This study considers the adequacy of the professional physical education curriculum at Oregon State College as compared with the competencies expected of physical education teachers. The procedures of this study were as follows: first, a brief background study of the development, trends, and basis for present day problems of professional preparation for physical education; second, the preparation of statements of teaching competence in eight areas for physical education; third, a compilation of the course content outlines for professional physical education at Oregon State College; and fourth, a comparison of the course content outlines with the statements of competency that make up the criteria to determine the adequacy of coverage.

The conclusions and recommendations reveal that three of the areas of competency were inadequately covered. These include; interscholastic athletic program, personal skill in physical education and evaluation in physical education. Three other areas, professional growth, nature and conditions of learning through physical activity, and organization and administration, were adequately covered in part by the several courses. The two remaining areas, physical education in society and teaching techniques, were adequately covered.
THE UNDERGRADUATE MAJOR CURRICULUM
FOR PROFESSIONAL PHYSICAL EDUCATION
FOR MEN STUDENTS AT OREGON STATE COLLEGE

by

WILLIAM FREDERICK PEDEN

A THESIS
submitted to
OREGON STATE COLLEGE

in partial fulfillment of
the requirements for the
degree of
MASTER OF SCIENCE
June 1953
Date thesis is presented August 13, 1952

Typed by Dorothy Ehrichs
ACKNOWLEDGMENT

The writer is deeply grateful to those who have helped make this study possible. The limitations of space prohibit mention of the many staff members who have so generously contributed their time and so willingly cooperated in making available much of the material used in this study.

To my major professor, Dr. Robert W. Bergstrom, Department of Physical Education, I wish to express appreciation for his thoughtful guidance and advice during the development and writing of this study.

To the members of the staff of the Department of Physical Education, I wish to acknowledge their helpful criticisms and recommendations.

To my wife, Betty, I want to acknowledge her patience and understanding.
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The professional preparation of teachers for physical education is receiving well-founded thought and attention today. Professional organizations at local, state, district and national levels; state departments of education; and institutions of higher education have initiated programs of study directed toward improving professional preparation for physical education teaching.

The professional curriculum is one of the most discussed features in the problem of teacher improvement. The shortage of adequately prepared teachers of physical education at certain levels, increased enrollments at the elementary level and prospects for a marked increase at the secondary level, low teacher certification standards, and accreditation inadequacies are some of the problems identified with the need for improvement. The final answers to these problems will depend, in part, on revisions, deletions and additions that are made in the professional preparation for physical education.

If it is recognized that there are distinct competencies that should characterize teachers of physical education, then the proposition can be accepted that institutions preparing teachers for this field have the
responsibility of preparing individuals who possess these competencies. The curriculum of higher education institutions should provide experiences which will promote the development of professional competency.

Purpose of the Study

The purpose of this study is to estimate the contribution of the courses required in the professional physical education curriculum at Oregon State College to the development of competent men physical education teachers. The required courses are compared to the proposed criteria and the resultant findings provide a basis for suggestions for improvement in the professional physical education program at Oregon State College.

Sources of Data

The criteria used in this study closely follow the recommendations of the Jackson's Mill Conference on Undergraduate Professional Preparation in Health, Education, Physical Education, and Recreation (37), and the recommendations of the Oregon Association for Health, Physical Education and Recreation (46). A study was made also of the recommendations and findings of students and leaders in the area of teacher preparation for the field of physical education. This background
study provided the foundation for a proposed provisional list of teaching competencies. Continued research and guiding suggestion promoted a number of revisions and additions to this list. Various changes were made in the criteria until it was felt by the writer that the listing represented the thinking and proposals of the majority of authorities in this area.

This list was presented to staff members of the Department of Physical Education at Oregon State College for consideration and recommendations. Meetings were held on May 7th and May 14th for discussion of the criteria. Following these two meetings, final revision was made in the criteria and the staff accepted the listing of teaching competencies as representative of their viewpoint for professional physical education preparation.

The courses that constitute the professional physical education curriculum at Oregon State College were obtained upon request from individual instructors. These materials were received in different forms, syllabi, course outlines, study sheets, lecture notes and text books were offered as material containing course content. To achieve uniformity and to facilitate comparison, a common outline form was used for listing the content in
all courses. To accomplish this, certain steps were followed: first, the material that represented the content of a course was secured; second, an attempt was made to treat and condense the material so that it would conform to the outline and still retain the desired content; third, the course content in this new form was returned to the instructor for his approval of the new arrangement. In some instances, study of these outlines by the instructor revealed some omissions and additions that demanded correction. When the final outline of a course was approved by the instructor, the material was deemed acceptable for inclusion in this study.

Treatment of Data

The criteria used in this study include definite statements concerning understandings, qualifications, and competencies considered necessary for the teacher of physical education. The statements of content in the course outlines reveal the contributions of each particular course to the development of a competent teacher of physical education. The content of all required professional courses is compared to the statements of criteria. The results from this comparison provide the basis for the recommendations of this study.
Limitations

1. This study is limited to the professional curriculum for men physical education students at Oregon State College.

2. This study does not measure, nor attempt to determine, the degree of competency derived from a specific course, or group of courses, in relation to varying levels of scholarship.

3. This study does not investigate health education, science education, recreation or other related courses included in the program of professional physical education. The names and numbers of courses included are found in Chapter III.

4. This type of study is but one aspect of curriculum development. Conclusions from this study will be limited to suggestions for including in the professional program those experiences which seem to promote the effectiveness of the physical education teacher in the areas studied.

5. This study does not measure the actual results of teaching. It deals with the content of courses.

6. It does not measure the success of teachers in the field. However, the criteria were developed in part from studies made of the problems of teachers.
CHAPTER II
DEVELOPMENT OF PROFESSIONAL PREPARATION

This chapter traces the development of professional preparation for physical education in the United States. The material considers the early schools preparing physical education teachers, the early programs of professional preparation, the forces influencing physical education and the attempts made to improve the profession. These areas are treated chronologically and cover the period from the middle of the nineteenth century to the present. The discussion will aid in comprehending the changes over the years in the preparation of physical education teachers and thus afford a better understanding of present problems and existing professional programs.

Early Schools of Physical Education

The early schools of physical education are reviewed with emphasis on the following factors: the date of origin, the founder and the notable contributions of each school. An account of these factors depicts the growth and development of institutions fostering professional preparation for physical education teachers.
Physical education in the United States during the middle of the nineteenth century was characterized by different systems of physical training promoted by enthusiastic advocates. Wood and Brownell (75, p. 41) list four popular systems of this era: "...the drill and discipline of the military academy, th Jahn gymnastics, manual labor on the farm or in the shop and 'calisthenics' for girls and women." For various reasons none of the four were generally adopted nor did any win for itself more than transitory recognition. From 1835 until 1860, though educators became increasingly aware of the importance of physical education, no one proposed a physical education program which seemed appropriate in light of conditions and needs of the time.

After this period Dio Lewis offered his new gymnastics for men, women and children which comprised a system that was definite and practical. The Normal Institute of Physical Education, which Dr. Lewis opened in Boston in the summer of 1861, was the first normal school of physical education to graduate a class of teachers (52, p. 176). Through his aggressive efforts to interpret the values of physical education, Dr. Lewis was instrumental in helping schoolmasters and the general public understand the importance of teaching physical
education to all the children in the schools (59, p. 56). The Institute operated for eight years and during this time it was the only normal school preparing physical education teachers. By 1868 about 250 teachers had been graduated and they carried the theories of Dr. Lewis to many parts of the United States (53, p. 264).

The second school of note to prepare physical education teachers was the Normal College of the American Gymnastic Union (Turnerbund). Authorities do not designate an individual as founder of the school, but rather they record its foundation as an outgrowth of the Turnvereine Convention held in St. Louis in 1866. The school was organized in New York City and began its first complete course in 1866. It produced graduates at an ever-increasing rate until about 1925. The Turnvereine operated the school until 1941, when it was merged with Indiana University. The institution now functions as the College of Physical Education of Indiana University.

An outstanding contribution of the Turnvereine school was the promotion of physical education in the public schools. The Turners contributed moral support, funds, material, publications and leadership to the development of school physical education (53, pp. 166-169).
The third school to prepare physical education teachers was the Sargent School which began in 1881 at Cambridge. The Sargent School grew from the demand for teachers who were acquainted with the methods of the system of physical education advocated by Sargent. The system received considerable acclaim following Dr. Sargent's work as Professor of Physical Education and Director of Hemenway Gymnasium at Harvard in 1879.

The Sargent School was established for the purpose of training women teachers, but was not unlike the professional preparation program established at Harvard. The system stressed the individualistic aspect of physical activity and as a result, helped to evolve an American program of physical education which differed from those that had been borrowed from Germany and Sweden. One of the contributions of Dr. Sargent to physical education was the preparation of hundreds of teachers during his long career as a physical educator (52, pp210-213).

The next school of importance in the professional preparation of physical education teachers is the New Haven Normal School of Gymnastics. The school was founded in 1886 as the Brooklyn Normal School for Physical Education located at Brooklyn, New York. Its founder, Dr. William G. Anderson, was a prominent physical education leader during that period. The name of the Brooklyn
Normal School was changed in 1901 to the New Haven School of Gymnastics.

Writers often discuss the New Haven School in terms of the contributions of its founder, Dr. W. G. Anderson. In addition to other achievements, Dr. Anderson is credited also with organizing in 1886 the School of Physical Education for the Chautauqua Assembly at Chautauqua, New York.

The International Training School of the Young Men's Christian Association was founded in 1885 at Springfield, Massachusetts. A department of physical education was established in 1887. The man considered most outstanding in Y. M. C. A. physical education work during that period was Robert J. Roberts. The work of this school was important in providing physical education for all age levels. A large percentage of the graduates from the school became physical education instructors in the schools and colleges (20, pp. 1-7).

The Boston Normal School of Gymnastics was founded in 1889, and in 1909 the school became the Hygiene and Physical Education Department of Wellesley College. The founder of the school was Baron Nils Posse, who left the school in 1890 to devote his remaining years to founding and managing the Posse Normal School. Under his direction, the Posse school became the center of Swedish
gymnastics in the United States.

The Boston Normal School under the direction of Posse, organized its first class in 1889. The following year, it was reported that more than four-hundred teachers were prepared in the school to give instruction in the "Swedish system of educational gymnastics" (40, pp. 1-12).

Prior to 1900 the professional training of physical education teachers was largely a function of the normal schools. At the turn of the century the normal school had become a recognized and accepted part of the public school system and supplied from ten to forty percent of the public school teachers in the various states (13, p. 319).

The growth of state institutions offering professional preparation for physical education has been influenced greatly by state legislation for physical education. In those states where laws were enacted making physical education a part of the curriculum of the public schools, state institutions were quick to include physical education courses in their professional programs (53, p. 266). The first state university to develop a course of teacher preparation in physical education was the University of Washington in 1895. By
1918 approximately twenty institutions offered undergraduate professional education in the field (12 p. 54).

In those schools where professional physical education was taught prior to 1918, the preparation program emphasized the teaching of gymnastics. It is recognized that during a period of twenty-five years beginning about 1890, gymnastics occupied a most important place in American programs of physical education (61, p. 44).

The early schools of physical education seldom attained more than transitory acclaim, and programs of gymnastics were rapidly vanishing in the decade prior to World War I. The sweeping popularity of Lewis' "New System of Gymnastics" during the 1880's was soon to decline, and today no institution or system originating under Dr. Lewis' promotion now exists. The school of the Turnerbund is still in evidence, but wide following of thousands enjoyed for so many years has now narrowed to a comparatively few followers of the old German turner school. The Sargent School, and the efforts of its founder, contributed a great deal to experimental anthropometry during the 1880's. The emphasis placed on the individual student by Sargent's system has carried over to modern programs of physical education, but his program of "free developing exercises," enjoyed
only a brief span of popularity. The gymnastic normal schools, founded by Anderson in the 1880's were concerned with training instructors competent to teach "Anderson's Physical Education." The exercises promoted by the Anderson system included extensive work with the "Whitely Exerciser," and in common with other systems of the day, enjoyed a period of recognition (2, p.35).

The school of the Young Men's Christian Association is in operation today, and continues to perform a valuable function for the Y. M. C. A., but the large number of graduates, who earlier found employment in the public schools and colleges, is today greatly reduced. The Boston Normal School was recognized as the center of Swedish gymnastics in America in the 1890's, and continued as an important teacher preparation institution during the next 25 years until about 1915 (41, p. 32).

The diminishing influence of the systems of gymnastics and specialized exercises as basic elements of programs of physical education in the United States was caused by a number of events in the growth of American society. The discussion of some of these events appears later in this report and gives an indication of the important social influences effecting professional preparation for physical education teachers.
History of Professional Programs for Physical Education

The above discussion reveals that gymnastics were the basic element in early school programs. The following discussion is concerned primarily with the growth in the number of professional preparation programs of physical education and with the expansion in requirements, curriculum, and course offerings which accompanied that increase in number. The history of professional programs reflects the increasing demand made by public schools for trained physical education teachers.

Only a few physical education training programs operated in the United States prior to 1890. Those institutions offering professional preparation at this time included several private normal schools of physical education, several summer schools, and a small number of state normal schools, colleges and universities (76, p. 146). The growth in the number of institutions offering preparation for the field of physical education was slow during the period prior to the First World War. History relates that by 1914 there were only about fourteen institutions offering preparation in the field of physical education (53, p. 266).

A rapid advance was noted in the number of institutions of higher education engaged in preparing
physical education teachers during, and immediately following World War I. In those states where physical education was legislated into the school curriculum, the state normal schools began offering programs for the preparation of physical education teachers (12, p. 23). In a thirty year period from 1890 to 1920 approximately 175 teacher training programs of physical education were established. Between 1920 and 1930 some 137 institutions sponsored professional programs of physical education and approximately ninety-seven more followed in the next decade despite a severe financial depression (76, p. 146). The tremendous expansion since 1920 is clearly pictured when the number of programs now in operation is considered. It was stated in 1951 that there were well over 450 institutions offering undergraduate major preparation in physical education (18, p. 53). In a study cited previously, (76, p. 146), the writer estimated; "..... at the moment (1950) there are easily over 500 programs sponsored by institutions."

An increase from about fourteen programs in 1914 to over 500 in 1950 discloses the development of 486 programs of professional preparation in a period of thirty-six years. An average of 13.5 new institutions sponsored professional preparation programs each year during this thirty-six year period.
While it is recognized that these figures are estimates, the existence of this vast growth entails some concern. The existence of over 500 professional preparation programs does not necessarily represent 500 adequate programs, since far too many of these institutions are indifferent to any reasonable standards (18, p. 53). A second observation can also be made, that unrestrained growth may jeopardize the profession more than it will help it.

Institutions offering professional preparation programs in physical education improved and expanded their course offerings. The early schools of the late 1800's began with a curriculum of about two months duration and gradually this was extended to a seven months program (53, p. 267). The course content of these programs reflected the philosophies and systems advocated by the various leaders of the institutions.

The curriculum of Dr. Lewis' Normal Institute of Physical Education is reported to have offered two ten-week courses per year with the addition of instruction in the Swedish movement cure, treatment of curvature of the spine and a general study of Ling's system of gymnastics. It is further noted that every student had an opportunity to conduct a small class (52, p. 179).
The curriculum of the early Turnerbund consisted of a course of four months duration. The offerings included the history and theory of the various systems of the day, anatomy, first aid, gymnastic nomenclature and teaching practice (66, p. 15).

