.1.2 show appreciation for and promote desirable Filipino values, cherished ideals and traditions that make the Filipino unique;
- 2.1.3 possess an objective and scientific outlook, and keep abreast of the development and progress in science and technology;
- 2.1.4 develop a feeling of involvement and concern in national and international issues that affect the security and well-being of the Filipino nation;
- 2.1.5 cherish and nurture a deep love of country as it serves as a well-spring of dedicated work and abiding faith in one's fellowmen;
- 2.1.6 value high moral integrity, and abide by ethical and spiritual principles not only in one's professional life but also in personal actuations; and
- 2.1.7 practice and believe in the principles of human rights as a foundation for sound citizenship participation.

### 2.2 | Professional Competencies

- 2.2.1 Translate national development goals into viable programs of instruction through a relevant curriculum, effective classroom strategies and workable institutional objective;
- 2.2.2 Know and understand the nature, needs and motivations of their pupils/students as well as the nature, needs and problems

of the community they come from; so as to device and use suitable materials, methods and techniques in teaching and in preparing the learning environment;

- 2.2.3 Demonstrate performance on the qualitative as well as quantitative aspects of teaching and be directly involved in assessment procedures;
- 2.2.4 Practice sound educational management and processes that breaks from established routines, if necessary;
- 2.2.5 Encourage independent and creative thinking through a learning environment that liberates thinking and fosters creative undertakings;
- 2.2.6 Understand the legal aspects of education and of the rights, privileges and corresponding responsibilities of teachers under Philippine laws.

## Article III Administration

SECTION 1. The primary responsibility for the preparation of teachers within a college or university shall be exercised by a clearly defined and organized administrative and instructional unit, such as college, institute, school, or department of education.

SECTION 2. A deen shall be employed and assigned full-time to provide leadership and direction to the education department/college of the school. He shall have the following qualifications:

- 2.1 helder of Ed.D. or Ph.D. with specialization in Education;
- 2.2 with at least three (3) years teaching experience in the tertiary level;
- 2.3 three (3) years teaching experience in either the elementary or secondary level for professional subjects; and
- 2.4 must have at least one year of administrative experience in education.

SECTION 3. A full-time deam of the College of Education is one whose services are available for the efficient administration of his college.

3.1 As a general rule, in cases where the dean teaches, his teaching load should not exceed twelve (12) units.

SECTION 4. The dean of the College of Education shall have the following functions and responsibilities:

- 4.1 to assist in the formulation of institutional policies;
- 4.2 to exercise educational leadership among his faculty by:
  - 4.2.1 initiating and instituting a faculty and staff development program;
  - 4.2.2 recommending the appointment, promotion or separation of faculty members and non-teaching personnel in his college; and
  - 4.2.3 preparing and recommending the teaching load of his faculty members, direct and assign them to advise students in their program of studies.
- 4.3 to coordinate and consult with the head of students personnel services.
- 4.4 to plan a program of curriculum development with the assistance of qualified faculty members.
- 4.5 to institute a definite program of supervision aimed at upgrading the quality of instruction and other administrative support services.
- to assist in the budget preparation and financial management of the college.
- 4.7 to initiate programs in research and extension service.

SECTION 5. As a general rule, there shall be a full-time assistant dean for an enrolment of more than 500 students, for which position he/she must have an appropriate master's degree with teaching experience.

## Article IV Faculty

SECTION 1. Members of the professional education faculty shall have academic preparation appropriate to teaching and supervising assignment. They:

- 1.1 must be holders of a master's degree to teach their major field and/or allied subjects and must have credentials on file and available when needed;
- 1.2 must show evidence of competence for the field of specialization they are handling;
- shall have at least three years of satisfactory teaching experience in either the elementary or secondary levels in authorized government or private schools; and
- 1.4 must be knowledgeable in current trends and issues in teaching in elementary and secondary levels and in teacher education.

SECTION 2. A Student Supervisor/Practicum Coordinator shall be assigned on a full-time basis to plan, supervise, and evaluate student teaching experience and provide advice and counselling.

SECTION 3. The following conditions of employment shall be observed:

- 3.1 Salary rates of faculty members should be commensurate with their rank, academic preparation, experience in instruction and research, and at least comparable with other faculty who teach other baccalaureate courses.
- 3.2 At least 60% of the teacher education courses shall be taught by permanent and full-time instructors except in highly technical or specialized courses with prior approval from the Ministry of Education, Culture and Sports.
- Faculty members may carry a regular teaching load of twenty-four (24) units. Any excess of load will require approval of the Ministry of Education, Culture and Sports.

SECTION 4. Education faculty shall be assigned academic ranks in accordance with their academic training and scholarly maturity. Their usually recognized ranks are instructor, assistant professor, associate professor, and professor.

### 4.1 Professor -

- Training Doctor's degree
- b. Teaching competence outstanding
  c. Experience Eight (8) or more years related
  to teaching of a highly specialized nature
- Efficiency evidence of successful work in position held, past and present
- productive scholarship
- Good moral character

### 4.2 | Associate Professor -

- a. Training Doctor's degree preferred, but at least with a Master's degree
- b. Teaching competence very satisfactory c. Experience five (5) to seven (7) years related to teaching or eminence in a profession of highly specialized nature
- Efficiency evidence of successful work in positionsheld, past and present
- Productive scholarship e.
- Good moral character

#### 4.3 Assistant Professor -

- Training Doctor's degree preferred, but at least with a Master's degree
- b. Teaching competence very satisfactory
  Experience two (2) to four (4) years
  related to educational work and/or in profession related to teaching
- Efficiency evidence of successful work in positionsheld, past and present
- e. Productive scholarship f. Good moral character

#### 4.4 Instructor -

- Training Master's degree
- Good moral character

As a general rule, a new member of the faculty begins as instructor and is subsequently promoted, if deserving. However, a faculty member may be employed and appointed as assistant professor, associate professor, or professor if his appointment/designation is warranted by his training and scholarship.

#### Article V Curriculum

SECTION 1. The teacher education curriculum shall provide for two general stresses: Bachelor of Elementary Education (B.E.Ed.) and Bachelor of Secondary Education (B.S.E.) for teaching in either the elementary or the secondary level. It shall include a body of knowledge, skills, attitude, values and experience that will provide prospective teachers with the necessary competencies essential for effective teaching in either of the two levels.

