

Republic of the Philippines
DEPARTMENT OF EDUCATION, CULTURE AND SPORTS
UL Complex, Pasig, Metro Manila

July 1, 1994

DECS O R D E R
No. 55, s. 1994

CURRICULUM IN THE REGIONAL SCIENCE HIGH SCHOOLS

To: Bureau Directors, Regional Directors
and Schools Superintendents
Heads of State Colleges and Universities
Heads of Private Schools, Colleges and Universities
Heads of Community Colleges and Universities
and Vocational Schools

1. As stipulated in DECS Order No. 69, s. 1993, a science high school has an enriched curriculum, in addition to the standard requirements of the New Secondary Education Curriculum (NSEC).
2. Instructional materials in the new learning areas and other enrichment materials shall be provided by this Order.
3. The curriculum of said schools, including time allotment in minutes per day and number of unit credits are reflected in Inclosure No. 1.
4. Course description of additional/new/same subjects with modifications can be found in Inclosure No. 2 for the information and guidance of all concerned.
5. Immediate dissemination of this Order is desired.


ARMAND V. FABELLA
Secretary

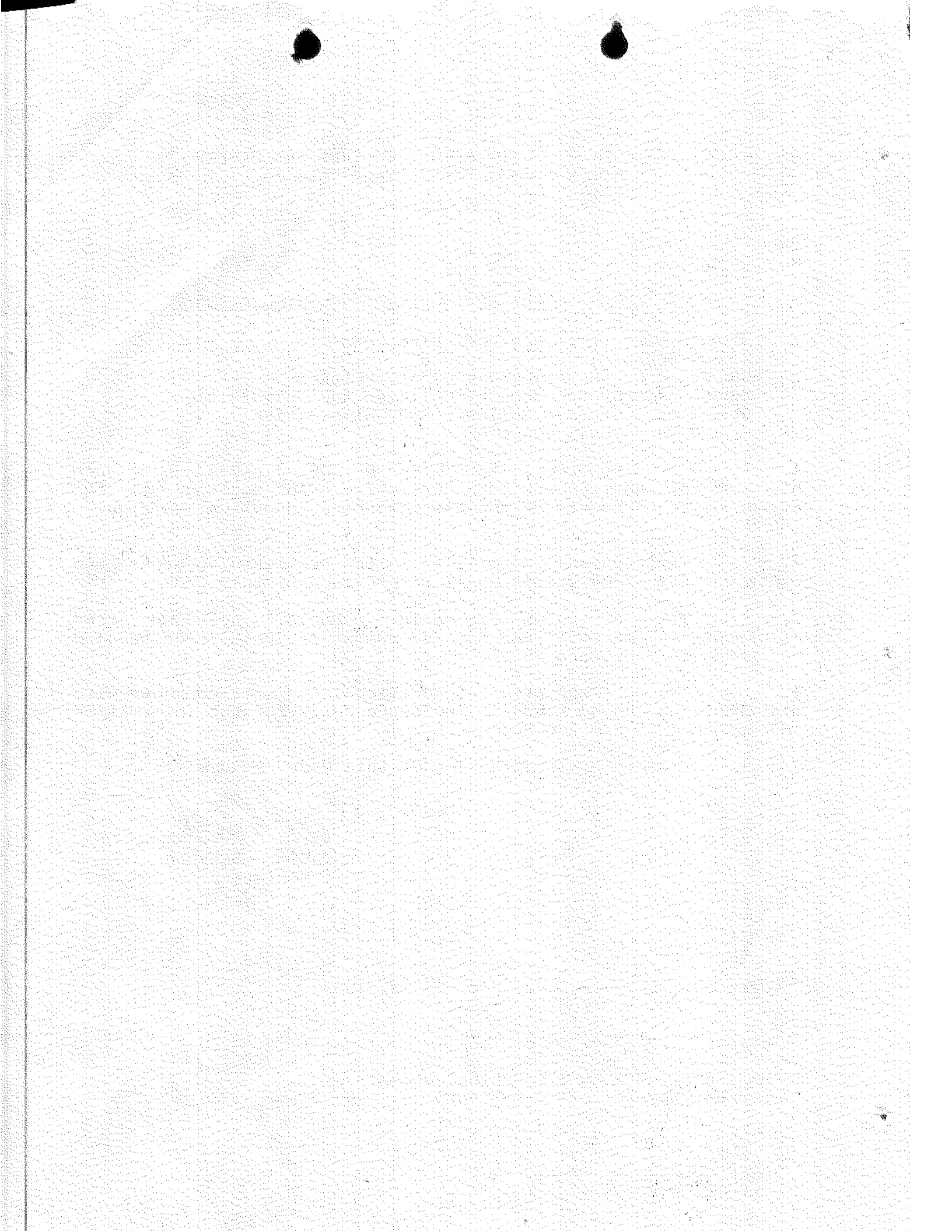
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As stated