The curriculum of the Sargent School stressed Dr. Sargent's theories and practices based on the individualistic aspect of physical education (54, p. 29). The original program in 1881 extended for a one-year period, but the course of study was soon lengthened to require two years study, and in 1902 it was further extended to three years in length (52, p. 264).

The curriculum of the Anderson Normal School offered approximately ten months instruction in the theory and practice of gymnastics. The offerings of the Anderson schools included work with exercises for all age and occupation groups (2, p. 7).

In 1890 the curriculum of the department of physical education at the International Training School of the Y. M. C. A. included medical examinations, promotion of health, lecturing on hygiene, study in anthropometry and research. The system of gymnastics featured in the Y. M. C. A. schools did not center on a single theme as did the German and Swedish systems of this day, but rather comprised an eclectic system suitable to
conditions of the time was worked out. For the position of physical director, the recommended course of study covered a period of four years (52, pp. 194-196).

The curriculum of the Boston Normal School of Gymnastics, under the directorship of Baron Posse, consisted of courses promoting the Ling or Swedish system of educational gymnastics. The required course of study for the first program established in 1889 was for a period of one year (51, pp. 1-24, 7-10).

The programs of preparation in the 1880's averaged about a ten-month course, but by 1890 two years of resident study or its equivalent became the usual requirement. Several colleges added a third year shortly after the turn of the century, but still gave certificates for completing either the two-year or the one-year course. In 1910, a man or woman who had received a diploma from a two-year professional school was considered well equipped for teaching physical education. The minimum requirement of a three-year preparation program did not appear as the usual pattern until well into the 1920's. The decade of 1910 to 1920 marked the development in the profession of the four-year professional program leading to a Bachelors degree with a major in physical education (69, pp. 3-7).
In the following period, 1920 to 1935, some schools provided courses leading to graduate degrees for those who desired and could qualify for a higher degree. In 1929 there were about fifteen institutions offering courses leading to advanced degrees in physical education (51, p. 267). The common design for professional preparation today is for the beginning teacher of physical education to possess a bachelor's degree with a major in physical education as a result of four years of successful study in a teachers college or university (53, p. 267). Some authorities now recommend that a five-year program seems necessary if that program is expected to prepare the prospective teacher to understand the several areas included in modern physical education programs.

The evolution of the four-year professional program in the period from 1910 to 1920 was accompanied by curriculum expansion. Whereas the early aim had been to provide a certain amount of medical knowledge, with the physical education theory and practice depending upon the system of gymnastics propounded by the leader, the content of the curriculum now includes a distribution of study in the areas of general education, basic sciences, professional education and professional physical education courses (76, p. 145).
History of Events Shaping Physical Education

The names, contributions and programs of a particular set of individuals or institutions have little significance unless they are closely associated with the events that were influential during the particular period that they existed. Authorities find common ground for discussion in their study of events that have been most important in shaping physical education. The various historical, social and educational events which gave rise to the need for professional programs and subsequent program expansion are mentioned briefly in the following.

The immigrants that came to America in the nineteenth century brought with them a love for gymnastic exercise. The importance of this old world element to physical education has received attention in an earlier discussion of the leading role held by German and Swedish gymnastics in this country for about seventy years.

The Civil War revealed a genuine need for physical training, either of a gymnastic or of a military character, and added force to the popular athletic and gymnastic movement which had been inaugurated in the 1850's.

The passage of the Morrill Act of 1862 which created the land grant colleges stipulated that military
tactics be taught in these colleges as part of the regular program. This act influenced the physical education programs in the schools of the country by giving a military and formal slant to physical education for a number of years.

The leaders of the playground movement influenced and helped to reshape the school programs of physical education measurably. This phase of physical education appeared in 1906 and has continued as an important part of the program to this date.

The sweeping interest in athletics and sports in the latter part of the nineteenth century has fostered a basic feature of present day programs. The "athletic movement," despite the undesirable features of some programs and the criticisms of certain educational leaders, became established as a part of the physical education program at the turn of the century.

The enactment of state legislation for physical education was first evidenced in Ohio in 1892. Many other states passed similar laws during the following twenty-five years. The greatest amount of legislation for physical education was passed during, and in the decade following World War I. These laws gave to physical education an emphasis on physical fitness as the result of the draft figures.
The enunciation of the Cardinal Principles of Education in 1918, one of which was "the worthy use of leisure," caused physical education to become increasingly alert to the possible contributions which it had to make to "the worthy use of leisure time". The present day recreational phase in school physical education is frequently associated with this event.

The development of co-educational activities at all school levels has come about with the realization of the sociological implications of physical education. Rhythmic activities, particularly social dancing, are the most commonly recognized co-educational activities in programs of physical education.

The "natural movement" in physical education is considered by many authorities as the most important event of the 1920's. This movement was the outgrowth of many historical developments in physical education, and was the genesis of physical education programs that exist today. The program which evolved from the movement included fundamental skills, play activities, self-testing activities, out-of-door camping activities, and individual gymnastics.

The many changes that have been witnessed in educational philosophy and theory in the last hundred years cannot be considered an 'event' but rather they
might be regarded as a number of important events. According to Voltmer and Easlinger (70, p. 3) "...the philosophy of a people, which is always formulated in part by its needs, determines both the form and the amount of its physical activity." Most authorities seem to agree that a changing educational philosophy has produced changed concepts for physical education.

The increased emphasis that has been evidenced in research since about 1925 has prevailed as an actuating force in program change. It is difficult to classify this pragmatical interest in improvement as an 'event', because the contributions of research have resulted in progressive changes in philosophy, in curricula and in method over the years.

The events and factors that have influenced physical education are important in a study of professional programs because of the direct relationship that has existed between these events and additions and revisions to the professional curriculum. Certain activities, formerly discouraged, are now important units in physical education programs; other activities, once of major significance, are now of only minor concern.
History of Attempts to Improve Physical Education

The need for improvement in different phases of physical education has been recognized throughout its history in the United States. Individuals and professional organizations have singled out deficient areas from time to time and have proposed projects designed to eradicate these deficiencies. The more common problems of the profession have not been ignored by persons and organizations in a position to promote their correction, but they have been ignored by a sufficient number of persons to guarantee their existence today (18, p. 53). The following discussion will attempt to trace the efforts of individuals and organizations to improve the profession.

Early efforts to improve physical education were frequently directed to coordinating the thinking of leaders of the day and promoting rudimentary standards. One of the earliest organized efforts of this nature was the Conference in the Interest of Physical Training held in Boston in 1889. This conference was presided over by William T. Harris, U. S. Commissioner of Education, and was attended by a large number of leading educators. The object of the meeting was "......to place before educators different systems of gymnastics and to
secure discussion of the same, with a view to clearly ascertaining the needs of the schools and determining how they may best be met." (52, p. 231). Professional physical education was still in the primordial stage during this period and consequently the emphasis placed on improvement was frequently centered on expansion and addition in course offerings rather than on refined evaluation and rejection of professional work.

With the rise of public interest in physical education there was a phenomenal increase in state legislation enforcing the required teaching of physical education (49, p. 18). The result of this increase in legislation was an increased demand for physical education teachers by the public schools. For many years the demand for teachers was greater than the supply, even with admittedly low certification requirements. (13, p. 326). The certification requirements imposed by much of this early legislation have not changed over the years with the result that many of the certification requirements are outmoded today and stand in definite need of redesigning (53, p. 242). Some state requirements for teachers of physical education are quite low when examined in the light of current professional recommendations. These low requirements plus the increasing demand for teachers produced many which were inadequately prepared.
Accreditation is the device most extensively employed to upgrade professional preparation standards. This movement began in the 1890's. In the period following World War I, a multitude of agencies were active in applying a hallmark or stamp of quality to an institution to indicate the level of excellence attained in its professional preparation programs (18, p. 55).

The rapid growth of accrediting movement resulted in the development of several types of accreditation. General observation reveals that diversified growth and lack of standardization has rendered the efforts of many agencies relatively ineffective (63, p. 65). One large university has membership in ninety-one organizations which seek to accredit its professional curricula (43, p. 12). Another problem is that many institutions are entirely without accreditation. More serious is the fact that none are accredited by departments. This means that institutions could get over-all approval and at the same time maintain a weak department of physical education (18, p. 53).

These facts show that many states do not promote the preparation of competent physical education teachers and existing accrediting procedures do little to insure competency. Since World War I professional training programs have been studied and the adoption
of minimum standards for professional curricula and establishment of accreditation procedures has been advocated. Despite these efforts, this program has not been generally adopted (10, p. 60).

Despite these difficulties, there have been some notable attempts to upgrade the physical education profession. Many of these efforts have denounced professional weaknesses and pointed to the need for improvement. Until recently, however, the recommendations have received little practical attention.

In 1920 a Standardization Committee was appointed by the American Physical Education Association to study problems in professional preparation and ultimately to rate the schools and departments of physical education which prepared physical education teachers. The committee made the following recommendations: (1) classification be made of the institutions based on the character and extent of the work; (2) means of inspection be provided; (3) regular college instructors and health examiners be employed; (4) two years be the minimum preparation for assistants in the gymnasium, playground workers, coaches of teams and teachers of special lines like swimming and dancing (65, p. 178-180).

In 1929 the Curriculum Committee of the American Physical Education Association studied the complete
curricula of 139 institutions preparing physical education teachers. From these data courses were suggested for inclusion in the professional curriculum (1). Another study conducted on the same kind of empirical basis was made by Nielsen in 1930. This study listed 671 physical education courses offered in twenty-eight colleges. Several committees then made out a final list of course names, decided on proper year placement and number of credit hours for each course. Content outlines for these courses were then prepared by another group and a complete five-year curriculum was finally proposed (38, pp. 51-67).

Another committee in 1935 conducted a study of professional preparation for health and physical education. The problem established was, "...to determine standards with which to evaluate the ability of institutions to prepare men and women health and physical education teachers or directors for the secondary school." Course content plus a listing of thirty-nine course titles were presented in the work (39, p. 48-68). Scott, in his study in 1939, asked physical education teachers to check the duties which they performed and those for which they had college preparation. Correlations between
the two led to suggestions for the amount of emphasis to be placed on certain parts of the professional curriculum (59, p. 78).

Studies of success in teaching and problems faced by teachers throw some light on the type of preparation which should be offered in the professional program. McKinstry studied personal traits of ninety graduates of Russell Sage College in 1933. The teachers were divided into three groups on the basis of their employers' estimate of their success (34, pp. 5-25). In 1941 Graybeal made a study of the qualities used by administrators in judging effective teachers of physical education in Minnesota. The qualities found to be most important suggested areas of preparation that needed attention (16, pp. 741-744). In 1945, Kebric investigated the problems of 511 physical education teachers, asking them to check areas in which they had problems as beginning teachers. The concluding recommendations stressed steps for improving professional preparation (22, p. 42-48).

Other committees and individuals have recommended and published courses of study and professional curriculum revisions that have met with general adoption in many institutions.
The professional organizations that have been most active in promoting improvements in physical education are the American Association for Health, Physical Education and Recreation, and the College Physical Education Association. Both organizations, since their inceptions in the latter part of the nineteenth century, have concerned themselves with the improvement of professional offerings. A number of committee studies on the national level have been sponsored by these organizations.

It was reported in 1947 that national committees had twice failed to complete projects on the rating or evaluation of professional physical education on a national level. Previously mentioned was the work of N. P. Nielson in the early 1930's as chairman of the Committee on Teacher Training In Physical Education. This study followed the impetus given by the National Survey of the Education of Teachers made in 1930 and sponsored by the United States Office of Education. The committee studied and proposed workable scales for rating teacher training institutions throughout the nation. By 1935 the project had advanced to the stage where the rating of institutions was ready to proceed. Under the directorship of the College Physical Education
Association, a national committee was appointed and the forms printed to aid in the rating process. Contrary to the recognized need for this program, considerable resistance was generated against it. The thinking of the profession was not coordinated to the degree where acceptance of the plan could be realized, and by 1937 the project had disintegrated from lack of interest.

A second attempt was made by the College Physical Education Association just prior to World War II. A committee was formed to promote a cooperative study on professional education of physical education personnel, but the project was defeated before the committee's efforts could be recorded by the onset of World War II. Many of the members were called into service with the armed forces while other members concentrated on reviewing their own programs to meet the needs of pre-induction students (57, pp. 98-103).

From time to time individuals have studied the problems existing in professional preparation and, selecting certain factors or institutions that were of unique interest to them, they have presented their findings and brought forth suggestions. For the most part, studies of this type have been conducted as a segment of the work for an advanced degree, i.e., masters' thesis and doctor dissertations.
Two investigations of this nature that have been conducted in the last two years are:

A Proposed Program for the Preparation of Men Physical Education Teachers in Wisconsin. This study was made at Ohio State University in 1950, and makes an investigation of the attitudes and practices of men teaching physical education in the public schools of Wisconsin. The author proposes a professional curriculum which adheres to his survey findings (3).

The Undergraduate Preparation of Teachers in Physical Education. This study, conducted by a doctoral candidate at Teachers College, Columbia University in 1950, considered the general principles of curriculum making and offered recommendations for programs preparing teachers of physical education (62).

The following are relatively recent studies that have been concerned with professional preparation for physical education in Oregon, and particularly Oregon State College.

A Recommended Undergraduate Program of Professional Physical Education for Men Students at Oregon State College. This study was executed at Teachers College, Columbia University in 1947. This study has as its theme the promotion of the undergraduate major for physical education
at Oregon State College. A recommended curriculum for the undergraduate program is presented as a result of the author's detailed study of the problem (4).

Guidance Suggestions for Prospective Men High School Teachers of Physical Education Based on Current Practices in Oregon. This study was made at Oregon State College in 1949 and presented the findings which resulted from a survey form sent to physical education teachers in Oregon secondary schools. The conclusions of this study contain implications for professional physical education programs in Oregon (31).

There has been a definite emphasis placed on organized research for improving teacher education since World War II. Two recent studies of the preparation of physical education teachers have been developed on the national level. These studies are known as: The National Conference on Undergraduate Professional Preparation in Health Education, Physical Education, and Recreation and The National Conference on Graduate Study in Health Education, Physical Education and Recreation. These conferences were held at Jacksons Mill, Weston, West Virginia in December 1948, and at Pere Marquette State Park, Illinois in January, 1950 respectively.
Both of these conferences propose standards or criteria for professional preparation, and are recognized generally as the most important in this area of the field to date.

The emphasis on organized attempts to improve the profession is further indicated by cooperative efforts of leaders in the field during recent years. Evidence of cooperation at the national level is found in the following examples:

The National Commission on Teacher Education and Professional Standards, established in 1946, has been active in conducting studies, promoting national and regional conferences, supporting efforts to develop and apply standards for teacher-preparing institutions, and cooperating in the movement to improve certification practices.

The American Association of Colleges for Teacher Education, formed in 1948 by the amalgamation of the American Association of Teachers Colleges, the National Association of Teacher Education Institutions in Metropolitan Districts, and the National Association of Colleges and Departments of Education, represents another important development in the movement to improve teacher education.
The Coordinating Committee on Collegiate Problems of Teacher Education, formed in 1949, has directed most of its attention toward the complex problems of accreditation and the development of evaluative criteria for teacher education.

A fourth example of this movement at the national level is the 1951 proposal for a National Council for Accreditation of Teacher Education. This National Council is not to be confused with the National Commission on Accrediting (43, pp. 27-28).