SECTION 2. The specified body of knowledge, skills, attitudes, values, and experiences shall include the following:

- A general education component which will make up at least 1/3 of each curriculum for prospective teachers to consist of the humanities, natural and behavioral sciences, mathematics, logic and ethics aimed at developing a broadly educated, creative, cultured, morally upright and productive person.
- 2.2 A professional studies component to include:
  - 2.2.1 philosophy and aims of education, curriculum development, organization and administration, teaching and learning processes;
  - 2.2.2 the systematic study of teaching and learning theory with appropriate laboratory
    and clinical experiences to provide students
    with first-hand knowledge in the interpretation and appreciation of theory to classroom
    practices and strategies; and
  - 2.2.3 a direct substantial participation in teaching over a period of time and under the supervision of qualified personnel from the teacher education institution and the cooperating school.

### 2.3 A content area of specialization component

that will equip the teacher with greater and in-depth hardedge of the content and shills in his field of specialization.

SECTION 3. A total of 144 academic units is required for graduation for the P.E.Ed. degree. The approved Bachelor of Elementary Education (E.F.Ed.) curriculum is in Appendix A.

SECTION 4. A minimum total of 156 academic units is required for graduation for the B.S.E. degree as per E.Pr.S. Memorandum No. 27. s. 1970. The 1970 Bachelor of Science in Education curriculum is in Appendix B.

#### Article VI Instructional Standards

SECTION 1. The teacher education institution shall maintain a high standard of instruction, utilizing a variety of appropriate instructional procedures which contribute to the effectiveness of teacher education students' preparation.

SECTION 2. A system of supervision should be instituted and implemented for the purpose of evaluating teacher competence.

SECTION 5. The different carricular programs in the teacher education institution may adopt any textbook which is of fairly recent edition, and which reflects current trends in teaching and learning, up-to-date in methods on presentation and in content, does not violate the laws of the Thilippines and preferably written by Filipino authors.

SECTION 4. The Team of the teacher education institution should see to it that instructors and students must have the necessary textbooks. Arrangements shall be made to enable the students to acquire them.

SECTION 5. Colleges may charge their textbooks only once in every three (3) years.

SECTION 6. The institution shall provide for a systematic and continuing plan of evaluation of student progress through a marking system that is consistent and congruent to the objectives set up by the institution. Institutional policies shall be made known to the teacher education students to serve as their guide in preparing for their courses. The grade or rating of a student in each course shall be fair and just and shall reflect his proficiency in the subject based on reasonable rules and standards of the school.

#### Article VII Library

SECTION 1. The library shall be adequate to support the instruction, research and services pertinent to each teaching field as specified in the Manual of Regulations for Private Schools. Administrative procedures and equipment shall conform to accepted modern practices, including cataloguing methods, arrangements of books and periodicals, and adequate hours of accessibility. The library shall be administered on a full-time basis by a professionally trained librarian. Library resources shall be adequate in quality following minimum library requirements as specified in the Manual of Regulations for Private Schools.

- 1.1 At least five percent (5%) of the professional and cultural, books in the library should be Filipiniana, Orientalia or Oceania.
- 1.2 Each particular teaching field must have appropriate and adequate library support.
- 1.3 The library resources should include in addition to books, a substantive number of appropriate professional publications, such as journals, bibliographies, annuals, monographs, serials, periodicals and magazines in varied quality.
- 1.4 The library should reflect the changing needs of teacher education students and provide for new books and new periodicals. At least 20 percent of the total collection of books should be of recent editions. Sufficient funds should be set aside specifically for continuously enriching library resources.

SECTION 2. A library collection should consist of the following:

2.1 A basic collection of 5,000 well-selected relevant books is deemed adequate to support the curricular needs of a college with an enrolment of not more than 500 students.

2.2 For an enrolment of more than 500 requirement is as follows:

Enrolment	Volume Per Student	No. of Volume
500 or less 501 - 1,000 1,001 - 3,000 3,001 - 5,000 5,001 - above	10 10 8 6 5 per stude	5,000 10,000 24,000 30,000

SECTION 3. The following are the minimum requirements for library quarters:

- 3.1 There should be adequate reading space for the student population.
- 3.2 The reading room should be able to accommodate at one secting a minimum of 15 to 20% of the student enrolment. The reading room should provide at least 2.79 sq.m. per meader, a space that includes allowence for furniture and equipment.

SECTION 4. The open-shelf system should be encouraged.

## Actiole VIII Research

SECTION 1. Teacher preparation courses, as they develop in teachers the necessary competencies for effective teaching, shall imbue in them an attitude of inquiry and willingness to test theory against the evidence of the most carefully scrutinized and representative body of facts; to engage in research in any field of study.

SECTION 2. The strength of a teacher education institution shall be based most securely on the quality and quantity of research work undertaken or currently being undertaken by teacher education faculty and students and on the kind of institutional administrative and financial support given to such

SECTION 3. Scholarly works and reports of research activities shall be published and disseminated within and outside of the institution to encourage exchange of ideas research findings, and development in teacher education.

SECTION 4. Faculty members actively engaged in relevant and significant research work in teacher education shall be afforded special privileges and benefits such as reduced teaching load and/or its equivalent.

SECTION 5. Students graduating from teacher education programs shall be required to conduct action research and to complete a research paper on their major fields.

## Article in Laboratory

SECTION 1. An aducational media center shall be maintained either as a separate unit or as part of the library. It shall serve as a laboratory for the production of materials and educational media for instruction to include maps charts, pictures, video-tapes and recordings, curriculum patterns, courses of study, and teaching units. A professionally trained personnel having experience in both areas of educational media shall

### Article X Admissions Requirements

SECTION 1. Every student has the right to enroll in any school, college or university upon meeting its specific requirements and reasonable regulations; provided that except in the case of academic deliquency and violation of disciplinary regulation the student is expected to complete his course without prejudice to his right to transfer.