References: DECS Orders: Nos. 32, s. 1994
and (69, s. 1993)

Allotment: 1-2-3-4--(M.O. 1-87)

To be indicated in the Perpetual Index
under the following subjects:

- ✓ Course of Study, SECONDARY
- ✓ CURRICULUM
- ✓ SCHOOLS
- ✓ SCIENCE EDUCATION



(Inclosure No. 1 to DECS Order No. 55, s. 1994)

CURRICULUM FOR REGIONAL
SCIENCE HIGH SCHOOLS

	Subjects	Min/Day	Unit Credit
First Year	Mathematics I	40	1
	Natural Science I (Gen. Science)	60	2
	English I	40	1
	THE I (Computer Education I)	60	2
	Filipino I	40	1
	Araling Panlipunan I	40	1
	PEHM I	40	1
	Values Education I	40	1
	*Earth/Environmental Science	40	1
		440 (7.3 hrs.)	11
Second Year	Mathematics II	60	2
	Natural Science II (Biology I)	60	2
	English II	40	1
	THE II (Computer Education II)	40	1
	Filipino II	40	1
	Araling Panlipunan II	40	1
	PEHM II	40	1
	Values Education II	40	1
	Research I (Introduction to Research)	40	1
		440 (7.3 hrs.)	11
Third Year	Mathematics III	60	2
	Natural Science III (Physics I)	60	2
	English III	60	2
	Elective*	40	1
	- Speech and Drama		
	- Statistics in Research		
	Filipino III	40	1
	Araling Panlipunan III	40	1
	PEHM III	40	1
	Chemistry I	40	1
Research IA/Biology 2	40	1	
	440 (7.3 hrs.)	11	

Fourth Year	Mathematics IV (Analytic Geometry/Calculus)	60	1.5
	Natural Science IV (Chemistry 2)	60	2
	English IV	60	1.5
	Elective*	40	1
	Advance Grammar and Composition		
	Advance Statistics in Research		
	Filipino IV	40	1
	Araling Panlipunan IV	40	1
	PEHM IV	40	1
	Physics 2	40	1
	Research IE	40	1
		<u>640 (7.5)</u>	<u>11</u>

*To choose only one elective

(Inclosure No. 2 to DCS Order No. 55, s. 1994)

Course Descriptions of Subjects

First Year

Mathematics I

The enrichment topics and activities are intended to supplement the materials provided by the SEDP Textbook for Mathematics I. The additional lessons related to the same topics being taken in the regular classes have been prepared to challenge the talented students who can be directed to use their time productively.

Computer Education I

This course provides basic information about computers, the disk operating system (DOS) and word processing, it focuses on the application of two wordprocessing softwares, namely, Word Perfect and Page Maker.

It also provides hands-on exercises to enable the students to develop the necessary skills and competencies in using the two word processing softwares. Furthermore, to facilitate and maximize the use of the softwares, this includes the development of correct typing skills.

At the end of this course, the students should be able to submit a hard copy of a report or document making use of the capabilities of the word processors learned.

Earth Science/Environmental Science

This course will enable students to understand the natural processes that occur in their environment, how they influence the changes going on it, and how these changes affect them in return. It will expose students to situations that will develop and enhance their critical and problem solving skills so that they can manage the earth's resources and find solutions to the problems associated with their use.

Environmental concepts such as "everything on earth is interconnected; and what happens to one system will affect the other parts" are integrated. The course will highlight the applications of the earth and environmental concepts as they relate to Philippine conditions.

Second Year

Mathematics II

This course covers topics of geometric relations, triangle congruence, quadrilaterals and similarity. Likewise, the students learn integrated topics in algebraic expressions and operations, mathematical sentences, linear relationships, systems of linear equations and inequalities, exponents, radicals, special products and factors, rational expressions and measures of statistics.