In line with this discussion is the fact that the American Association For Health, Physical Education, and Recreation has promoted and sponsored a continuous program for professional improvement over the years. A recent effort of the Association has been the organization and promotion of national, district, state and local conferences or workshops on professional preparation.

The Oregon Association For Health, Physical Education and Recreation inaugurated a workshop to establish standards for the professional preparation of physical education teachers in the State of Oregon. This workshop was held at the University of Oregon Campus in the summer of 1951. The original Committee on Standards
and Accrediting through its two years of study charted the way and gathered the materials which made it possible to complete the project in the workshop (46).

In November, 1951, a summary report of tentative standards was presented at the annual state convention of the OAHPER. In the early months of 1952 the report of the committee, Teacher Education Standards in Physical Education, was published. This manual is an outstanding effort to improve the professional preparation programs in the State of Oregon.

The above discussion presents some of the ineffective attempts to improve professional preparation in physical education. Attention is called to some of the factors that have rendered these attempts ineffective. Also a review has been made of recent attempts that seem to hold much promise of professional improvement. An interpretation of attempts to up-grade the profession discloses the more apparent problems faced by physical education today.

Summary

This brief review has attempted to select phases and features from the history of physical education which have been instrumental in evolving programs of professional preparation as they exist today.
The discussion of the rise of professional preparation and the early programs offered by institutions preparing teachers of physical education, acknowledges the youth of the profession and focuses attention on the rapid growth and ambitious expansion of the field. The discussion of influential events reveals the change from early program emphasis on individual hygiene and systems of gymnastics and calisthenics to present day programs characterized by diversified activities and methods devoted to individual development in relation to his society. The discussion of attempts to improve the profession highlights past and present problems in the field and has noticed recent developments that suggest possible abatement of some of these conditions.
CHAPTER III
THE CRITERIA

The scope of physical education has grown in the past twenty-five years. The previous chapter noted that the profession of physical education expanded rapidly following World War I. Public school programs, institutions offering professional preparation, requirements for certification, and variations in activities have increased. Institutions of higher education have conducted investigations and studies to determine teacher needs and to establish a basis for curriculum revisions and additions. Numerous other studies have been conducted by professional organizations, committees, and individuals to determine what the scope of physical education should be.

The principle emerged that school physical education includes a broad range of physical activities. The recognized parts of school physical education are:

1) Instructional - organized class instruction programs for all students.

2) Interscholastic - organized interschool athletic programs.

3) Recreational - organized intramural activities and programs for the whole school.

4) Adaptive - corrective or remedial programs designed to meet individual needs.
This classification is not to be interpreted as standard, although existing deviations seldom encompass programs which avert classification under these headings.

While authorities generally agree on the scope of school physical education, wide differences exist in programs of professional preparation throughout the country. Professional preparation at some institutions is most exacting, while at other institutions it appears quite lax. Institutions preparing physical education teachers place varying emphasis in their training. A curriculum may stress or omit certain phases of physical education, or a unique feature of one program may be stressed at the expense of parts of the other program. The question of time allotment must be resolved by the individual institution according to the needs of its particular region. Evidence seems to indicate that some institutions have not resolved this question satisfactorily. The Jackson's Mill Conference offers the following with respect to this thought (37, p. 35):

".....Institutions of higher education have a responsibility for preparing competent teachers and leaders in health education, physical education, and recreation. Too frequently this principle has been violated by institutions not qualified to give adequate preparation in these areas."
Since experiences in health education, physical education and recreation exert a profound influence on the quality of our national life, the colleges and universities fulfill a social obligation to children, youth and adults when the education of teachers and leaders in these areas is of a superior quality.

A college or university should accept responsibility for the preparation of teachers and leaders only to the extent that it is able to discharge this responsibility effectively.

The question of what constitutes a competent teacher of physical education has been explored many times. The profession must be ever willing to discard past practices for the betterment of the program (68, p. 544). The problem for the profession has been to adopt a standard and put it into practice. A great deal of work has been done by individuals and groups in preparing the way for standards that would receive general acceptance. Basic recommendations and standards are now available for both undergraduate and graduate programs (35) (21).

The better colleges and universities will meet or surpass these recommendations of their own volition while other institutions must be forced to meet them through accreditation. Although many colleges have revised their practices and programs to conform to the
recommendations, others seem content to wait pending developments in accreditation (18, p.54).

The standards for undergraduate professional preparation outline general subject matter areas in which the profession has found the greatest agreement. The statements of the purpose clarify the position of the national conference on utilization of the resulting standards (37, p. 1):

It was the avowed purpose of the Conference not to serve as an accrediting agency or to suggest the machinery for accreditation. Further, in line with the principle of institutional autonomy, specific reference to course titles and credits is not made. It is hoped, however, that the material contained herein will be useful to educational institutions in the development and evaluation of their respective programs for the preparation of leaders and teachers.

Oregon institutions offering professional preparation for physical education have at their disposal a publication, Teacher Education Standards in Physical Education (48). This publication offers recommendations based on a study of the needs of the physical education teachers in the public schools of Oregon.

The criteria for professional preparation in physical education used therein have developed from the recommendations of the National Conference on Undergraduate Professional Preparation in Physical Education,
Health Education, and Recreation; the recommendations of the Oregon Association for Health, Physical Education and Recreation for professional preparation; the recommendations of the Holy Report, and the recommendations of students and leaders in the field.

**Development of Criteria**

The criteria were developed initially from the review of literature concerning the professional preparation of physical education teachers. The undergraduate professional programs of institutions selected at random provided an understanding of the general character of courses commonly being offered in colleges. The second step involved a review of the professional literature to become acquainted with the problems found in professional preparation of physical education teachers. The third step was a study of standards and recommendations brought forth by the previously mentioned national and state studies. The standards from these studies were regrouped under ten major headings and sub-headed according to related areas. This organization established the foundation for the fourth step, which was devoted to further refinement of the tentative headings. This
phase resulted in a number of revisions. The resulting criteria consisted of eight major headings each with several sub-divisions. The fifth step in developing the criteria recruited the counsel of the staff of the Department of Physical Education at Oregon State College. The tentative criteria were presented to the staff members. After the first meeting revision of the statements of criteria was placed at the disposal of individual staff members for study. The outgrowth of two meetings with the staff was the revision of several sub-areas of the criteria. The final revision established the following eight general areas of competency expected from physical education teachers: (1) physical education in society, (2) professional growth and development, (3) interscholastic athletics, (4) nature and conditions of learning through physical activity, (5) personal skill in activities, (6) teaching techniques, (7) evaluation in physical education, and (8) organization and administration.

**Physical Education in Society**

This area of competency appears in the general recommendation of the Jackson's Mill Conference (37, p. 20):
The professional student should develop a broad concept of the physical education program and the personal, social and professional demands made upon physical education teachers in their relationships with boys and girls, their parents, the school staff and members of the community.

The Oregon Association for Health, Physical Education and Recreation Teacher Education Standards in Physical Education discuss this competency in the outline of specific objectives of this area (46, p. 20):

- The area should provide the undergraduates with an understanding and workable knowledge of the purposes of physical education. Specific objectives are outlined as follows:
  - To present the historical sources and influences shaping physical education philosophy and objectives.
  - To provide an understanding of the relationship between the purpose of physical education and the overall educational aims.

The competent physical education teachers should understand the historical aspects of his profession. He should be capable of defining a broad concept of physical education. He should be able to interpret to others this broad concept and the unique contribution of physical education to the developing person (37, p. 20).
He should understand the contributions of physical education to the ideals of modern society. He should recognize these ideals as basic to democratic principles and apply these principles in the physical education program (37, p. 20). He should recognize as fundamental in these principles the following: consideration of the rights of others, cooperation with others, discovering and accepting one's own inadequacies, accepting individual differences without assignment of superiority or inferiority, solving problems by thinking rather than by resorting to emotional solutions or escapes, and assuming responsibilities inherent in democratic freedom, i.e., leadership and fellowship, respect for initiative and self-reliance, loyalty to group ideals and purposes, sharing equitably, respect for personality, and sportsmanship (24, p. 225).

He should understand the importance of physical education to national emergencies. He should recognize the importance of promoting the development of leadership, teamwork, and cooperative effort (64, pp. 10-16). He should recognize the important part wars have played in shaping the pattern of physical education, and appreciate the basis for program changes that come about during such periods (62, pp. 27-29). He should understand the relationship of physical education to specific problems in modern
society. Competency in this area demands that the prospective teacher should have a broad knowledge of the social processes and an understanding of the nature of modern society. He should understand the existence and implications of such specific social problems as increased leisure, increased life expectancy, specialization in industry, urbanization and decentralized family units. He should believe that physical education takes place in all phases of life and that all persons of all ages are participants in the program of physical education (62, p. 6). He should recognize the need for recreational leadership in the social satisfaction and adjustments to these problems of life (71, p. 50).

Regarding the recreational experiences that promote an understanding of the relationship of physical education to the specific problem is the following recommendation of the Jackson's Mill Conference (37, p. 22):

The physical education teacher carries responsibility with other teachers and with recreation leaders in the school and community for developing a broad and rewarding program of recreation for children and youth and for helping them select and develop interests and skills which can be resources for a more satisfying life.
Provision should be made through campus and community experiences for the student to:

1. Understand the meaning and importance of recreation in the development of personality and the maintenance of total health.
2. Grow in understandings of group processes stressing democratic relationships and the role of the leader in recreation.
3. Develop skills in varied activities for personal recreation and for leadership of others in activities commonly associated with programs of physical education.
4. Have some supervised experiences in recreation.
5. Understand the basic principles of recreation.

The Jackson's Mill Conference summarizes the importance of this area of competency in the following recommendation (37, p. 20):

The graduate of the professional curriculum should be competent to guide physical education activities as a means of developing an understanding of the structure and forces of society.

Professional Growth

The professional growth of the teacher of physical education is a phase of his preparation that must remain in continuous operation. The Jackson's Mill Conference has stated that it is important that the professional student develop (37, p. 17):
An understanding of the current varieties and types of vocational opportunities in the field.

A responsibility for self-evaluation and planning for self-improvement.

An appreciation for the personal-social skills involved in areas as: total fitness, appearance, manner, speech, voice, sensitivity to others, freedom from prejudice, social ease and resources for leisure.

An acceptance of standards of ethics established for physical education teachers.

An understanding of the various types of evaluation procedures by which everyone involved comes to understand the students personal and professional strengths and weaknesses and ways of planning to meet his needs.

An understanding of the need for collecting and assembling one's own professional and recreational library and teaching materials.

A recognition of the importance of further educational experiences in general education leading to personal and professional competence.

The Oregon Association for Health, Physical Education and Recreation Teacher Education Standards has included in the specific objectives of the area, "Principles and Practices," mention of the importance of professional background (46, p. 20):

To provide the undergraduate student with the information necessary to formulate a scientifically sound growth and development philosophy of physical education.

To provide an understanding of the ethical procedures fundamental to the work of the professional of physical education.
This chapter further recommends that "content" in this area include (46, p. 21-22):

- definition of terminology fundamental to physical education philosophy
- current philosophies of physical education
- a functional philosophy of physical education
- the purpose of physical education
- interpretation of physical education
- professional ethics, professional organizations and publications.

This study also recommends in the objectives of "Class Techniques, Methods, and Materials," that the area include acquiring a knowledge and understanding of (46, p. 23):

"The personal and professional qualifications of a physical education teacher." The interpretation of these recommendations and the recommendations of other studies indicate specific qualifications and competencies. He strives for continuous development of those characteristics which constitute a desirable personality for teaching. Included herein are the following: sincere interest in other people, energy and enthusiasm for life, sense of humor, respect for personality, social understanding and behavior, pleasing physical appearance, pleasing manners, effective use of language, and intelligence in everyday activities (11, pp. 131-45).

The physical education teacher will have definite responsibilities in the community in which he teaches.
He must be willing to function as a citizen as well as a teacher, and be a part of the community through interests in non-school activities and functions. This responsibility relates not only to the public he meets, but also to his profession, to his colleagues, to his school, and to the public. He must be able to act with confidence, serve on policy-making committees, and take an active part in the life of the community (62, p. 35).

The professional development of the physical education teacher must be continuous and be characterized by a desire to keep abreast of existing problems in the field (15, p. 65). The pre-service program should promote this desire for continuous professional development in the post-service life of the teacher. The acceptance of this responsibility will mean an active part in in-service training programs, work-shops, and related projects, professional courses and work, and current professional publications and books (29, pp. 135-141).

The professional student's interest and participation in professional organizations is a part of his acceptance of the responsibility to strive toward continuous self-improvement. The teacher in the physical education field should keep himself up to date by maintaining membership in professional organizations. He
should supplement membership with regular attendance at professional meetings, and should be a regular subscriber to one or more professional magazines (27, p. 52).

Evidence of the need for emphasis on the importance of association with professional organizations was presented by Martinson in his study (31, p. 81):

> Membership in professional organizations and subscription to professional publications indicates a weakness in the attitude of secondary school teachers of physical education in Oregon toward professional growth.

Included as a feature of the student's professional growth should be an understanding of the implications of the major problems to be found in physical education in the schools. The student should recognize and understand these problems so that he will be better able to alleviate problems encountered on the job. The basic problems are centered in the following areas (48, pp. 45-47) (27, pp. 14-16)

1. Standards for physical education credit.
2. Adequate facilities, equipment and supplies.
3. Qualified supervisory services for physical education.
4. Basic physical education preparation for elementary school teachers.
5. Physical education manuals and publications prepared by the State Department of Education.
Balanced programs of varied activities.

Tests and measurements for improvement of instruction.

The professional growth of the physical education teacher should embody an understanding of the importance of a professional code of ethics, Ziegler notes (76, p. 147):

Since 1927, efforts have been made to encourage members of the field to become truly professional. A committee on professional ethics published a list of items in 1932 by which the physical educator could guide his professional conduct. Teaching has unfortunately not yet become a life-career service, but indications point definitely in that direction. The professionalization of physical education teachers has been indicated by the extent of their organization into various professional groups, but there is still great room for improvement in order to bring physical education up to the level of many other professions.

The teacher's responsibilities cannot be exactly determined in advance of graduation; therefore, it is expected that his undergraduate preparation should incorporate the importance of professional growth. It is fully expected that he will make use of graduate work and in-service education to attain greater proficiency in those activities which actually comprise his teaching responsibilities (3, p. 185).
Interscholastic Athletic Program

Interscholastic athletics constitutes an important phase of physical education, and as such it demands attention in the undergraduate preparation of the physical educator. It has been pointed out that many school administrators are selecting coaches on the basis of coaching ability and on their aptitude to teach other academic subjects. This practice, in many instances, removes the coach from other phases of the physical education program and in so doing presents the question of just what preparation should the coach receive to develop the competencies demanded of him in the field? The athletic coach should be, first of all, a competent physical education teacher. He should complete the preparation program required of all good physical education teachers.

Many graduates begin as physical education teachers with coaching duties. The Jackson's Mill Conference makes only two specific recommendations relative to interscholastic athletics (37, p. 22):

The physical educator should understand the administrative details which are required for the conduct of a broad program of physical education. He should therefore have:.....Knowledge of legal liabilities and insurance coverage relating to the physical education and
athletic programs.

...Competence in organizing and managing intramural and interscholastic athletic programs in accordance with the regulations of local, state and national organizations.