SECTION 2. As a general rele, no applicant shall be enrolled in any approved course unless he presents the proper credentials before the end of the enrolment period. Students who believe that they have been unduly deprived of their transfer credentials by school officials are advised to bring their the Regional Office

SECTION 3. All teacher education institutions must have a system of selective admission and retention of students to insure that those who enter the teaching profession possess a reasonably high level of scholastic achievement and certain special aptitudes, interests, and personality traits. There shall be well-defined miteria for admission into the

### programs for teacher preparation:

- 3.1 Teacher education candidate shall have obtained a 50 percentile rank in the NCEE.
- 3.2 Possess satisfactory health, with no physical defects that may have deterrent effect for effective teaching.

SECTION 4. There shall be no discrimination in selection for admission of teacher education students to the institution on the basis of sex, religion, race, or socio-economic status.

SECTION 5. Admission policy shall take into account the faculty resources and facilities of the school.

SECTION 6. The institution shall apply specific criteria for retention of candidates.

SECTION 7. Students shall complete at least twenty-five (25) percent of the course work which shall include practicum in the institution they expect to graduate from.

### Article XI Residence and Unit Requirements

SECTION 1. As a general rule, no degree shall be conferred upon a student unless he has taken the last curriculum year of the course in the college which is to confer the degree.

SECTION 2. No student shall be permitted to take any subject until he has satisfactorily passed the pre-requisite subjects.

SECTION 3. As a general rule, a student shall be allowed to carry a maximum load of twenty-one (21) units each semester. Units in excess of his requirement shall need a special permit from the Ministry of Education, Culture and Sports.

SECTION 4. If a student obtains a grade of "Incomplete" for non-compliance with some requirements of the course he shall not be given any credit for the subject course unless

he satisfactorily removes the incomplete grade within one year from the date it was obtained. The completion grade and the incomplete grades not so removed within one year shall be recorded and submitted immediately on a supplementary form (Form IX). No school shall give a final grade of "4" or "conditioned."

### Article XII Effectivity

SECTION 1. These rules and standards shall take effect beginning School Year 1983-84.

SECTION 2. This Order supersedes all previous rules and standards.

### THE TEACHER EDUCATION PROGRAM Bachelor of Elementary Education

#### A. RATIONALE AND OBJECTIVES

Teacher education as a vital component of the total educational process is faced with the continuing challenge of having to adapt its programs and practices to the accelerating changes that occur in the elementary and the secondary education sectors. In fact, teacher education ceases to be relevant if it does not answer the need in these two sectors of education.

In the light of the new orientation in Philippine elementary education, the need to reexamine and redirect the teacher education program has become imperative. It was for this reason that the Philippine Association for Teacher Education, in cooperation with Bureau of Higher Education, Ministry of Education, Culture and Sports and Fund for Assistance to Private Education, has embarked on the task of developing a revised teacher education curriculum that would meet the kind and the quality of teachers who will implement the new elementary school curriculum. This proposed Teacher Education Curriculum was presented to various sectors of society in several consultative meetings and conferences to make sure that the program will produce the kind of teachers needed by the new elementary school curriculum.

The curriculum was so designed as to produce teachers who can assume the major roles specified by the new elementary curriculum, namely:

- an effective conveyor of organized knowledge which has developed from human experience through the ages, such as language, mathematics and natural science, history, geography, literature and the fine arts, civics and culture;
- an efficient promoter and facilitator of learning that will enable the learners to develop to the fullest their potentials for a continuing pursuit of self-education;

3. a true humanist who possesses a clear understanding and appreciation of the genuine human ideas and values that elevate the human spirit, refine human nature, and contribute to the human being's unending quest for fulfillment.

Among the salient features of this teacher education curriculum are the following:

- 1. a provision for the mastery of the basic subjects such as communication arts, mathematics, civics and culture, and science as called for by the new elementary school curriculum;
- inclusion of new courses, such as social philosophy, that had been designed to develop the desired Filipino values that will enhance humanism and filipinism;
- integration of theory and practice in the professional courses;
- 4. provision for more field-based experiences; and
- emphasis on the mastery of targeted competencies.

### IMPLEMENTATION GUIDELINES

The implementation of the new Bachelor of Elementary Education (B.E.Ed.) curriculum shall be gradually effected as follows:

> 1983–1984 – First Year 1984-1985 - First and Second Year 1985-1986 - First, Second and Third Year 1986-1987 - All years

- Institutions with government authority or recognition to offer the present Bachelor of Science in Elementary Education (B.S.E.Ed.) will use the same authority extended to them without the needed for new application.
- Institutions offering the B.E.Ed. curriculum are encouraged to follow the 144 unit requirements as approved. Additional internal requirements to satisfy institutional philosophy and program thrust should not exceed six (6) units, information on which shall be given the MECS.

- 4. The teaching of the values of humanism and Filipinism should be infused in the general and professional courses of the B.E.Ed. curriculum since this is a Ministry-wide thrust.
- Practicum in the professional courses should be done in cooperation with the laboratory school of the college/university or elementary schools in the area where the teacher education institution
- Team teaching is authorized for teaching any course which calls for the experience of different instructors.
- Student Teaching should be offered during the last semester of the Fourth Year and should not be taken with any other subject to enable student teachers full concentration and total immersion in actual teaching.

C. SUMMARY OF THE CURRICULUM For Bachelor of Elementary Education (B.E.Ed.)

### 1.0 General Education

107 units

-		0.001011			
1.1	Englis	<u>h</u>		21	units
	1.1.1	(Including Intensive English)		units units	
	1.1.4	position Effective Writing Children Literature	3 3	units units units units	
		Developmental Reading	3	units	
1.2	Spanis	<u>h</u>		12	units
	1.2.1	Elementary Spanish- Grammar & Composition Intermediate Spanish-	3	units	
	1.2.3	Grammar & Composition	3	units	-
	1.2.4	& Composition	_	units	
		Writings	3	units	