Computer Education II

This course provides information on advanced computer operations and introduces application software packages as a learning tool in processing and solving mathematics and science concepts and equations. It aims to equip the students with the necessary skills and competencies in data processing through the use of Lotus 1-2-3 and Dbase softwares. It presents Lotus 1-2-3 as an intensive worksheet, graphics and database software package that can be used in a variety of mathematical, financial and business applications. Dbase is presented to enhance the data processing capabilities of Lotus 1-2-3.

At the end of a year's course, the students are expected to submit a hard printed copy of a worksheet applying the statistical, financial and mathematical functions of Lotus 1-2-3 and Dbase.

Research I (Introduction to Research)

Research I, an introductory course in scientific and technical writing, equips learners with research skills that will enable them to prepare research reports and outlines of laboratory research/investigatory projects.

As the first formal instruction in research, this course aims to develop skills in selecting a research topic, gathering data, stating the problem, writing and documenting the research report or investigatory project among others.

The course will help learners become aware of the underlying structure of scientific discourse and the way in which sentences are combined to communicate meaning. Hence, at the beginning of the course, students read and write paragraphs that show the rhetorical function, patterns, and macro-patterns of scientific discourse to prepare them for the larger task of research paper writing.

Third Year

Mathematics III

This course is a study of advance algebra. The topics discussed are quadratic equations and functions, variation, sequences and series, exponential functions, logarithmic functions, polynomial functions; permutations and combinations, complex numbers, linear correlation and probability. Mathematics III is likewise a study of trigonometry. It includes topics on circles and circular functions.

Speech and Drama

This course equips students with knowledge of the communication process and skills in speech making, speech delivery, oral interpretation and play production.

It is envisioned that the course will prepare students to communicate both interactively and publicly.

The course stresses hands-on-tasks and activities such as speech exercises, group dynamics, interpreting dramatic texts, participating in dramatic events and producing plays.

Statistics in Research

The course in Statistics in Research is an elective for the third year curriculum level. It provides the learner with the knowledge and skills in collecting, organizing, displaying, describing, interpreting and report writing. The entire process focuses on the practical application of the skills developed by undertaking a complete research work relevant to environmental and social issues.

Chemistry I

This course deals with Science and Technology III NSEC textbook and introduces students to basic chemical principles, shows its relevance to everyday life and includes chemical technology. Supplemental exercises and activities are an additional feature which are over and above the content of 9 and 7 III.

Topics not covered in the aforesaid textbook will be taken in Natural Science IV (Chemistry 2).

Research IA/Biology 2

This course will enhance students' understanding of biological concepts and ethical concerns important for analyzing issues related to biotechnology such as maintenance of biodiversity, in vitro fertilization, genetic engineering, euthanasia, food production and preservation.

The research component will further develop students' microbiological and other research techniques useful for doing investigation on biology related topics and shows continuity/application of Research I (Introduction to Research).

Research IA is intended to be taught two days a week (Monday and Tuesday) while Biology 2 is for three (3) days a week (Wednesday to Friday)

Fourth Year

Mathematics IV (Analytic Geometry/Calculus)

The course includes advanced topics in algebra (functions, inequalities, mathematical induction and matrices), analytic geometry, differential calculus and introductory integral calculus.

Natural Science IV (Chemistry 2)

This course is a continuation of Science and Technology III NSEC textbook. Topics not covered in Chemistry I will be taken plus additional topics on Acids and Bases, Transition Elements, Electrochemistry, Nuclear Chemistry and Stoichiometry. Applied Chemistry such as Chemistry in Food and Chemistry in the Industries is given emphasis.

Physics 2

This course discusses with considerable depth the fundamental topics of physics, attempting to show the unity of the subject and the interaction between theoretical, mathematical and experimental evidence culminating with the study of modern and quantum physics and relativity. It also shows the industrial importance of applied physics through the selection of problems related to engineering principles.

Research IB

This course covers the experimental part of the investigatory project proposed by students. Students are free to choose the discipline they are interested/inclined to work on, either in biology, chemistry or physics.

Advance Statistics in Research

Advance Statistics in Research focuses on the analysis of variance and regression. Students are expected to present two research projects dealing with more than two variables where ANOVA and Regression are applicable. Instrumentation, collection of data, hypothesis testing and report writing are pre-requisites.