The Oregon Association for Health, Physical Education and Recreation Teacher Education Standards are more specific and include in the content of the area "Organization and Administration," the following material. (46, p. 74):

Interscholastic sports - boys and girls
(a) Purpose
(b) Management procedures - managers, parental permission, schedules, practice periods, contracts, officials, publicity, tickets, travel, awards, records, conducting games, meets and play days.

Competency in the area of interscholastic athletics demands qualifications and understanding in a number of sub-areas. The phase of this area that claims primary attention is that the professional student develops an acceptable viewpoint of the place of interscholastic athletics in education. This viewpoint embodies an understanding of the great potentialities for developing in youth desirable knowledge, skills, habits, and attitudes and recognizes that under proper guidance and leadership, athletics are a powerful educational force, particularly in the development of social and moral,
as well as physical, qualities (70, pp. 188-189). He should similarly accept the viewpoint that when athletics cease to have educational value they should cease to be a school function (14, p. 9).

The physical educator should be skilled in the use of the best techniques which may be employed in coaching. He must be familiar with and understand the techniques for squad and team selection, for planning of practice periods, for conditioning and training students, for handling and guiding of students and for organizing the teaching of sports (28, pp. 1-23).

The physical educator should be prepared to give advanced instruction in those sports included in the interscholastic athletic program. Martin (30, p. 107) has stated: "The preparation necessary to equip any teacher to perform his task well depends upon the task and the conditions under which it is to be performed." The sports that are included in Oregon interscholastic athletic programs include: basketball, baseball, football, golf, swimming, tennis, track and field, and wrestling. Other sports are included by some secondary schools but the above listing appears most frequently in Oregon schools.
The assignment given the physical education teacher may include any of the sports mentioned, and in view of this possibility, his preparation should equip him to perform the task so assigned.

The professional student should understand the responsibility of the state for physical education and athletics. Incorporated in this area is an understanding of state laws and regulations relating to physical education and athletics and an understanding of the operation of state athletic associations (46, p. 72).

An important aspect in this area is the student's ability to establish acceptable policies for inter-scholastic athletics. Features of the athletic program demanding attention include the following (14, pp. 147-148):

**General program policies:** pertaining to the number of sports, type and length of schedules, methods of financing the program, athletic insurance and injuries, and the delegation of authority to coaches or faculty managers in matters pertaining to contracts, officials, records, and reports.

**Eligibility policies:** conformance to the state code and school regulations for age, scholarship, parental consent, and physical examinations.

Policies for facilities: Indoor facilities including courts, training room, storage and drying rooms, locker room and shower areas, and additional activity rooms. Outdoor facilities including turfed areas, courts, and field areas.

Policies for equipment: Selection and purchase, issue and records, cleaning, repair and storage.

Policies for student managers: Selection, duties and responsibilities, and awards.

Policies for athletic awards: Basis and methods governing granting of awards.

Nature and Conditions of Learning Through Physical Activity

This area of competence is regarded as highly important by those bodies concerned with standards for professional preparation. Authorities agree that the professional preparation in physical education should be concerned with the students' understanding of and ability to use scientific information (16, p. 744) (29, p. 141) (45, p. 470). The Jackson's Mill Conference
recommends that the graduates of the professional curriculum should be competent to guide (37, p. 19):

...The selection and learning of physical education activities in accordance with age, sex, and individual needs and interests.

...Learning of neuro-muscular skill as an experience in understanding the body as a mechanism for movement and as an instrument for expression.

Other recommendations by this conference are singled out of the various discussions to further emphasize the importance of this area (37, pp. 20-21):

...experiences should be provided for students to acquire:...an understanding of the application of the basic principles of mechanics to movement experienced in activities....

...an understanding of the relationship between ability in the activity and the problems of the learner....

...each student should...understand individual differences in children and youth which are especially significant to the learning of physical education activities and be able to adjust the teaching to meet these differences.

...have a concern for the health and safety of children and youth and the ability to apply safety measures in teaching situations.

The Oregon Association of Health, Physical Education and Recreation Teacher Education Standards count as one of the objectives of the area "Class Techniques, Methods,
and Materials" (46, p. 23) "... a knowledge and understanding of ... the basic theories of motor learning."
The content that corresponds to this objective comprehends the following material (46, p. 25):

The nature of motor learning
The definition of learning
The theories of learning
The principles of motor learning
The principles of drill

Authorities generally agree that every educator should know the nature of the individual and how he learns. Common agreement is also reached in the recommendation that students should master the basic sciences in the light of the needs of their chosen profession (67, p. 138). The physical education teachers' field is founded in motor activities, and this foundation implies that he should understand the development of motor skill, the psychology of this development, and methods and techniques to achieve economy and efficiency in motor learning. He should understand the role of instruction, the importance of motivation, and the effects of length and distribution of practice periods. (45, pp. 469-471).

The professional student should develop an understanding of the relationship of various activities to student well-being. The good teacher will know the effects of various practices upon student strength and energy, and the devitalizing influence of certain forces
which play upon human biological materials (73, p. 196).

The professional student should understand the mechanics of efficient body movement. The importance of learning efficient mechanics of posture, walking, running, jumping, games and sports, occupational activities and activities of everyday life should receive attention in all phases of motor learning (46, pp. 76-77).

The implications of individual differences to learning should be recognized and understood by the professional student. He should be able to modify the teaching process in accordance with individual differences that will be present at every grade level. Individual differences in intelligence, growth and development, strength, endurance, coordination, body build types, and physical fitness present implications that are especially significant to the learning of physical education activities (37, p. 21).

**Personal Skill in Physical Education**

This area stipulates the unique competencies for the teacher of physical education. The Jackson's Mill Conference recommends the following (37, pp. 20-21):
In the preparation of teachers of physical education, experiences should be provided for students to acquire:

- a wide variety of personal skills in physical education activities and acceptance of his own responsibility in acquiring these.

In order to understand the problems involved in the learning process the students should acquire skill in a variety of activities appropriate to the child's interests and needs. These activities generally include: basic motor skills, adaptive physical education activities, aquatics, body mechanics, combative activities, dance, gymnastics, individual and dual team sports.

In addition to the types of activities mentioned above, the traditional professional curriculum lists activities such as: archery, baseball, basketball, corrective physical education, football, field hockey, swimming and life saving, stunts and tumbling, track and field, volleyball, wrestling and elementary school physical activities.

The Oregon Association of Health, Physical Education Standards devote forty-three pages to a delineation of activity skills in the physical education program. The recommendations included in the discussion of the different activities are concerned with the personal skills of the physical education teacher (46, pp. 27-70).

In aquatic activities the student should be competent in swimming, diving, and life-saving (46, p. 27). Personal skill in apparatus, tumbling and stunts
consists of activities which are a combination of fundamental body movements into specialized skills, and includes the specialized skills of floor and mat activities and all the apparatus peculiar to this type of activity (46, p. 29). Personal skill in fundamentals of body movement demands an understanding of the mechanical principles basic to efficient use of the body and an understanding of the purposes of exercise (46, p. 37). Personal skill in conditioning exercises involves the ability to perform the contests, games, relays, drills and combatives that constitute this area plus a knowledge of all common starting positions for these activities (46, p. 23). Personal skill in recreational games and individual sports embraces the following activities: archery, badminton, boxing, golf, handball, tennis, wrestling, shuffle board, table tennis, paddle tennis, peteca, deck tennis, horseshoes, croquet, and aerial darts (46, pp. 42-57). Personal skill in the rhythmic area includes the ability to perform fundamental dance movements, to utilize the forces of movement, and to demonstrate a representative sampling of dance patterns (46, p. 58). Personal skill in team sports asserts that the professional student develop (46, p. 61),..."ability
to perform and understand specific skills." The activities that comprise this area are touch football, volleyball, softball, speedball and soccer, and basketball (46, pp. 62-63). The area of track and field states that the prospective teacher have some degree of proficiency in the following skills (46, p. 70):

1. Run - starting position, stride, finish.
2. Sprint - starting position, stride, finish.
3. Hurdles - starting position, stride, finish.
4. Weights - crossing the ring, release, follow through.
5. Jumping events - approach, take-off, execution, landing.
6. Relays - starts, baton exchange.

It is further recommended that the prospective teacher be given skill tests to determine personal skill in each activity listed above.

General recommendations are found in the statements by Scott (57, p. 102):

....The prospective teacher should specialize in and excel in as many sports as possible and he should be able to perform better than average in a great many motor activities. He must also be conversant with the whole field of organized motor skills.

....Since motor activity is the unique contribution of physical education to general education, we must see that professional students possess unusual skills in this field.
Teaching Techniques

The area of teaching techniques takes into account the teaching methods and procedures common to all teaching as well as the application of methods peculiar to the teaching of physical education activities. The following recommendations of the Jackson's Mill Conference constitute the foundation for statements of criteria in this area (37, pp. 19-21):

.....The graduates of the professional curriculum should be competent to guide .....the selection and learning of physical education activities in accordance with age, sex, and individual needs and interests. .....The primary direction of instruction be centered in the prospective teachers growth in the following.....

.....A concern for boys and girls as individuals and in their interactive relationships as the central reference for planning and conducting both class and extra-class experiences in physical education.

.....Competence in defining democratic principles and in applying these principles in the physical education program.

.....In the preparation of teachers of physical education, experiences should be provided for students to acquire .....skill in teaching physical education activities.

.....An understanding of the relationship between ability in the activity and problems of the learner.

.....Each student should.....Be able to adopt methods of instruction to different teaching situations as may be determined by available facilities and resources......
Become skillful in the use of student leaders.
There should be provision for the students' continuous use of techniques of establishing a rapport between student and teacher.

The Oregon Association of Health, Physical Education and Recreation Teacher Education Standards states the following (46, p. 23):

The professional student should acquire a knowledge and understanding of:

- The basic general principles for conducting physical education classes.
- The use of specific methods and techniques in conducting physical education classes.

The content recommended for this area includes the following topics: nature of teaching, relationship between aims and objectives, nature of motor learning, organization, preparation, class control and teaching techniques (46, pp. 25-26). The professional student should acquire the ability to establish pupil-teacher understanding in learning situations. Competence should be founded in an understanding of techniques of establishing a rapport between student and teacher (37, p. 21).

He should be skilled in using various methods for effective physical education instruction in different teaching situations. Regarding teaching methods in physical education, La Porte (27, p. 52) writes:

Some teachers favor the whole method of teaching, others the part
method, but probably the most successful teachers combine selected elements from each method. Naturally, it is essential that the learner see the total picture as a complete whole. On the other hand, he must know the individual parts that go to build the structure, and if he is slow in developing neuro-muscular skills, he may need a great deal of painstaking instruction, step by step, through the various stages.

From the practical standpoint, the instruction procedure should be adopted to the individual needs of the child, using a wholesome and natural approach, and combining the methods that seem to assure the most rapid learning with the greatest degree of pleasure and satisfaction.

The physical education teacher should be capable of effective class management and control. He should have the ability to recognize the causes of disciplinary problems, he should understand the value of self-discipline, effective techniques of class control, and the principles of class discipline (55, pp. 87-113). The physical education teacher is faced with the task of caring for the physical welfare of every student in school from the "dub" lacking in native ability to the skilled individual with natural ability to perform with ease. If these conditions are to be met successfully, he must be able to organize physical education instruction in conformance with the ability levels of students (19, p. 511).
Competency in teaching techniques should be found, in part, in the professional student's ability to assist students in the development of social skills through participation in physical education activities (27, pp. 54-55). Regarding the development of social skills through student leaders in physical education, Voltmer and Esslinger (70, p. 277) note:

.....If the schools are to prepare students to live enriched lives during both school life and adult life, many opportunities must be provided for practice of the elements of successful living. One of these elements, certainly, is leadership, around which can be developed co-operation, loyalty, sociability, and many other desirable social qualities. Few, if any, other school subjects provide the number of leadership opportunities that are to be found in physical education. The instructor who does not take advantage of the outstanding opportunities offered is failing to make use of the possibilities at his command; he is not putting to good use the talents that have been intrusted to him by the community in which he teaches.

The professional student should understand that the development of social skills through physical education is dependent on "how" classes are conducted and he should be competent to provide opportunities and experiences that promote the development of: self-reliance, self-direction, self-responsibility, respect for personality, group planning and cooperation, desirable boy and girl
relations, and desirable school, community, and family relations (24, pp. 224-225).

The problems and details involved in conducting physical education classes require the professional student to be skilled in the routines of physical education class operation (70, p. 287). In the program of professional preparation, experiences should be provided for students to acquire: the ability to develop and present units and lesson plans, an understanding of the importance of progression in course content, an understanding of methods of taking role, an understanding of policies and procedures for excuses and substitutes, an understanding of policies and procedures for absences and tardiness, competence in arrangement of materials, knowledge concerning standards for dress and inspection, an understanding of policies and procedures for marks and grades, and an understanding of techniques of keeping and utilizing physical education records (70, pp. 287-302).

The professional student should acquire an understanding of the place of teaching techniques for physical education. Proficiency in this area involves a knowledge of separate techniques and skill in selection and use of the following: demonstrations, written
materials, discussions, audio-visual aids, oral explanation, practice, and competition (27, pp. 52-53).

In the study by La Porte, the following observation was made (27, p. 53):

...Some of the successful techniques now in use involve: (1) orienting beginners by having them first observe movies or an actual game in progress, followed by informal participation in the game itself; (2) using simplified games as learning units in place of drill on activity fundamentals; (3) utilizing motion pictures of activities for analysis of fundamentals; (4) having the instructor serve as referee, in which capacity he can give incidental coaching and direction as the game progresses.

**Evaluation in Physical Education**

The value and necessity of evaluation in physical education has been a recognized theme of the profession for many years. The programs of evaluation have largely reflected the prevailing philosophical attitudes toward the function that physical education should fulfill (9, p. 6).

In the discussion and recommendations regarding evaluation, the Jackson's Mill Conference discloses present day attitudes in this way (37, p. 21):

...In the professional program of physical education, it is important that the student understand the overall concepts of appraising both his own experiences and the effectiveness with
which he helps boys and girls to set and make progress toward educationally acceptable goals. Evaluation, then, is the process of continuous appraisal of the means that are employed in the attainment of these goals. This appraisal comes as a result of cooperative student-teacher relationships in which objective and subjective measuring techniques are employed.

The end product of this process should be pointed toward a redirection, a replanning and a motivation for improved personal and professional goals. There should be provision for the student's continuous use of these procedures throughout his laboratory experiences in the leadership of children and youth and in his student teaching.

Proficiency in evaluation procedures involves:

1. Ways of discovering the attitudes, interests, aptitudes and abilities of children and youth and the behaviors through which these are revealed.

2. Knowledge of and skill in using the tools of objective measurement in the various aspects of the program.

3. Interpretation and use of the complete cumulative record including health, physical achievement and other guidance data.

4. Techniques of establishing a rapport between student and teacher so that the fullest meaning of planning and replanning may be achieved.

5. Knowledge concerning the degree to which physical education plays its part in school and community living.
The Oregon Association of Health, Physical Education and Recreation Teacher Education Standards, in recognition of the importance of evaluation, recommends the following (46, pp. 82-83):

The area of evaluation concerns procedures usable for determining the potentialities of the student, for motivating the student to improve himself, and for measuring progress that has been made in a given time. An evaluation of the potentialities of the student serves to determine the motor educability of the student (i.e., is the student a fast or a slow learner of motor activities?), to indicate the activities in which the student is likely to be successful (i.e., does the student have enough speed to be successful in activities involving speed, or should he elect activities in which speed is not a primary prerequisite to successful performance?), and to provide a basis for indicating the achievement of the student relative to his own motor capacity.