3 units

1.3	<u>Pilipino</u>	12 units
	1.3.1 Gamiting Pilipino,	
	Komposisyon at Pagbasa 1.3.1 Kasanayan sa Pakikipag-	3 units
	talastasan 1.3.3 Panitikang Pilipino 1.3.4 Pilipino sa Tanging Gamit	<pre>3 units 3 units 3 units</pre>
1.4	Science and Health	11 units
	1.4.1 Earth Science 1.4.2 Laboratory Science Subject (Biological or Physical) 1.4.3 Health Education - Personal and Community Hygiene	3 units 5 units 1
1.5	·	3 units
· · · · · · · · · · · · · · · · · · ·		9 units
	1.5.1 Basic Mathematics 1 1.5.2 Basic Mathematics 2 1.5.3 College Algebra	3 units 3 units 3 units
1.6	<u>Humanities</u>	9 units
	1.6.1 Art Education 1.6.2 Fundamentals of Music 1.6.3 Philippine Music (Including Materials and Methods of Music Instruction)	3 units 3 units 3 units
1.7	Social Sciences	27 units
	1.7.1 General Psychology 1.7.2 Logic 1.7.3 Social Philosophy 1 (Including General and	3 units 3 units
	Professional Ethics) 1.7.4 Social Philosophy 2 1.7.5 Philippine History: Roots and Development	3 units 3 units
	1.7.0 Philippine Government and	3 units
	the Constitution 1.7.7 Economics (Including Taxation and Agrarian Reform and other Current	3 units
	Issues	3 units 3 units 3 units

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4		
	1.8 Home Economics and Practical Arts	6 units
	1.8.1 Home Economics 1/Practical	
	Arts 1/Livelihood Education 1	3 units
	148.2 Home Economics 2/Practical Arts 2/Livelihood Education 2	3 units
0.0		
2.0	Professional Education	37 units
	2.1 Human Growth, Learning and Development	3 units
	2.2 Foundations of Education 1 (Sociological, Psychological, Anthro-	_
	pological Foundations)	3 units
,	2.3 Foundations of Education 2 (Historical, Philosophical and Legal	•
	Foundations Including Philippine	
	Educational System)	3 units
•	2.4 Principles of Teaching and Educational Technology	•
	(Including Instructional and Curri-	
÷	cular Management and Basic Computer Concepts)	3 units
	2.5 Measurement and Evaluation	<i>y</i> 44240
	(Including Educational Research) 2.6 Guidance and Counseling	3 units
· · · · · · · · · · · · · · · · · · ·	(Including Introduction to Special	
	Education) 2.7 Teaching Strategies 1	3 units
•	2.7 Teaching Strategies 1 (Communication Arts in English &	
	Pilipino with emphasis on the	
	Teaching of Reading) 2.8 Teaching Strategies 2	3 units
	(Civics & Culture, Geography, History	<sup>r</sup> ,
	HE/Practical Arts/Livelihood Education and Non-formal Education)	3 units
	2.9 Teaching Strategies 3	y units
2	(Mathematics, Science, Health & PE) 10 Student Teaching	3 units 10 units
	_	10 diffus
3.0 I	Physical Education (with Health Education)	(4) units
	3.1 Physical Education 1	1 unit
	3.2 Physical Education 2 3.3 Physical Education 3	1 unit
	3.4 Physical Education 4	1 unit 1 unit
4-0-0	Citizen's Military Training	(6) units
		<del></del>
	TOTAL -	144 units

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Summary Graduation Requ Bachelor of Elementa	irements for the Degree of ry Education (B.E.Ed.)
General Subject Area	Total Number of Units
General Education Professional Education	107 : 37
Total	: : : 144

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### BACHETOR OF ELEMENTARY EDUCATION (B.E.Ed.)

### FIRST YEAR

### First Semester

Subjects	Description	Units
English 1 Developmental Readin	Communication Arts 1	3 3
Pilipino 1	Gamiting Pilipino, Komposisyo At Pagbasa	n 3
Basic Mathematics 1 Psychology 1	General Psychology	3 3
Philippine History: Roots and Developm	ent	(1)
P.E. 1 C.M.T.		(1,5)

### Second Semester

Subjects	Description	<u>Units</u>
English 2	Communication Arts 2 (Including Intensive English)	3
Pilipino 2 Basic Mathematics 2	Kasanayan at Pakikipagtalastasa	n 3 3
Psychology 2	Human Growth, Learning and Development	3
Logic Philippine Government and the Constitution P.E. 2 C.M.T.	-	3 (1) (1.5) 18

### SECOND YEAR

### First Semester

Subjects	Description	<u>Units</u>
English 3 Pilipino 3 College Algebra Music 1 Principles of Teaching and Educational Technology Foundations of Education 1 Earth Science P.E. 3 C.M.T.	Speech and Oral Communication Panitikang Pilipino  Fundamentals of Music (Incl. Instructional & Curricul Management and Basic Computer concepts)  Sociological, Psychological and Anthropological Foundations	3
		<b>4</b> •

### Second Semester

Subjects	Description	<u>Units</u>
English 4 Pilipino 4 Spanish 1	Effective Writing Masaklaw na Pilipino Elementary Spanish	3 3 3
Physical/Biological Science (with Lab.) Music 2	Philippine Music (Including Materials & Methods of Music Instruction)	5 3
Foundation of Education 2	Historical, Philosophical and Legal Foundations (Including Philippine Educational System)	
P.E. 4 C.M.T.		(1) (1.5)

### THIRD YEAR

### First Semester

Subjects  English 5 Spanish 2 Social Philosophy 1 (Including General and Professional Ethics) Home Economics/Practical	<u>Description</u> Children's Literature Intermediate Spanish	Units 3 3 3
Arts/Livelihood Education 1 Geography Teaching Strategies 1 Health Education	Teaching Communication Arts in English & Pilipino with emphasis on the Teaching of Reading Personal & Community Hygiene	3 3 • 3
<u>Subjects</u>	Second Semester	- :
English 6 Spanish 3	Description Philippine Literature (Including Introduction to Literature)	Units 3
Art Education Home Economics/Practical Arts/Livelihood Education 2	Advanced Spanish	3 3
Social Philosophy 2 Teaching Strategies 2	Teaching Civics & Culture, Geography, History, H.E./ Practical Arts/Livelihood Education & Non-formal	3 3
Measurement & Evaluation (Including Educational Research)	Education	3 21

### FOURTH YEAR

### First Semester

Subjects	Description	Units
Spanish 4-N   Economics & Taxation and Agrarian Reform	Selected Writings	3 3
(Including other Current Issues) Rizal's Life and Works Teaching Strategies 3	Teaching Mathematics, Science, Health and P.E.	3 3
Guidance and Counseling (Including Introduction to Special Education)		3 15

### Second Semester

Subjects	Description	Units
Student Teaching	•	10

### Note:

Observation and Participation should be required in all professional courses.