Standards of performance provide a means for the student to compare his performance with the average performance of other students of the same size and maturity.

An evaluation of the progress that has been made in a given time serves as an indication to the student of the progress that he has made and as an indication to the instructor of the progress that has been made in the attainment of the objectives of the program.

The minimum essentials of the program of physical education stated in the Oregon School Law of 1945 are as follows:
The physical education program shall be so planned as to develop as minimum essentials, normal symmetrical growth, organic vigor, strength and endurance, good posture, skills of bodily movement and coordination, and high levels of such qualities as agility, strength, speed, power, endurance, flexibility, balance, relaxation and such other physical qualities as the State Superintendent of Public Instruction may deem important.

In addition to procedures for the evaluation of the objectives stated above, there should be procedures for the evaluation of objectives listed in the preceding section, (this section being concerned with the area of Basic Sciences) with methods for the administration of these devices and for the interpretation of the results gained thereby, and with criteria for the evaluation of other devices of measurement.

The corresponding content is divided into the following main topics: history of evaluation, criteria for the selection of devices, policies regarding the administration of devices of evaluation, interpretation and utilization of the results and minimum evaluative procedures (46, pp. 83-85). The importance of evaluative procedures is discussed by Bovard as follows (8, pp. 6-7):

"...the primary purpose of evaluation is the improvement of instruction. Only through a careful analysis of the degree to which desired goals are reached can the learning experiences provided be properly modified and fortified. Only by the accumulation of accurate information about the pupil..."
can contributions be made to his individual needs, on the basis of his difficulties, his strengths and his weaknesses. Evaluation seems absolutely essential to the improvement of teaching techniques and conditions of learning.

Either directly or indirectly the instructional program may be improved through the use of evaluative procedures for (1) appraisal of pupil progress, (2) diagnosis and guidance, (3) classification of pupils, (4) motivation, (5) instructional methodology, (6) appraisal of instructors, methods and materials, and (7) research.

A general interpretation of recommendations relative to the area of evaluation indicates that the professional student should: be skilled in the use of evaluation techniques, understand the need of evaluation to determine whether students accomplish the purposes of physical education and education, understand the basic principles for evaluation of physical education instruction, understand the criteria for the selection of appropriate evaluation techniques, understand administrative policies regarding evaluation, and understand how to use the results of evaluation for improving instruction.

Organization and Administration

The problems in the organization and administration of physical education establish the basis for competencies that should be stressed in the preparation of
the physical education teacher. Regarding the competencies desired in this area, The Jackson's Mill Conference recommends as follows (37, p. 22):

The physical educator should understand the administrative details which are required for the conduct of a broad program of physical education. He should, therefore, have:

1. Competency in giving immediate supervision to the care and maintenance of physical education facilities, equipment and supplies, including gymnasium, dressing and shower rooms, swimming pools and outdoor play areas.

2. Knowledge of legal liabilities and insurance coverage relating to the physical education and athletic programs.

3. Concern for the safety of the participants in the total physical education program and competence in maintaining a safe and healthful environment for them.

4. Competence in organizing and managing intramural and interscholastic athletic programs in accordance with the regulations of local, state, and national organizations.

5. Competence in formulating and implementing departmental policies and regulations in such matters as: personal relationships, budgets, the purchase and care of equipment and supplies and the maintenance and interpretation of office records.

6. Competence in interpreting physical education to the school and community.
The Oregon Association of Health, Physical Education and Recreation Teacher Education Standards discuss the area "Organization and Administration of Physical Education as follows (46, pp. 70-71):

.....Upon completion of the study each professional student should attain sufficient understanding of organization and administration so that he:

1. Understands the nature and function of physical education and administration.

2. Realizes the pattern of organization for physical education and athletics.

3. Uses the best criteria as a guide in the development of suitable physical education facilities, equipment and supplies.

4. Understands the importance of administrative planning.

5. Acquires a basic understanding of office management.

6. Understands the importance of stated administrative policies and procedures in the operation of physical education programs.

The topics of the content recommended for this area are: nature and function of administration, state responsibility for physical education and athletics, administration of personnel, safety precautions of physical education and athletics, administration of equipment and supplies, planning for physical education facilities, financing physical education and athletics, physical
education office, techniques for selling the physical education program, development of program, preparation of physical education programs, factors to be considered in the program construction, construction of programs, intramural sports and school recreation clubs (46, pp. 72-74). La Porte expresses his viewpoint on the administrative duties of teachers in this way (27, p. 52):

Contrary to the more or less popular opinion among many who are uninformed on the subject, physical education teaching involves very many heavy responsibilities. It includes innumerable problems of organization and administration of buildings, equipment, and program, safety and health service, intramural sports, interschool athletics, community recreation, and extracurricular activities, in addition to the functions of teaching. In the case of those teaching in smaller schools, usually one teacher must be responsible for all these administrative duties.

The criteria organized for the area of organization and administration evolves from the pattern of the above recommendations. The basic outline of criteria proposes that the professional student should: recognize the importance of effective administrative planning, realize the importance of a constructive public relations program to physical education, achieve a basic understanding of office management, comprehend the nature of administrative authority and responsibility, understand suitable personnel practices for teaching and coaching,
be capable of organizing a program of intramural athletics, understand the problems concerning facilities, equipment and supplies required for physical education, and understand the features of Oregon Health and Physical Education Laws.

Organization of Criteria

The two sources most widely used as the foundation for the criteria of this study present distinct organizational patterns for discussion of the main topic areas. The Jackson's Mill Conference organizes Chapter VIII, Professional Preparation in Physical Education," under the following headings (37, p. 18):

' Orientation, Guidance and Personal-Social Development; Sciences Basic to the Understanding of Children and Youth; Principles and Practices in the Physical Education Program; Guided Laboratory and Field Leadership Experiences with Children and Youth; General Administrative Considerations'

The conference does not make recommendations for specific courses, credits, or term hours, but rather defines the meaning of recommended "Guiding principles" in the following manner (37, p. 18):
The exact amount of time required to produce the competent teacher and cultured citizen will vary with individuals and with institutions. While a general curriculum plan is essential, competency in achieving the objectives of the curriculum should be the criterion for graduation rather than a set time or course requirement. In formulating a general curriculum plan, the following statements may serve as a guide:

The organization of Chapter II, "Areas of Instruction for Secondary Teacher Education Programs," of the Oregon Association of Health, Physical Education and Recreation Teacher Education Standards adheres to the following pattern (46, p. 19):

Principles and Practices
Methods
Activity Skills
Organization and Administration
Basic Sciences
Evaluation
Supervised Teaching

The meaning of the organized material is made evident by the following explanation (46, pp. X-XI):

.....It must be emphasized that the content of the instructional materials is organized by "Areas of Competency" and not as courses. Due to the fact that the institutions conducting teacher education programs have different organizational plans of operation, the committees felt that the manner in which the areas of competency were to be organized into courses should be left to the discretion of the various institutions. These institutions will undoubtedly integrate certain phases of this teacher education program in other departments than the physical education department.
The committee membership emphasized the point - "this is what the prospective teacher of physical education should know.... how it is executed is dependent on the organizational pattern of the institution concerned".

The organization of this criteria includes "areas" from both studies and follows a pattern that expresses important features commonly recommended by the various sources. Following the thinking of the above two studies, this criteria is devoted to "competencies" rather than course requirements or specific courses. In the following outline of criteria, the various sub-divisions of the main topics are further redivided to identify and give specific meaning to the statements of desired competence.

I. Physical Education in Society

1. He understands the place of physical education in earlier societies.
   a. The role of physical education in the history of civilization
   b. The historical sources and influences shaping physical education philosophy and objectives
   c. The foundations of physical education as related to:
      (1) A scientifically sound growth and development philosophy of physical education
      (2) The purpose of physical education and the overall educational aims
      (3) Professional achievement and progress
      (4) Objectives of present day physical education

2. He understands the contributions of physical education to the ideals of modern society
a. Consideration of the rights of others
b. Cooperation with others
c. Discovering and accepting one's own inadequacies
d. Leadership and followership
e. Respect for initiative and self-reliance
f. Loyalty to group ideals and purposes
g. Sharing equitably
h. Respect for personality
i. Sportsmanship

3. He understands the importance of physical education to national emergencies.
   a. The basis and implications of program changes
   b. The major findings and program deficiencies brought out during emergencies
   c. The increased emphasis placed on physical fitness
   d. The development of leadership qualities, team work and cooperative effort

4. He understands the relationship of physical education to specific problems in modern society
   a. Increased leisure
   b. Increased life expectancy
   c. Specialization in industry
   d. Urbanization
   e. Decentralized family unit

II. Professional Growth

1. He strives for continuous development of those characteristics which constitute a desirable personality for teaching.
   a. Sincere interest in other people
   b. Energy and enthusiasm for life
   c. Sense of humor
   d. Respect for personality
   e. Social understanding and behavior
f. Pleasing physical appearance  
g. Pleasing manners  
h. Effective use of language  
i. Intelligence in everyday activities - common sense  

2. He recognizes the importance of active participation in community affairs  
   a. Professional conduct  
   b. Knowledge of community living  
   c. Public relations in interpreting physical education  
   d. Role of citizenship  

3. He accepts the responsibility for continuous professional development  
   a. Self-evaluation and planning for self-improvement  
   b. Desire to keep abreast of existing problems  
   c. Recognition of the role of in-service programs, workshops, and related projects  

4. He understands the importance of identification with professional organizations  
   a. Professional identification  
   b. Provisions for professional growth  
   c. Opportunity for contribution to the profession  

5. He understands the importance of a professional code of ethics  
   a. Guidance of professional conduct  
   b. Identification as professional person  
   c. Criteria for professional responsibilities  

6. He understands the implications of the important problems to be found in physical education in schools  
   a. Need for balanced programs of varied activities
b. Standards for physical education credit lacking
c. Inadequate facilities, equipment and supplies
d. Qualified supervisory services lacking
e. Need of basic preparation for elementary teachers
f. Need of tests and measurements for the improvement of instruction

III. Interscholastic Athletic Program

1. He develops an acceptable viewpoint of the place of interscholastic athletics in education
   a. Athletics are an integral part of the secondary school program and should receive financial support from tax funds on the same basis as other recognized parts of the total educational program
   b. Athletics are for the benefit of all youth - the aim is maximum participation
   c. Athletics should be conducted under rules which provide for equitable competition, good sportsmanship, fair play, sound health and safety
   d. Good citizenship should result from all coaching and from all interschool competition

2. He is skilled in the use of the best techniques which may be employed in coaching
   a. Organization of instruction
   b. Conditioning and training program
   c. Practice periods
   d. Squad meetings
   e. Selection of team personnel

3. He is prepared to give advanced instruction in those sports included in the interscholastic athletic program
a. Basketball  
b. Baseball  
c. Football  
d. Golf  
e. Swimming  
f. Tennis  
g. Track and field  
h. Wrestling  

4. He understands the operation of state athletic associations in athletics  

a. Eligibility regulations  
b. Regulations for the conduct of contests  
c. Interpretations of playing rules  
d. Athletic accident or insurance plans  
e. Registration and classification of athletic officials  
f. Publications  
g. Conducting tournaments and meets  
h. Establishment of athletic standards  
i. Operation of the Oregon School Activities Association  

5. He is capable of establishing acceptable policies for interscholastic athletics  

a. Program policies  
   (1) Number of sports  
   (2) Justifiable schedules  
   (3) Methods in program finance  
   (4) Delegation of authority for contracts, officials, and reports  
   (5) Eligibility regulations  
b. Contest management  
   (1) Pre-contest preparation  
   (2) Post-contest responsibilities  
c. Facilities  
   (1) Training room  
   (2) Courts (indoor and outdoor)  
   (3) Storage and drying room  
   (4) Locker room and shower areas  
   (5) Turfed area  
   (6) Track and field facilities
d. Equipment
   (1) Purchase
   (2) Issue and records
   (3) Cleaning and repair
   (4) Storage

e. Student managers
   (1) Selection - qualifications
   (2) Duties and responsibilities

f. Awards
   (1) Policies
   (2) Method of granting awards
   (3) Basis for granting awards

IV. Nature and Conditions of Learning Through Physical Activity

1. He understands the development of motor skill
   a. A process of reducing purposive action to sensorimotor action
      (1) Decline of perception
      (2) Elimination of irrelevant responses
      (3) Decrease in tensions
      (4) Stabilization and consolidation of total performance
      (5) Evidence of less fatigue
      (6) Increase in speed and accuracy of performance
      (7) Task drops out and the control of action is taken over by habit

2. He understands how to achieve economy and efficiency in motor learning
   a. Importance of motivation
      (1) Definite goal
      (2) Desire to learn
   b. Role of instruction
      (1) Knowledge of what to do
      (2) Knowledge of how to perform
      (3) Positive directions
   c. Role of practice
      (1) Length of periods
      (2) Distribution of periods
      (3) Conditions under which practice should be conducted
3. He understands the relationship of various activities to student well-being
   a. Fatigue
   b. Safety
   c. General health

4. He understands the mechanics of efficient body movement
   a. Postures
   b. Fundamental skills
   c. Game and sport skills
   d. Occupational skills
   e. General skills in daily living

5. He understands the implications of individual differences to learning
   a. Intelligence
   b. Growth and development
   c. Strength
   d. Endurance
   e. Coordination
   f. Body-build (types)
   g. Physical fitness

V. Personal Skill in Physical Education

1. He performs physical activities commonly found in the physical education program and achieves excellence in several
   a. A wide variety of personal skills in physical education activities
   b. Specialized skill in selected activities

2. He accepts the responsibility to excel in as many activities as possible
   a. Desire to broaden personal skills
   b. Desire to achieve proficiency in skills

3. He understands the fundamental skills of the activities which he will be called upon to teach
   a. Aquatics - swimming, diving, life saving
   b. Conditioning exercises - controlled activities for large muscle group, common starting positions, group organization
   c. Fundamentals of body movement
d. Recreational games - shuffleboard, table tennis, paddle tennis, deck tennis, horse shoes, croquet, aerial darts, and others

e. Individual and dual sports - archery, badminton, boxing, golf, handball, tennis, wrestling

f. Rhythms - folk dance, square dance, social dance

g. Team games - basketball, touch football, volleyball, softball, soccer, speedball, basketball

h. Track and field - sprints, runs, hurdles, weights, relays, jumping events

i. Tumbling and apparatus - floor and mat skills, single and group apparatus

VI. Teaching Techniques

1. He acquires the ability to establish pupil-teacher understanding in learning situations
   a. Exhibition of competence
   b. Understanding of pupil needs and interests
   c. Pupil-teacher planning
   d. Sincere interest in the individual pupil
   e. Opportunities for pupil initiative

2. He is skilled in using various methods for effective physical education instruction in different teaching situations
   a. Whole method
   b. Part method
   c. Combination of whole and part methods
   d. Others
      (1) Supervised study
      (2) Problem method
      (3) Project method
      (4) Individualized instruction

3. He is capable of effective class management and control
   a. Recognition of causes of disciplinary problems
   b. Understanding of the principles of class discipline
   c. Understanding of the value of self-discipline
   d. Understanding of techniques of class control
4. He organizes physical education in conformance with the ability levels of students
   a. Recognition of different performance levels of pupils
   b. Organized instruction to provide for students of:
      (1) Below average performance ability
      (2) Average performance ability
      (3) Superior performance ability

5. He is capable of assisting students in the development of social skills through participation in physical education activities
   a. Opportunities of students to develop leadership qualities
   b. Class opportunities and experiences that promote the development of:
      (1) Self-reliance
      (2) Self-direction
      (3) Self-responsibility
      (4) Respect for personality
      (5) Group planning and cooperation
      (6) Social consciousness
      (7) Boy and girl relations
      (8) School, community, and family relations

6. He is skilled in the routines of physical education class operation
   a. Ability to develop and present units and lesson plans
   b. Understanding of the principles of assignment
   c. Understanding of the importance of progression in course content
   d. Understanding of methods of taking roll
   e. Understanding of policies and procedures for excuses and substitutions
   f. Understanding of policies and procedures for absences and tardiness
   g. Understanding of standards for dress and inspection
   h. Understanding of policies and procedures for marks and grades
i. Competence in arrangement of materials
j. Understanding of techniques of keeping and utilizing physical education records

7. He understands the place of teaching techniques for physical education
   a. Demonstration
      (1) Instructor
      (2) Student
      (3) Outside groups
   b. Written materials
      (1) Notebooks
      (2) Study sheets
      (3) Student reports
      (4) Student progress charts
   c. Discussion
      (1) Class discussion
      (2) Individual reports
      (3) Panel discussions
   d. Audio-visual aids
      (1) Field trips
      (2) Models
      (3) Exhibits
      (4) Motion pictures
      (5) Still pictures
      (6) Radio and recordings
      (7) Charts and graphs
      (8) Blackboard and bulletin boards
   e. Oral explanation - lecture
   f. Practice
      (1) Individual
      (2) Group
   g. Competition
      (1) Individual
      (2) Group

VII. Evaluation in Physical Education

1. He is skilled in the use of evaluation techniques
   a. Circulatory - respiratory tests
   b. Anthropometric, posture, body mechanics, measurements
   c. Muscular strength, power and endurance tests
   d. Flexibility tests
e. Motor Fitness tests  
f. General Motor Skill tests  
g. Sports Skills test  
h. Knowledge and Understanding tests  
i. Attitudes and Appreciations tests

2. He understands the need for evaluation to determine whether students accomplish the purposes of physical education

a. Advancement toward aims and objectives sought  
b. Worth of program activities  
c. Value of methods and techniques of instruction  
d. Value of methods and procedures of supervision  
e. Effectiveness of administrative procedures  
f. Value of general program standards

3. He understands the basic principles for evaluation of physical education instruction

a. Evaluation involves every feature of the learning process  
b. Evaluation applies to all objectives sought  
c. Evaluation is continuous  
d. Evaluation involves every staff member  
e. All evaluation is not perfect  
f. Evaluation is indispensable

4. He understands the criteria for the selection of appropriate evaluation techniques

a. Validity  
b. Reliability  
c. Objectivity  
d. Economy in time and cost

5. He understands administrative policies regarding evaluation

a. Preparation of equipment  
b. Preparation of directions  
c. Preparation of forms for recording results  
d. Preparation of assistants
6. He understands how to use the results of evaluation for improving instruction
   a. Appraisal of pupil progress
   b. Diagnosis and guidance
   c. Classification of pupils
   d. Motivation
   e. Instructional methodology
   f. Appraisal of instructors, methods and materials
   g. Research

7. He understands the elements of statistics for interpretation and utilization of results
   a. Frequency distribution
   b. Measures of central tendency - mean, median, mode
   c. Measures of variability - range, quartile deviation, standard deviation
   d. Norms and standards
   e. Grading
      (1) Normal probability curve
      (2) Absolute basis
      (3) Relative basis
   f. Graphical representations
      (1) Frequency polygons and histograms
      (2) Bar graphs

VIII. Organization and Administration

1. He recognizes the importance of effective administrative planning
   a. An efficient and progressive program of physical education
      (1) Administrative policies and procedures
      (2) Established aims and objectives
      (3) Scope of curriculum
      (4) Program progression from elementary grades through senior high school
   b. A complete program of physical education
      (1) Organized class instruction
      (2) Adaptive activities
      (3) Intramural and recreational activities
      (4) Interscholastic athletics
2. He realizes the importance of a constructive public relations program to physical education
   a. Need for public relations in education
   b. Reliable public relations
   c. Techniques of public relations - information aids

3. He achieves a basic understanding of office management
   a. Forms, reports, and related materials
   b. Office routine - correspondence filing system, activity calendar
   c. Office personnel

4. He comprehends the nature of administrative authority and responsibility
   a. Function of administration
   b. Educational and administrative objectives
   c. Planning for administration - survey techniques, situation analysis
   d. Program construction
      (1) Utilization of community resources
      (2) Development of program
      (3) Preparation of physical education program
      (4) Factors to be considered in program construction
   e. Program finance and budget
   f. Time allotment
   g. Size of classes
   h. Teacher loads
   i. Classification for instruction
   j. Physical education credit and marking

5. He understands suitable personnel practices for teaching and coaching
   a. Staff qualifications
   b. In-service training
   c. Division of responsibilities
   d. Staff meetings
   e. Faculty recreation

6. He is capable of organizing a program of intramural athletics
a. Place in the program - policies and purpose
b. Program objectives
c. Units of competition
d. Program of activities
e. Eligibility
f. Point systems and awards
g. Program records

7. He understands the problems concerning facilities, equipment and supplies required for physical education
   a. Adequate indoor facilities - standards
   b. Adequate outdoor facilities - standards
   c. Maintenance and up-keep of facilities
   d. Standards for equipment and supplies
   e. Policies and procedures for acquiring equipment and supplies
   f. Utilization and care of equipment and supplies
      (1) Stocking
      (2) Marking
      (3) Issuing
      (4) Cleaning and renovating
      (5) Storing

8. He understands the features of Oregon Health and Physical Education Laws
   a. Relation to the purposes of physical education
   b. Background and development of laws
   c. Content - purpose of laws
CHAPTER IV
REQUIRED COURSES FOR PROFESSIONAL PHYSICAL EDUCATION

The courses included in this chapter are constituent parts of the basic program of required courses for the major in physical education at Oregon State College. The Division of Physical Education outlines a basic program for the major student in physical education and incorporates therein required professional physical education courses (47, pp. 429-430). In addition to required courses, the following courses are taken into account in this chapter:

1. Professional education courses required for state certification (47, p. 287).

2. Psychology courses prerequisite to all upper-division education courses (47, p. 285).


The professional physical education courses that men students are required to complete are:

(PE 121) Introduction to Physical Education
(PE 122) Introduction to Physical Education
(PE 174) Techniques of Gymnastics
(PE 175) Techniques of Football, Track and Field
(PE 176) Techniques of Tennis, Golf, and Minor Sports
(PE 225) Techniques of Rhythmics
(PE 274) Techniques of Swimming
Under the present requirements, men students complete only five of the seven technique courses offered, and only two of the four coaching courses offered. The two required coaching courses are Coaching of Basketball (PE 346) and Coaching of Football (PE 347). Men students are to complete: (a) courses PE 174, 225, 274, and (b) any two of the following courses: PE 175, 176, 275 and 276. Coaching of Baseball and Coaching of Track and Field are elective professional courses.

Professional Education courses include the following:

(ED 311) Secondary Schools in American Life
(ED 312) Educational Psychology
(ED 313) Principles of Teaching
(ED 408h) Methods and Materials (Physical Education)

The prerequisite psychology courses used in this chapter are General Psychology (Psy 207 and 208).
The basic science courses considered count the following:

(Z 114) Human Biology
(Z 115) Human Biology
(Z 116) Human Biology
(Z 321) Elementary Human Anatomy
(Z 322) Elementary Human Anatomy
(Z 323) Applied Human Anatomy
(Z 331) Physiology
(Z 332) Physiology
(Z 336) Applied Human Physiology

Description of Courses

The following brief descriptions of the various courses depict the main elements of each. The complete description of the courses will be found in the appendix.

1. Introduction to Physical Education. Physical Education 121. Modern problems and developments of physical education in relation to general education; education as a life profession; the professional preparation program for teaching health and physical education; how education is concerned with American democracy; the purposes of education in a democracy; the place of physical education in the school curriculum.

2. Introduction to Physical Education. Physical Education 122. The historical background of physical education; standards for physical education in schools; the program of activities in physical education; the problems of competitive athletics in secondary schools; the place of interscholastic athletics in education.
3. **Techniques of Gymnastics.** Physical Education 174. Laboratory course in methods, techniques and skills; value of gymnastics; simple stunts; tumbling stunts; balance stunts; pyramids; apparatus stunts; calisthenics; open order movements and commands; student demonstration of ability.

4. **Techniques of Football, Track and Field.**

Physical Education 175. Laboratory course in methods, technique, and skills. **Football:** history, foundation of football, stance, blocking, tackling, line play, end play, backfield play; individual skills and team execution; offensive and defensive team play; conditioning of athletes. **Track and Field:** running, starts, hurdles, jumps, weights, general form; rules; individual variations; technique used in teaching form.

5. **Techniques of Tennis, Golf, and Minor Sports.**

Physical Education 176. Laboratory course in methods, techniques, and skills. **Tennis:** history, equipment, technical terms, scoring; basic tennis fundamentals; tennis strategy and positions; mechanics of form; service; **Golf:** background of game; clubs and care of equipment; fundamentals of all swinging strokes; techniques of form; various shots, irons used, mechanics; special shots; playing the whole game. **Minor Sports:** speedball, soccer, six-man football, flashball, softball, badminton, handball, volleyball; place in the program; playing areas and
equipment; rules; play of the positions; techniques.

6. Techniques of Rhythmics. Physical Education 225. Laboratory course in methods, techniques and skills; fundamentals of rhythm; vocabulary; rhythmic analysis of walks and basic dance steps; music analysis; mixers and progressive dances; knowledge of, understanding of, and skill in various rhythmic skills.

7. Techniques of Swimming. Physical Education 274. Laboratory course in methods, techniques and skills; values of swimming; methods for teaching swimming; history and development; program; beginner, intermediate, advanced; pool hygiene; stroke analysis; life saving.

8. Techniques of Boxing and Wrestling. Physical Education 275. Laboratory course in methods, technique and skills; Boxing; objectives, place in the program; techniques; positions; footwork, fundamental blows and blocks, defense; classroom procedures; methods of teaching, class control, formal and informal procedures; experience in handling boxing classes. Wrestling; history; facilities, equipment and safety devices; rules; objectives; techniques; refereeing; conducting tournaments; group drills; the wrestling team.

9. Techniques of Basketball and Baseball. Physical Education 276. Laboratory course in methods, technique and skills; Basketball; fundamentals of basketball; shots,
dribble, pivots, passes, fakes; defenses; types of offense, plays, offensive patterns for various defenses; execution of plays and patterns. Baseball; fundamentals of baseball, catching, throwing, fielding, hitting, bunting, pitching; playing first base; playing second base; playing shortstop; playing third base; playing out-field; offense; defense; organization and management; playing situations; coaching problems.

10. Coaching of Basketball. Physical Education 346. Coaching and training of basketball teams; fundamentals; shooting, dribbling, pivoting, passing, and faking; types of defense; offensive systems against defensive set-ups; organization; managers, equipment, and coaching policy; early conditioning; discipline and attitudes; tournaments; scouting; problems relative to officiating; coaching psychology.

11. Coaching of Football. Physical Education 347. Football theory and practice; problems in coaching high school football, details of each position, quarterback strategy, defensive stunts, offensive and defensive play for all positions, the kicking game, the running game, the passing game; systems of offense; scouting; defensive formations; organization of daily practice schedule; use of visual aids; equipment purchase and care; conditioning and training.
12. **Coaching of Baseball.** Physical Education 348. Technique of hitting; position play; the pitcher; defensive game; the catcher; general infield play; qualifications of: first base, second base, shortstop, third base, outfield; cut-off; base running; practice sessions; schedules; care and construction of field.

13. **Coaching of Track and Field.** Physical Education 349. Construction and care of track; construction, use, and assembling of equipment; conduct of meets; form and technique; selection of individual for certain events; correction of errors in form; diet and training rules; traveling; training schedule.

14. **Organization and Administration of Intramural Sports.** Physical Education 350. Intramural program for high schools and colleges; aims and objectives; intramurals in education; steps in organizing and administering the program; units of competition; methods of competition; program of sports; intramural rules and regulations; special administrative problems; student's self-survey of intramural program.

15. **Athletic Training and Conditioning.** Physical Education 361. Practical and theoretical aspects of training and conditioning; anatomy from the viewpoint of needs of the trainer; physiological phenomena; physical
examination; massage; medical gymnastics; hydrotherapy; bandaging and taping; athletic injuries and their treatment, diet and conditioning; equipment and supplies for the training room.

16. Nature, Function and Organization of Play. Physical Education 435. Nature of play, historical background, function of play, characteristics, aims and objectives, educational purposes of play, classification of play; need for play in modern life; organization, facilities and equipment, program, administrative policies; the playground leader; design and construction of playground.

17. Secondary Schools in American Life. Education 311. Exploration by the student into the profession of teaching; opportunities in the field of education; development of the secondary education program in the United States; backgrounds of secondary education in modern America; place of education in American democracy; curriculum of the secondary school; pupil personnel program; high school as a community agency; problems faced by secondary education; the teacher and her job.

18. Educational Psychology. Education 312. Background and present day aspects of education; methods of research in educational psychology; instincts and emotions; variations in human capacities; general principles of learning; forgetting; formal discipline or the transfer
of training; motivation; attention and interest; measurement in education; teacher's and pupil's personalities; marks and grades; applications to learning of the above.

19. **Principles of Teaching.** Education 313.
Psychological factors in learning objectives of secondary education, the high school population, personal characteristics of the teacher, organization of teaching, directing the learning situation, evaluating and reporting pupil progress, class room management and control, teacher-pupil relationships.

20. **Methods and Materials.** (Physical Education)
Education 408h. Selecting and organizing materials for instruction; comparison and evaluation of methods, supplies and equipment for teaching, economy of time and materials, the teacher in a new teaching position, characteristics of secondary school students, learning in physical education, the routines of teaching, developing units of instruction, constructing lesson plans, maintaining class control, evaluating physical education teaching.

21. **General Psychology.** Psychology 207 and 208.
A study of the fundamental facts of human equipment and behavior; a two-term sequence; definitions of psychology, its aims and procedures; origins of human behavior and principles of early development; structure of the human body and behavior; modifying behavior and retaining or
removing learned responses; the mainsprings of behavior and how they develop; using past experiences to solve problems and improving this ability; development and measurement of mental abilities; developing a concept of self and procedures of enhancing or defending self-concept; process of adjusting individual characteristic integration of mental and physical traits to the personal and social environment.

22. **Human Biology. Zoology 114.** Science as a process; biological science, man's place in the animal kingdom; characteristics of living organisms; maintenance of the individual, matter and energy, classes and functions of foods, metabolism, transport and excretion, coordination and adjustment; human anatomy and physiology.


24. **Human Biology. Zoology 116.** Interrelationships of animals and plants, relationships of organisms with physical environment, relationships
between organisms, cooperation and competition, biological conservation; human populations; concept of biotic potential, world populations; population change and cultural effects, factors affecting human populations, appraisal of future man.