Team teaching is recommended for the Teaching Strategies courses.

SAMPLE LIST OF SPECIALIZATION COURSES IN SOME SUBJECT AREAS IN ELEMENTARY EDUCATION\*

### AREAS OF CONCENTRATION

### Communication Arts

### Pilipino

- Reading in Pilipino Literature Children's Literature in Pilipino
- Teaching Pilipino to Non-Tagalogs
  Preparation of Instructional Materials in
  Pilipino and Creative Writing
  Basic Linguistic Principles in Pilipino
- Fundamentals of Translation

### English

- Introduction to Linguistic and Language Teaching
- Teaching English as a Second Language Teaching Reading in the Elementary Grades
- Speech Improvement for Teachers
- Advanced Composition and Creative Writing Elective in Literature
- Campus Journalism

### Science

- Seminar in Science Education
- Physics for Teachers 2.
- Botany
- 4. Chemistry for Teachers
- Zoology

### 3. Mathematics

- History of Mathematics Special Methods in Teaching Mathematics in the Elementary School Elementary School Mathematics
- Foundation and Structure of Mathematics
- Elementary Statistics and Probability Seminar in the Curriculum and Teaching of Mathematics

Intended merely for reference purposes. The Teacher Education institutions should prepare their own lists and course descriptions on the basis of their needs and available resources.

### 4. Social Studies

- Sociology (with emphasis on rural societies) Cultural Anthropology
- International Relations
- 4. Elective in Social Science
  5. Elective in Philippine History
  6. Teaching Social Studies in the Elementary School
  7. Philippine Culture
  8. Ethiop

- 8. Ethics 9. Social Philosophy

#### 5. Music

- 1. Applied Music
  2. Basic Education Leadership
  3. Fundamentals of Music Theory
  4. Historical Survey of Music
  5. Choral Work and Conducting
  6. New Perspective in Music Education

### Art Education

- 1. Methods of Teaching Art
  2. The Child and His Art Products
  3. Design Color
- 4. History of Art Education 5. Drawing and Painting
- 6. Lettering and Advertising Art

### 7. Reading in the Elementary School

- 1. Reading Improvement Course

- 1. Reading Improvement Course
  2. Foundations of Reading
  3. Teaching of Reading in the Elementary Grades
  4. Diagnosis and Remediation
  5. Preparation and Evaluation of Reading Materials
  6. Reading and Literature
  7. Linguistics and Literature

### BACHELOR OF ELEMENTARY EDUCATION (B.E.Ed.)

#### DESCRIPTION OF COURSES

### GENERAL EDUCATION

#### English 1

### - Communication Arts 1 - 3 units

The course is designed to help the learner gain communicative competence through improvement of the basic language skills; listening, speaking, reading and writing. It affords him a knowledge of functional grammar in oral as well as written expression. It equips him with proficiency in the use of the library and furnishes him opportunities for advancing his reading comprehension skills most needed in academic work.

## English 2 - Communication Arts 2 - 3 units (Including Intensive English)

The course is intended to reinforce the learner's communicative competence by a thorough, functional approach to grammar with particular stress on sentence effectiveness. To serve the student's writing needs, provision for practice in the theories and principles of organizing, developing and refining narrative, expository and descriptive paragraphs and compositions are given. Shaping the outline, the precis, the paraphase and the abstract and writing technical and scientific reports are also taken up. Special emphasis is given on the preparation of a research papers.

### English 3 - Speech and Oral Communication - 3 units

This course provides for the improvement of skills needed in oral interchange between people. It includes a study of the mechanics of oral communications, the various speech forms and models for analysis, the principles underlying the performance of each form and a great deal of opportunity for intensive practice.

### English 4 - Effective Writing - 3 units

This course discusses the writing process, namely: artistic and informative. It teaches explicit principles of writing, offers illustrative models and provide specific writing and usage practice. It stresses three steps in composing, planning, writing, and revising. Training for a variety of purposes - narration, description, exposition and persuasion is provided.

### English 5 - Children's Literature - 3 units

This course is a study of the world's literature for children and adolescents. Children's literature written in English by Filipinos and in translation from Philippine languages form a major portion of the course. It helps the student (1) become familiar with the content, form and scope of children's literature, (2) select appropriate materials for specific learning, (3) develop effective presentation techniques such as storytelling, dramatization, choral reading, etc. and (4) create simple poems and stories for children with emphasis on sense of humanism and Filipinism.

### English 6 - Philippine Literature (Including Introduction to Literature) - 3 units

This course is a study of Philippine writings in English from its early beginnings to its flowering and maturity. The various literary types are taken up to enable students to understand and classify works of Filipino writers. It evaluates the place of the Filipino writer in the English speaking world (international scene) and studies in depth the major Filipino writers and their contributions to the Philippine literary heritage in English.

#### Developmental Reading - 3 units

This course is intended to give the learner background knowledge on the nature and psychology of the reading process and various topics related to the acquisition and refinement of reading skills. It stresses the relevance of foundation disciplines such as physiology, psychology, linguistics, sociology, anthropology, etc. in the developmental reading program. Reading as thinking is also given emphasis from the earliest developmental stage, the pro and sensori-motor stage or the reading readiness stage to the period of formal operational thought or refinement of reading skills. Furthermore, the course stresses knowledge of why and how a child learns to read and what he should read when the need arises so that he may develop according to his ability and become an independent and efficient reader.

## Pilipino 1 - Gamiting Pilipino, Komposisyon at Pagbasa - 3 units

Sa kursong ito lilinangin sa mag-aaral ang kaalaman at kakayahan sa wastong pakikinig at mabisang pagpapahayag; sa pagbasang may matalas na pang-unawa, pagpapahalaga at wastong pagpapakahulugan; wastong pagsulat at kaalaman sa mga tuntunin ng ortograpiyang Pilipino; kaalaman at kasamayan sa gamiting Pilipino (functional Pilipino).

### Pilipino 2 - Kasanayan sa Pakikipagtalastasan - 3 units

Ang kursong ito ay patuloy na magbibigay-diin sa paglinang ng kakayahan at kasanayan sa bihasa at may pagkaunawang pagbasa, mabisang pagsasalita at wastong pagsulat, na may kaugnayan sa apat na paraan ng pagpapahayag - paglalahad, paglalarawan, pagsasalaysay at pangangatuwiran at batay sa mga pangunahing tuntunin ng balarilang mahahango sa pag-aaral at pagsusuri ng iba't-loang anyo ng panitikan.

### Pilipino 3

#### - Panitikang Pilipino - 3 units

Sarrey, pagbabasa at pagpapahalaga sa panitikan ng Pilipinas mula sa bago dumating ang Kastila hanggang sa kasaluku-yan, panpanood ng mga pagtatanghal (dula, pelikula, atb.) dulawit, balagtasan, pagsusuri sa anyo at nilalaman ng panitikan na binibigyang panuunan ng pananaw ang panitikan bilang salamin ng buhay at kultura ng Pilipino na nagsasaad ng mga adhikain, mithiin at pangarapin ng lahing Pilipino; mga suliranin at karanasan sosyo-ekonomiko-pulitikal na naglulundo sa pagkalinang ng ngayo'y katauhang Pilipino. Paghahambing ng mga napag-aralang akda sa panitikan ng mga bansang silanganin at kanluran.

### Pilipino 4

#### - Pilipino sa Tanging Gamit - 3 units

Saklaw ng kursong ito ang pagpapaunlad at pagpapayaman ng talasalitaang Pilipino sa pamamagitan ng pagsasalin upang makatipon ng mga gamiting katawagang panturo at talasalitaang Pilipino para sa mga tanging gamit; at ang paghahanda ng mga kagamitang panturo (banghayng pagtuturo, hanggang pangkat/unit, patnubay, gabay, atb.) para sa mababang paaralan.

### Spanish 1

## - Elementary Spanish - Grammar & Composition 3 units

The course aims at acquisition of basic and simple gramatical structures through a second language approach. Extensive use is made of realistic situations with a concentration on the audio and aural aspects. The scope of the course is the present tense of the indicative mood of regular verbs and some irregularverbs and the proper placement of object pronouns are introduced. Insights into the imperative mood are given.

### Spanish 2

## - Intermediate Spanish - Grammar & Composition 3 units

An increase in the student's vocabulary is made with the introduction of idiomatic expressions. Since grammatical structures form part of the course content, students are encouraged to construct sentences to enable them to express their ideas. The simple preterite, the imperfect, indicative, the future imperfect indicative, the present perfect indicative and the conditional mood are taken up in this course.

### Spanish 3 - Advanced Spanish - Grammar and Composition 3 units

This course deals with the study of the subjunctive mood through the second language approach. The verbs that govern the subjunctive and those adverbial phrases that need the use of the subjunctive are taken up. Agreement between tenses of different mood is also a part of the course.

### Spanish 4N - Selected Writings - 3 units

Now equipped with nine units of basic and advanced Spanish, and in line with R.A. 5182, the students are introduced to the original writings in Spanish of Rizal, Mabini, and other heroes. Stress is given to the relevance of the heroes' writings to oresent conditions without forgetting the values-oriented thrust of Philippine education.

### SCIENCE AND HEALTH

### Earth Science - 3 units

This is a general survey course in physical science which aims to give students a comprehensive and broad treatment of Astronomy, Meteorology and Geology, and to train them in the scientific method of obtaining knowledge by showing them observations, assumptions, theories, controlled experiments, etc. It also includes the study of the earth's natural resources and their conservation.

### Laboratory Science (Biological or Physical - 5 units

#### Health Education 1 - Personal and Community Hygiene

This course deals with the study of concepts and principles of healthful living and their implications to the individual, the school and the community. It aims to increase awareness and knowledge about the health problems in Philippine Society, e.g., population growth, drug addiction, malnutrition, pollution, sanitation, etc. It also aims to provide the prospective teacher with the principles and techniques in school health education program with emphasis on the teacher's role and responsibility for the school child.

### Basic Mathematics 1 - 3 units

This course deals with the study of the Hindu-Arabic system of numeration, the four fundamental operations on whole numbers, fractions and decimals, ratio, proportion and percentage tinclude interest, discount, banking, etc.) square root. How to teach each topic and relevant historical and biographical notes should be integrated in the teaching of each topic.

### Basic Mathematics 2 - 3units

This course includes geometry, measurement, maps, graphs, scale drawing, number theory and experimental probability, How to teach each topic, and historical notes should be integrated in the teaching of each topic.

### College Algebra - 3 units

This course includes a brief discussion of sets, basic notation, set operations and rational and irrational numbers. The number system is represented as a deductive logical system, thus giving some idea of not only the nature of the number themselves, but also the operations on these numbers and the properties they possess. Operations with Algebra experiences are also included. Topics in inequalities, equations, applications and some fundamental concepts of probability are given emphasis.

#### HUMANITIES

### Art Education - 3 units

This is a beginner's course dealing with (1) a brief survey of the history of art education in the Philippines and abroad: of art; (2) the current practices, philosophy, and concepts in the teaching of art; (2) actual experiences with some art activities in drawing, painting, paper craft, lettering, carving, modelling; and (4) art appreciation experiences. All these are designed to give the students an adequate foundation in developing his taste, appreciation, and skills which he may suitably apply in the classroom, at home, and in the community.

### Music 1 - Fundamentals of Music - 3 units

An introduction to the rudiments and elements of music as a means to musical discovery and growth through singing, listening, playing, moving, reading, and creating with emphasis on music reading for the BEED program.

## Music 2 - Philippine Music (including Materials and Methods of Music Education) - 3 units

This is a continuation of Music Education 1 with emphasis on Philippine music. Presentation, organization, and study of teaching strategies and materials for the elementary schools, including some aspects of the ORLS and KIDALY methodologies will be included.