25. Elementary Human Anatomy. Zoology 321. Designed especially to meet the needs of physical education students; introduction to human anatomy and terminology; general osteology; osteology of the superior extremity; general arthrology; articulations of the superior extremity; osteology of the inferior extremity; musculature of the inferior extremity; articulations of the inferior extremity; the skull; musculature of the head; mandibular articulation.

26. Elementary Human Anatomy. Zoology 322. Designed especially to meet the needs of physical education students. Osteology, musculature, and articulations of the neck and trunk; general angiology, including heart and vessels; general neurology and different parts of the nervous system; vessels and nerves of the head, neck and trunk, the superior extremity, and inferior extremity; splanchnology; respiratory, digestive, and urogenital systems; vessels and nerves of the thoracic and abdominal viscera.
27. **Applied Human Anatomy (Kinesiology)**.

Zoology 323. The applied phases of anatomy are considered. Designed especially for physical education students. The framework and joints of the body; histology of muscle; methods of studying muscular action; review of the nervous system and a consideration of muscular control; mechanical principles; actions of levers and related problems; movements of various parts of the body from the mechanical and kinesiological analysis; shoulder girdle, shoulder joint, elbow joint, hand, hip joint, knee joint, ankle and foot, spinal column, breathing movements; study of posture; spinal column and feet, remedial and corrective exercises; student analysis and presentation of selected activity.

28. **Physiology.** Physiology 331. Especially for students majoring in home economics, pharmacy, zoology, and physical education. Tissues and muscles; protoplasm and life processes, tissues, muscle physiology, phenomenon of contraction; the nervous system; control of tissue activity, conductivity, reflex actions, the brain, autonomic nervous system, properties of nerve fibre, the nerve cell; the special sense; sense organs, cutaneous and internal sensations, taste and smell, the eye, the ear; endocrine glands.

29. **Physiology.** Physiology 332. Especially for
students majoring in home economics, pharmacy, zoology and physical education. Blood and circulation; mechanical factors of blood circulation, the heart, capillaries and tissue fluid formations; respiration; digestion and metabolism; reproduction; renal secretion; body temperature.

30. Applied Human Physiology. Physiology 336. Applied phases of physiology. Designed especially for students majoring in physical education. Study of the heart and its action; study of the pulse; blood pressure; minute volume of circulating blood; blood composition and functions; respiration; muscle physiology in exercise; a study of work, energy requirement, oxygen debt, and mechanical efficiency; effects of various loads of work on the individual; various tests for physical condition, conditions affecting the temperature of the body.
CHAPTER V
COMPARISON OF COURSE CONTENT WITH CRITERIA

The areas of competency discussed in Chapter II state the qualities, abilities and understandings desired in the prospective teacher of physical education. This chapter will compare the content of the various courses in the professional physical education program with the statements of competency. The major topics of each area of the criteria are discussed relative to their existence as features of the various courses.

Physical Education in Society

The professional student understands the place of physical education in earlier societies. The course, Introduction to Physical Education (PE 122), devotes unit I, "What is the Historical Background of Physical Education?," to this understanding.

The student understands the contributions of physical education to the ideals of modern society. Unit III, "How is Education Concerned with American Democracy?," and unit IV, "What are the Purposes of Education in Democracy?," in the course Introduction to Physical Education (PE 121), are directly concerned with this statement. The course, Secondary Schools in American Life (ED 311), presents in unit IV, "The Place of Education
in American Democracy." This unit does not make direct application to physical education, but aids in defining the ideals of modern society for the desired understanding.

The professional student understands the importance of physical education to national emergencies. Content is devoted to this understanding in the course, Introduction to Physical Education (PE 122). A topic, under unit I, covers the importance of World War I and II and the obligations and needs during emergencies.

He understands the relationship of physical education to specific problems in modern society: increased leisure, increased life expectancy, specialization in industry, urbanization, decentralized family unit. Unit III, "The Need for Play in Modern Life," of the course, Nature, Function, and Organization of Play (PE 435) covers a number of the problems included in this statement. Features of the course, Introduction to Physical Education (PE 121), promote this understanding. Unit V of this course has particular reference to this statement.

**Professional Growth**

He strives for continuous development of those characteristics which constitute a desirable personality for teaching. The student's desire to develop these characteristics must be preceded by the recognition and
understanding of them. The personal requirements for successful teaching are included as a topic of unit I of the course, Introduction to Physical Education (PE 121).

A topic of unit I, Methods and Materials (Physical Education) (ED 408h), consists of an appraisal of the qualifications for a physical education teacher. A topic of unit I, Secondary Schools in American Life (ED 311), embodies the qualifications of a teacher and includes therein desired personality traits. Unit X, Educational Psychology (ED 312), reviews the items of personality deemed favorable for teachers. A topic of unit I, Principles of Teaching (ED 313), is devoted to the personal characteristics of the teacher in operation and includes a representative list of ten characteristics.

The student recognizes the importance of active participation in community affairs. While only one course specifically devotes content to this statement, reference is made to the importance of the community in several of the courses. Unit VIII, Secondary Schools in American Life (ED 311), covers several phases of the role of the community in education and devotes a topic to community service. Unit IX of this course considers the relationship of the teacher with the community as a sub-topic.
regards the community as a topic of unit I, and as a sub-topic of unit V. A sub-topic of unit I, Principles of Teaching (ED 313), covers interest in community affairs as a personal characteristic of the teacher in operation.

The professional student accepts the responsibility for continuous professional development. The student's acceptance of this responsibility will be difficult to measure by common methods, but his understanding of this responsibility can be improved as it is promoted by several courses. Unit II, "What is the Professional Preparation Program for Teaching Health and Physical Education?," Introduction to Physical Education (PE 121), presents content respecting the understanding of this responsibility. Further understanding is evident in the course, Secondary Schools in American Life (ED 311).

Unit I, "Entering and Growing in the Profession," concerns this statement. Unit IX, "The Teacher and Her Job," devotes a sub-topic to an understanding of the responsibility for continuous professional growth. The course, Principles of Teaching (ED 313), calls attention to personal and professional growth in unit I.

He understands the importance of identification with professional organizations. The features of the courses listed immediately above are concerned in general with developing this understanding. Unit I, Secondary Schools in American Life (ED 311), covers the aspects
of professional organizations and literature.

The student understands the implications of the major problems to be found in physical education in the schools. The course, Introduction to Physical Education (PE 122), considers many of the problems in unit II, "What are the Standards for Physical Education in Schools?," and unit IV, "What are the Problems of Competitive Athletics in Secondary Schools?" Other courses recognize the existence of the various problems in this area, but do not devote specific content to any one problem.

The student understands the importance of a professional code of ethics. Unit I, Introduction to Physical Education (PE 121), answers the question, "What are the Ethics in the Profession of Education?" A part of unit IX, Secondary Schools in American Life (ED 311), covers professional ethics.

**Interscholastic Athletic Program**

The professional student develops an acceptable viewpoint of the place of interscholastic athletics in education. Unit I, Introduction to Physical Education (PE 121), covers, "What is the Danger in Believing Coaching is Apart from Teaching?" Unit V, Introduction to Physical Education (PE 122), answers, "What is the Place of Interscholastic Athletics in Education?"
He is skilled in the best techniques which may be used in coaching. The coaching courses, PE 346, 347, 348 and 349 include as part of their content the desirable techniques in coaching the several sports. Observation reveals that, while the course outline may omit specific mention of techniques in coaching, these techniques are brought to the attention of the students in various phases of the professional technique and coaching courses.

He is prepared to give advanced instruction in those sports included in the interscholastic athletic program. Under the present professional program, men students are required to complete only five of the seven technique courses offered, and only two of the four coaching courses (47, pp. 429-430). The sports found in the interscholastic athletic program in schools include areas not covered by existing program requirements. If the professional student followed these requirements, he might well complete his program at Oregon State College lacking the desired degree of competency implied by this statement.

The student understands the operation of state athletic associations in athletics. Introduction to Physical Education (PE 122) notes the role of state associations in unit V, "Organization for Athletics."
The student is capable of establishing acceptable policies for interscholastic athletics; eligibility, contest management, facilities, equipment, student managers, awards, schedules and others. General consideration of desired policies for interscholastic athletics is evident in unit IV, Introduction to Physical Education (PE 122). The conduct of the training room is commonly associated with athletics and involves diversified responsibilities. The criteria has regarded this feature of coaching under policies. The course Athletic Training and Conditioning (PE 361) covers all phases of this area and exceeds the restricted mention of desired competency presented in the criteria. Policies for physical education and athletics are considered as a sub-topic of unit I, Methods and Materials (Physical Education) (ED 408h), but specific mention of the policies listed above is not present in the content outline. Policies for contest management, facilities, equipment and student managers receive attention in the several coaching courses; PE 346, 347, 348, and 349.

Nature and Conditions of Learning Through Physical Activity

The professional student understands the development of motor skill. Unit III, Methods and Materials
(Physical Education) (ED 408h), considers, "What Constitutes the Best Learning in Physical Education?," and calls attention to motor learning and the development of skills. Background knowledge for this understanding is evident in the following courses: General Psychology (Psy 207), General Psychology (Psy 208), Elementary Human Anatomy (Z 321), Elementary Human Anatomy (Z 322), Applied Human Anatomy (Z 323), Physiology (Z 331), Physiology (Z 332), Applied Human Physiology (Z 336), and Educational Psychology (ED 312). Unit IV, "General Principles of Learning," of the latter course (ED 312) regards features of learning important in the development of motor skills.

He understands how to achieve economy and efficiency in motor learning. A topic of Unit III, Methods and Materials (Physical Education) (ED 408h), promotes this understanding in the coverage of "Learning in Physical Education." Unit IV, "How Can We Modify Our Behavior and Retain or Remove These Learned Responses?," and unit V, "What is the Nature of the Mainsprings of Behavior and How Do They Develop?," of the course, General psychology (Psy 207) are concerned with this understanding. The following units of the course Educational Psychology (ED 312) similarly promote this understanding. Unit II, "Instincts and Emotions," unit III, "Variations in Human Capacities," Unit IV, "General Principles of Learning,"
unit V, "Forgetting," unit VI, "Formal Discipline or the Transfer of Training," unit VII, "Motivation," and unit VIII, "Attention and Interest." Principles of Teaching (ED 313), unit I, in the topic, "Basic Psychological Factors," also includes content concerning this understanding. The role of practice in motor learning is considered in relation to unique activities in technique and coaching courses. Observation reveals that while some of the activity courses include mention of practice periods and conditions in the content outline, other courses do not.

He understands the relationship of various activities to student well-being. The effects of fatigue on the human body receives attention in Applied Human Physiology (Z 336). The content of this course considers fatigue in relation to various activities in addition to the other elements of physiology. General safety procedures and methods are included in the following technique courses: Techniques of Gymnastics (PE 174), Techniques of Swimming (PE 274), Techniques of Boxing and Wrestling (PE 275). The general safety precautions unique to particular technique and coaching courses are frequently covered in the introductory phase of a course, under the heading of proper equipment, or as a feature of
body fundamentals. The relationship of various activities to the general health of the student is not evident in the content of the courses considered.

He understands the mechanics of efficient body movement. The course, Applied Human Anatomy (Kinesiology) (A 323), is devoted in its entirety to understanding in this area. The mechanics of movement are also taken into account in the technique and coaching courses. Content in these courses is regarded in relation to specific activities, sports or games.

He understands the implications of individual differences to learning: intelligence, growth and development, strength, endurance, coordination, body-build types, physical fitness. The nine courses included in the area of basic sciences contain background content of individual differences. These courses number: Human Biology (Z 114, 115, 116), Elementary Human Anatomy (Z 321, 322), Applied Human Anatomy (Z 323), Psychology (Z 331, 332), and Applied Human Physiology (Z 336). Six other courses in the group likewise consider content having reference to individual differences in learning.

Unit II, Methods and Materials (Physical Education) (ED 408h), covers the characteristics of students in secondary schools. A sub-topic in unit II, Secondary Schools
in American Life (ED 311) embodies provision needed for exceptional children. A sub-topic of unit I, Educational Psychology (ED 312), regards the role of different approaches for individual differences. Unit III of this course covers, "Variations in Human Capacities." A sub-topic of unit III, Principles of Teaching (ED 313), considers some suggestions in specific fields for providing for individual differences. The two courses, General Psychology (Psy 207, 208) are concerned throughout with content related to the implications of individual differences to learning. It is difficult to isolate any one unit as more concerned with this area than another.

Personal Skill in Physical Education

The professional student performs physical education activities commonly found in the physical education program and achieves excellence in several. Under the existing requirements the student might well lack the ability to perform certain activities found in the physical education program. As previously mentioned, students are required to complete only five of the seven technique courses offered and only two of the four coaching courses offered. At present, there is no course or
requirement that compels the student to specialize, or achieve excellent skill in courses.

He accepts the responsibility to excel in as many activities as possible. A sub-topic of unit I, Methods and Materials (Physical Education) (ED 408h), in an appraisal of the qualifications for a physical education teacher, takes into account professional attitude and versatility desired. Realization of this statement depends on the student's recognition of the need to excel and his desire to achieve excellence. His attitude toward professional growth and improvement is important to this topic.

The student understands the fundamental skills of the activities which he will be called upon to teach: aquatics, conditioning exercises, fundamentals of body movement, recreational games and individual sports, rhythms, team games, track and field, tumbling and apparatus. Techniques of Swimming (PE 274) is devoted to the swimming and life saving as features of the area of aquatics, but does not consider the fundamental skills of diving. Techniques of Gymnastics (PE 174) includes conditioning exercises in unit VII. The various fundamental body movements particular to a given activity are included in the technique courses as positions,
approaches, or fundamentals of the activity. The present program does not require the student to take a course that covers recreational games or individual sports. Techniques of Golf, Tennis, and Minor Sports (PE 176) includes a number, but not all, of these games and sports, but this course is elective for the student. The individual sports, boxing and wrestling, constitute the course, Techniques of Boxing and Wrestling (PE 276). This course may also be excluded from the student's program by his election. Techniques of Rhythms (PE 225) covers the fundamental skills in the area of rhythms. The fundamentals of team games are found in Techniques of Golf, Tennis and Minor Sports (PE 176) and in Techniques of Basketball and Baseball (PE 276). These courses are included as electives for the professional student and as such, are subject to omission. The fundamental skills of track and field are also found in an elective course, Techniques of Football, Track and Field (PE 175). The skills of tumbling and apparatus are included in Techniques of Gymnastics (PE 174).

Teaching Techniques

The professional student acquires the ability to establish pupil-teacher understanding in learning situations. Methods and Materials (Physical Education)
(ED 408h) covers the basic knowledges needed for the development of this ability. Unit VI, Secondary Schools in American Life (ED 311), regards the pupil personnel program and places emphasis on the need for guidance. Unit IX of this course covers the relationship of the teacher with pupils in a sub-topic. Educational Psychology (ED 312) covers many features of the psychology of teaching and learning needed by the student to develop this ability. A topic of unit I, Principles of Teaching (ED 313), takes into account the characteristic of the teaching-learning situation and includes teacher-pupil cooperation. Unit III of this course regards the role of pupil-teacher understanding, and a topic of unit V is devoted to teacher-pupil relationships.

The student is skilled in using various methods for effective physical education instruction in different teaching situations. Methods and Materials (Physical Education) (ED 408h), unit III, implicates methods in learning in physical education. Unit VII of this course is devoted to, "What Methods or Techniques are Useful in Teaching Physical Education?" Unit V, Secondary Schools in American Life (ED 311), regards methods in relation to the curriculum of the secondary school.
Unit IV, Educational Psychology (ED 312), covers the whole and part methods of learning and other general principles of learning in relation to a variety of conditions and situations.