### SOCILI SCHENCES

### General Psychology - 3 units

This course provides background knowledge of principles through which human behavior may be understood. It includes study of man as an organism, the development of his behavior and how he reacts to forces and condition in his environment. It covers the study of perception, imagination, attention, thinking, reasoning, emotions, motives, adjustment, mental health and personality.

### Logic - 3 units

This is a study of logic as an art. It deals with correct, independent and critical thinking. It studies the fundamental concepts and laws of logic and their use in scientific pursuits.

## Social Philosophy 1 (Including General and Professional Ethics) 3 units

This course is intended to enable the students to understand social meality and to consider man in his social dimensions. It includes a philosophical analysis of man, society, social order, the state and its functions. The existential ends of society like the common good, rights and duties of citizens, justice-social justice, in particular, are studied.

The first part of this course deals with the proper human relationships and moral values governing society. Stress will be given to the professional code of ethics for teachers. The emphasis is on the understanding of the ethical relationships of the teacher, vis-a-vis his profession, his students, colleagues, parents and the country.

## Social Philosophy 2 - Values Identification and Inculcation - 3 units

This course integrates Sociology and Philippine Culture with emphasis on value-identification and inculcation that will hasten development in Philippine Society. It includes the study of the value system of prototype societies, both the highly developed as well as the slow-developing countries in the world with the end in view of indentifying values that will accelerate development, instill a strong sense of nationhood and pride in being a Filipino. Emphasis should be placed on deepening the students commitment to work for the general welfare of his country and people rather than for himself and his immediate family.

## Philippine History - Philippines: Roots and Development - 3 units

This course deals with the panoramic presentation of the achievements of the Filipino from pre-historic to the present times as gathered from oral and written accounts, shared beliefs and archeological findings. Emphasis is on a single stream of indigeneous heritage that branched out into streams of colonial and other outside/foreign influences merging into a single stream, a flowing current brought about by the new surge of nationalism. Visits to historical places, museums, archeological diggings, and film showings must supplement traditional lecture and discussion methods to give the students the opportunity to understand and appreciate their history and culture better.

### Philippine Government and the New Constitution - 3 units

This course traces the development of the political and other allied institutions in the Philippines since Barangayanic days to its present form and systems. Emphasis should be placed on understanding the present form of government which is a blend between the parliamentary and the presidential forms, based on the culture and temperament of our Philippine society. Actual observation of the different government institutions at work must complement and supplement lectures and discussions. Stress should be made on the predominant features of the new constitution: stewardship, command responsibility, and accountability.

## Pronomics and Taxation and Agresian Reform (Including Current Issues) - 3 units

This is a study of the agrarian system and its effects on the development of the country during the different periods of Philippine listory. Emphasis is given to the measure taken by the government which resulted to the present agrarian reform program aimed at improving the land ownership/agricultural situation in the country.

Basic principles of economics are taken up as they apply to the agrarian program and other development thrust of the covernment. The study of the principles and characteristics of taxation are also taken up to cleate greater awareness of the benefits and obligations relevant to the payment of taxes.

### Geography - 3 units

This course deals with the study of the relationship between men and his environment. It includes a survey of man's political life and natural environment with emphasis on the formation of political states and institutions based on geographic and economic principles. Focus is on the physical economic, and topographical aspects of the countries of the world, particularly the Philippines.

### Home Economics 1 & Practical Arts/Livelihood Education 1 - 3 units

This course consists of Food Preparation and Serving with emphasis on the preparation and attractive serving of simple, indigeneous, nutritions recipe. Family Relationships with emphasis on worthy family membership and Child Care; Clothing Textile Study; Home Management with emphasis on budgeting, home repairs and up-keep, home decoration (whenever possible of recycled crafts) and landscaping (focus on backyard vegetable garden and herbal plants) are also stressed.

### Home Economics 2 & Practical Arts 2/Livelihood Education 2 - 3 units |

This course is a continuation of Home Economics 1/
Livelihoo? 1. The focus is on productivity and gainful occupations
to augment the family & income such as worthwhile cottage industries and home crafts. Enterpreneurship should be developed in
the students especially along the line of cooperative quality
control and marketability of products. The course aims to
develop in the student proper work attitudes and habits, discipline and confidence in his ability to contribute to the nationwide campaign for food production. Likewise, it helps him gain
skills and proficiency in the proper manipulation of tools and
unilization of materials and the processes involved in the
production of nandicrafts.

### PROFESSIONAL EDUCATION

## Foundations of Education 1 - Sociological, Psychological, and Anthropological Foundations of Education - 3 units

This course is a synthesis of fundamental psychological and sociocultural data and principles as they apply to education. Emphasis is placed on understanding, motivating and directing the teaching-learning experiences of the students within the context of the sociocultural milieu in which these principles operate.

The course also seeks to equip students with skills and techniques to make them active agents of change and innovations, instilling in them at the same time appreciation of the worth-while traditions of the Filipino.

## Foundations of Education II - Historical, Philosophical, Legal Foundations Including the Philippine Educational System - 3 units

This course deals with the philosophy, history and development of educational theory and practice as they relate to the national goals and ideals of education. It includes a study of the Philippine Educational System. It also takes into consideration the future society in which the educand will have to live so that using these past experiences he can plan better for his future. It includes discussion of laws of the country pertinent to education.

#### Psychology 2 - Human, Crowth, Learning and Development - 3 units

This course deals with the study of the patterns of human development from conception up to adulthood with emphasis on the intellectual, social, moral and emotional development on the individual. It aims to give the students an understanding of how to deal more effectively with individuals at various levels of growth and development through a study of the different theories of human development and learning.

# Principles of Teaching and Educational Technology (Including Instructional and Cultural Management and Basic Computer Concepts) - 3 units

The course introduces prospective teachers to the complex nature of the teaching act. It deals specifically with principles associated with the different instructional operations and curricular management. It includes the role of educational technology in the management of curriculum and instruction and acquaints students with basic computer concepts fundamental to instruction.

Measurement and Evaluation (Including Education Research) 3 units

This course deals mainly with test construction and evaluative measurement, interpretation of results, marks and marking system. It also deals in part on the fundamentals of educational research and the distinction among the basic methods of testing and researches in education.

Guidance and Counseling (Including Intro. to Special Education)
3 units

This is designed to give prospective teachers and guidance counselors a general review of the entire guidance program and the meaning and purpose of guidance. It acquaints students with the fundamental structure, principles, mothods, techniques, tools, and instruments of guidance and counseling at the elementary level. It also provides students with understanding of the nature and treatment of the different behavior problems in the classroom. Emphasis is given on the socio-moral development of the individual and the inculcation of positive attitudes of teachers toward their role and functions in guidance.

Likewise, it provides students with principles and techniques in dealing with exceptional children, as well as children with behavior problems.

Teaching Strategies I - Teaching the Communication Arts (English and Pilipino) with Emphasis on the Teaching of Resding) - 3 units

This course equips prospective teachers with knowledge and understanding of the nature, methodologies and strategies in the teaching of communication arts in English and Pilipino with emphasis on the teaching of reading to enable them to guide pupils in learning to communicate and to read effectively. The emphasis is on the study and application of various teaching models fundamental to personal and social development and improvement in communication skills. It includes strategies in information processing such as collecting, organizing and evaluating data.

Teaching Strategies II - Teaching Civics, Geography, History, M.E.

Practical Arts & Work Ethics and Non-Formal Education 
3 units

This course deals with basic strategies in teaching Civics, Geography, History, Practical Arts, H.E. and Non-formal education. The emphasis is on the application of teaching models basic to values and behavior modification. Such models include: negotiating goals and plans, clarifying and analyzing one's behaviors and roles. Various components of behavior modification models such as identifying objectives, receiving, feedback, providing self with feedback and studying one's progress will likewise be stressed.

## Teaching Strategies III - Teaching Mathematics, Science, Health, P.E. - 3 units

This course deals with the basic strategies in the teaching of mathematics, Science, Health, P.E. and H.E.. The emphasis is given on the application of various teaching models that will develop among students the necessary competencies fundamental to information processing, concept formation, inquiry and problem solving skills.

### Student Traphing - 10 units

This course is designed to provide the student teacher opportunities to apply the principles and strategies of teaching and evaluation in actual teaching-learning situations. It includes experiences in the selection, preparation and utilization of appropriate teaching techniques and instructional materials. The course involves observation and participation in in-campus and off-campus classroom situations.

### Physical Education I - (1) unit

Basic movement skills needed in the performance of stunts and tumblings and other physical exercises based on scientific principles for the improvement and maintenance of high level physical fitness.

### Physical Education 2 - (1) unit

Basic movement and rhythmic skills used in learning and creating simple natural dances; basic dance steps and dance terms needed in the correct interpretation and performance of the Philippine folk dances.

### Physical Education 3 - (1) unit

Fundamental skills of swimming to improve and maintain physical fitness and survival techniques.

Fundamental sports skill in any two of the team sports such as in volleyball, softball, basketball, athletics, sipa, and other Philipine games; playing rules are analyzed more effective playing of the sport.

### Physical Education 4 - (1) unit

Different methods and techniques to facilitate the teaching & learning process in P.E. and the proper selection of appropriate physical education activities for the different grade levels in the elementary grades.

### <u>Citizens Military Training (C.N.T.)</u> - (6) units

All male students, including aliens, are required by government regulations to register in C.M.T. (Citizen's Military Training) for four semesters at the beginning of every semester, either for enrolment, deferment or for exemption.

## COURSE AND UNIT REQUIREMENTS OF THE BACHELOR OF SCIENCE IN EDUCATION (B.S.E.) CURRICULUM

A. THE CURRICULUM	B.S.E.
I. GENERAL EDUCATION	Units (Min.)
1. English 2. Pilipino 3. Spanish 4. Social Science      (including General Psychology) 5. Rizal Course 6. Natural Science 7. Mathematics 8. Philosophy and Ethics 9. Health Education 10. Music and Arts 11. Practical Arts - H.E. 12. Physical Education	15 12 12 15 3 11 6 3 3 6 3 4
II. PROFESSIONAL EDUCATION	
1. Introduction to Education     (Including Phil. Educ. System) 2. Child/Adolescent Development & Learning 3. Educational Research and Evaluation 4. Guidance 5. Methodology 6. Student Teaching 7. Electives	3 6 3 6 6 3 
III PIPOTNIPSA	30

#### III. ELECTIVESa

### IV. SPECIALIZATION/CONCENTRATION

1. Field of Specialization (B.S.E.)
(Excluding units earned in General Education Courses)

	<u>Major</u>	<u>Minor</u>
Pilipino, English, Spanish Other disciplines	2 <sup>1</sup> + 18	9 9
Pilipino, English, Spanish major & other disciplines, minor	54	9
Other disciplines, major & Pilipino, English, Spanish minor	18	12

<sup>&</sup>lt;sup>a</sup>All courses needed to complete 156 units shall be free electives.

NOTE:

For one specializing in a specific field of natural science (i.e., physics, chemistry, or biology) at least 19 units but of the total 29 units (i.e. 18 for the "major" plus 11 for the regular load) for natural science should be in the field of specialization, and 4 out of those 19 units should be on laboratory work in the chosen field. Moreover, one specializing in physics (or in chemistry or in biology) should receive upon graduation the degree of B.S.E. major in physics (or in Chemistry, or in Biology—as the case may be).

SUMMARY (Graduation Requirements)

General Subject Area			<del> </del>		 B	.S.E.						<del></del>
desierar bubject Area	:		l. Eng. anish	:	Otl Di Otl	her Pi sc. Spa her sc.	an	. &		Ls	c. 8	
General Education	:	93	units	g	93	units	9	93	units	•	93	units
Professional Education	2	30	tt ·	\$	30	II .	ę	30	11	:	30	tt
Electives*	:	0	tt	8	6	11	3	0	11	:	3	11
Area of Specialization	9			0			?			•		
a. Major	:	24	**	*	18	11	0	24	. 81	:	18	11
b. Minor	•	9	***	;	9	11	8	9	tt	:	12	11
	;			0			0.0			?		
TOTALS	3	156	units	•	156	units	3	156	units	:	156	units

<sup>\*</sup>Those electives may be chosen under the General Education Area.