He is capable of effective class management and control. A topic of unit III, Introduction to Physical Education (PE 121) regards the nature of discipline in a democratic society. Unit VIII, Methods and Materials (Physical Education) (ED 408h), considers, "How Can Class Control be Maintained in Physical Education?," and includes various types of problems and how to deal with them. Unit VII, Educational Psychology (ED 312), considers class management and control under the heading of motivation. Unit V, Principles of Teaching (ED 313), is devoted to the role of classroom management and control.

The student organizes physical education instruction in conformance with the ability levels of students. Unit VII, Methods and Materials (Physical Education) (ED 408h), devotes a topic to the relation of method to the ability of students. The several technique courses consider the relationship of developing skill in activities to the level of the learner, although seldom is this relationship considered from an organizational standpoint.
The graduate is capable of assisting students in the development of social skills through participation in physical education activities. Introduction to Physical Education (PE 121) devotes the following units to the background needed by the student for competence in this area. Unit III, "How is Education Concerned With American Democracy?", unit IV, "What are the Purposes of Education in a Democracy?", and unit V, "What is the Place of Physical Education in the School Curriculum?" A sub-topic of unit III, Methods and Materials (Physical Education) (ED 408h), regards the purposes of students and learning as purposeful self-activity. Unit IV, Secondary Schools in American Life (ED 311), "The Place of Education in American Democracy," and unit VIII, "Problems Faced by Secondary Education," consider many of the social skills that are the responsibility of education.

He is skilled in the routines of physical education class operation. Methods and Materials (Physical Education) (ED 408h) covers this area in unit IV, "How Are the Routines of Teaching Handled?" Unit V of this course covers, "How are Units of Instruction Developed for Physical Education?" and unit VI answers, "How are Lesson Plans Constructed?" A topic of unit I, Educational Psychology (ED 312), concerns the importance of lesson plans to teachers and pupils. Principles of Teaching
(ED 313) covers many of these routines in unit II, "Organization of Teaching-Learning Situations," and unit III, "Directing the Learning Situation." The coverage in this course refers to education in general rather than physical education.

He understands the place of teaching techniques for physical education: demonstration, discussion, written materials, audio-visual aids, explanation, practice, competition, and others. Unit VII, Methods and Materials (Physical Education (ED 408h), concerns, "What Methods or Techniques are Useful in Teaching Physical Education?" and covers the general use of these techniques in teaching physical education.

**Evaluation in Physical Education**

The professional student is skilled in the use of evaluation techniques. Unit IX, Methods and Materials (Physical Education) (ED 408h), concerns, "How can Physical Education Teaching be Evaluated?", but does not mention specific techniques of evaluation for physical education. Unit III, Principles of Teaching (ED 313), devotes a topic to evaluation and considers therein, types of evaluation instruments.
The student understands the need for evaluation to determine whether students accomplish the purposes of physical education and education. A topic of unit IX, Methods and Materials (Physical Education) (ED 408h), concerns using results of evaluation for improvement. A topic of unit IX, Education Psychology (ED 312), includes the reasons for measurement in education. The first topic of unit IV, Principles of Teaching (ED 313), covers the purposes of evaluation.

The student understands the basic principles for evaluation of physical education instruction. The principles for evaluation receive general coverage in unit IX, Methods and Materials (Physical Education) (ED 408h), unit IX, Educational Psychology (ED 312) and unit IV, Principles of Teaching (ED 313).

The student understands the criteria for the selection of appropriate evaluation techniques. The courses that are concerned with evaluation do not mention the criteria for the selection of appropriate evaluation techniques.

He understands administrative policies regarding evaluation. The courses considered to not devote content to this area of competency. Principles of Teaching (ED 313) considers procedures in evaluation in a sub-topic of unit IV, but does not mention administrative policies.
He understands how to use the results of evaluation for improving instruction. Unit IX, Methods and Materials (Physical Education) (ED 408h), devotes a sub-topic to the use of evaluation results for improvement of instruction. Unit IX, Educational Psychology (ED 312), "Measurement in Education," and unit XI, "Marks and Grades," take into account the utilization of results of evaluation. A topic of Unit IV, Principles of Teaching (ED 313) considers reporting pupil progress and the diagnosis of learning difficulties.

He understands the elements of statistics for the interpretation and utilization of results. Educational Psychology (ED 312) covers the curve of learning in unit IV, "General Principles of Learning." Unit IX of this course, "Measurement in Education," considers statistical features in evaluation as a topic. Unit I, General Psychology (Psy 207) devotes a sub-topic to the elements of statistics. The role of marks and grades is covered by unit XI of this course. The role of marks and marking systems also receive attention in the course, Methods and Materials (Physical Education) (ED 408h) in unit IX, and in the course, Principles of Teaching (ED 313) in the unit IV.
Organization and Administration

He recognizes the importance of effective administrative planning. A sub-topic of unit IV, Introduction to Physical Education (PE 121), concerns the role of administration in increasing the efficiency of teachers. Unit V, "What is the Place of Physical Education in the School Curriculum?" of this course, Introduction to Physical Education (PE 121), devotes a topic to the objectives of physical education. Introduction to Physical Education (PE 122) covers the scope of the curriculum in Unit III, "What Should be the Program of Activities in Physical Education?" This unit also covers the grade placement of activities, but does not specifically mention program progression through the grades, nor outline a complete program of physical education.

The student realizes the importance of a constructive public relations program to physical education. Unit VII, Secondary Schools in American Life (ED 311), considers the public relations as a topic of "The High School as a Community Agency." The coverage in this unit is concerned with education in general and not physical education.
The student achieves a basic understanding of office management. Under the present program requirements the student has no opportunity to develop competence in this area through the courses.

The student comprehends the nature of administrative authority and responsibility. Unit II, Introduction to Physical Education (PE 122), answers, "What are the Standards for Physical Education in Schools?" and covers time allotment and class size. Topics of unit III of this course consider the grade placement of activities and factors influencing the choice of activities. Unit V, Methods and Materials (Physical Education) (ED 408h), covers factors which influence unit planning and methods of planning instruction. Unit VII, Secondary Schools in American Life, (ED 311), covers, "The High School as a Community Agency," and covers the importance of utilizing community resources and the role of the school as a community agency. While the above features covered by the courses are included in the nature of administrative authority and responsibility, the content of these courses is primarily devoted to the teacher and not the administrator.

The teacher understands suitable personnel practices for teaching and coaching. A topic of unit I, Introduction to Physical Education (PE 121), considers, "What are the
Personnel Practices in Education?" A sub-topic of unit IV, Introduction to Physical Education (PE 122), covers teacher loads as a special problem of competitive athletics. Unit I, Methods and Materials (Physical Education) (ED 408h), devotes a topic to the policies for the school system. Unit IX, "The Teacher and Her Job," Secondary Schools in American Life (ED 311), considers features of personnel practices from the standpoint of the teacher's responsibility.

He is capable of organizing a program of intramural athletics. The course, Organization and Administration of Intramural Sports (PE 350) covers the areas of competency that make up this statement.

He understands the problems concerning facilities, equipment and supplies required for physical education. A topic of unit III, Introduction to Physical Education (PE 122,) covers the standards for facilities, equipment and supplies for physical education. Unit IV, Methods and Materials (Physical Education) (ED 408h), regards standards, utilization, and care of equipment and supplies.

He understands the features of Oregon Health and Physical Education Laws. Unit II, Introduction to Physical Education (PE 122), devotes a topic to the Oregon Law for Health and Physical Education.
Summary

The following tables disclose the various courses that cover the statements of competency and reveal the amount and type of content devoted by each course. These tables do not indicate the extent of coverage. The extent of coverage is not determined by the number of units or topics, but rather by the adequacy with which all features of a statement of competency are covered.

The symbol "U" is used when a unit of content concerns a statement of competency. The symbol "T" is used when a main topic of a unit concerns a statement, and the symbol "S" is used to indicate that a sub-topic concerns the statement considered. The courses that devote more than one unit to a particular statement are marked by a corresponding number of "U's". This procedure is similarly followed in the use of the other two symbols. The maximum number of symbols used in any case is three. For example, if a particular course devotes two topics to a statement of competency, two "T's" appear in the column below the course number.
<table>
<thead>
<tr>
<th>Major Topic Areas of the Criteria</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He understands the place of physical education in earlier societies.</td>
<td>U</td>
</tr>
<tr>
<td>2. He understands the contributions of physical education to the ideals of society.</td>
<td>U U U</td>
</tr>
<tr>
<td>3. He understands the importance of physical education to national emergencies.</td>
<td>T</td>
</tr>
<tr>
<td>4. He understands the relationship of physical education to specific problems in modern society.</td>
<td>T T Ef+</td>
</tr>
<tr>
<td>Major Topic Areas of the Criteria</td>
<td>Courses</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>U - Unit</td>
</tr>
<tr>
<td>1. He strives for continuous development of those characteristics which constitute a desirable personality for teaching.</td>
<td>T</td>
</tr>
<tr>
<td>2. He recognizes the importance of active participation in community affairs.</td>
<td>T</td>
</tr>
<tr>
<td>3. He accepts the responsibility for continuous professional development.</td>
<td>T</td>
</tr>
<tr>
<td>4. He understands the importance of identification with professional organizations.</td>
<td>S</td>
</tr>
<tr>
<td>5. He understands the implications of the major problems to be found in physical education in schools.</td>
<td>U</td>
</tr>
<tr>
<td>6. He understands the importance of a professional code of ethics.</td>
<td>T</td>
</tr>
</tbody>
</table>
### TABLE III
INTERSCHOLASTIC ATHLETIC PROGRAM

<table>
<thead>
<tr>
<th>U - Unit</th>
<th>T - Topic</th>
<th>S - Sub-topic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. He develops an acceptable viewpoint of the place of interscholastic athletics in education.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. He is skilled in the use of the best techniques which may be employed in coaching.</td>
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<td></td>
<td>3. He is prepared to give advanced instruction in those sports included in the interscholastic athletic program.</td>
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<td></td>
<td>4. He understands the operation of state athletic associations in athletics.</td>
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<tr>
<td></td>
<td>5. He is capable of establishing acceptable policies for interscholastic athletics.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Topic Areas of the Criteria</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td></td>
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<td>2.</td>
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<td>3.</td>
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<td>4.</td>
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<td>5.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses</th>
<th>121</th>
<th>124</th>
<th>126</th>
<th>127</th>
<th>128</th>
<th>129</th>
<th>130</th>
<th>131</th>
<th>132</th>
<th>133</th>
<th>134</th>
<th>135</th>
<th>136</th>
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</tbody>
</table>
TABLE IV

NATURE AND CONDITIONS OF LEARNING THROUGH PHYSICAL ACTIVITY

<table>
<thead>
<tr>
<th>U - Unit</th>
<th>T - Topic</th>
<th>S - Sub-topic</th>
</tr>
</thead>
</table>

Major Topic Areas of the Criteria

1. He understands the development of motor skill.

2. He understands how to achieve economy and efficiency in motor learning.

3. He understands the relationship of various activities to student well-being.

4. He understands the mechanics of efficient body movement.

5. He understands the implications of individual differences to learning: intelligence, growth and development, strength, endurance, coordination, body build - types, physical fitness.
### TABLE V

**PERSONAL SKILL IN PHYSICAL EDUCATION**

<table>
<thead>
<tr>
<th>U - Unit</th>
<th>T - Topic</th>
<th>S - Sub-topic</th>
<th>Courses</th>
</tr>
</thead>
</table>

#### Major Topic Areas of the Criteria

1. He performs physical activities commonly found in the physical education program and achieves excellence in several.

2. He accepts the responsibility to excel in as many activities as possible.

3. He understands the fundamental skills of the activities which he will be called upon to teach: aquatics, conditioning exercises, fundamentals of body movement, recreational games and individual sports, rhythms, team games, track and field, tumbling and apparatus.
### Major Topic Areas of the Criteria

<table>
<thead>
<tr>
<th></th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He acquires the ability to establish pupil-teacher understanding in learning situations.</td>
<td>T U S U</td>
</tr>
<tr>
<td>2. He is skilled in using various methods for effective physical education instruction in different teaching situations.</td>
<td>T S T U</td>
</tr>
<tr>
<td>3. He is capable of effective class management and control.</td>
<td>T U U U</td>
</tr>
<tr>
<td>4. He organizes physical education instruction in conformance with the ability levels of students.</td>
<td>T</td>
</tr>
<tr>
<td>5. He is capable of assisting students in the development of social skills through participation in physical education activities.</td>
<td>U U U T T T</td>
</tr>
<tr>
<td>6. He is skilled in the routines of physical education class operation.</td>
<td>T U U U</td>
</tr>
<tr>
<td>7. He understands the place of teaching techniques for physical education: demonstration, discussion, written materials, audio-visual aids, explanation, practice, competition.</td>
<td>U</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Major Topic Areas of the Criteria</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He is skilled in the use of evaluation techniques.</td>
<td>S S</td>
</tr>
<tr>
<td>2. He understands the need for evaluation to determine whether students accomplish the purposes of physical education and education.</td>
<td>S S</td>
</tr>
<tr>
<td>3. He understands the basic principles for evaluation of physical education instruction.</td>
<td>S S S</td>
</tr>
<tr>
<td>4. He understands the criteria for the selection of appropriate evaluation techniques.</td>
<td></td>
</tr>
<tr>
<td>5. He understands administrative policies regarding evaluation.</td>
<td></td>
</tr>
<tr>
<td>6. He understands how to use the results of evaluation for improving instruction.</td>
<td>U T S T</td>
</tr>
<tr>
<td>7. He understands the elements of statistics for the interpretation and utilization of results.</td>
<td>T S T T U</td>
</tr>
</tbody>
</table>

**TABLE VII**

**EVALUATION IN PHYSICAL EDUCATION**

**U - Unit**

**T - Topic**

**S - Sub-topic**
<table>
<thead>
<tr>
<th>Major Topic Areas of the Criteria</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He recognizes the importance of effective administrative planning.</td>
<td>U T</td>
</tr>
<tr>
<td>2. He realizes the importance of a constructive public relations program to physical education.</td>
<td>T</td>
</tr>
<tr>
<td>3. He achieves a basic understanding of office management.</td>
<td></td>
</tr>
<tr>
<td>4. He comprehends the nature of administrative authority and responsibility.</td>
<td>U T T</td>
</tr>
<tr>
<td>5. He understands suitable personnel practices for teaching and coaching.</td>
<td>T S S T</td>
</tr>
<tr>
<td>6. He is capable of organizing a program of intramural athletics.</td>
<td>U U U</td>
</tr>
<tr>
<td>7. He understands the problems concerning facilities, equipment and supplies required for physical education.</td>
<td>U T S</td>
</tr>
<tr>
<td>8. He understands the features of Oregon Health and Physical Education Laws.</td>
<td>T</td>
</tr>
</tbody>
</table>
CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

The conclusions of this chapter are based on the extent to which each statement of competency is covered. The extent of coverage is determined by whether all features of each statement of competency appear in courses or not. The comparison of statements of competency to the contents of the several courses has revealed the following general types of coverage:

1. Adequate coverage - all features of a statement of competency appear in courses

2. Inadequate coverage - lack of coverage or limited coverage of features of statements in courses.

3. Scattered coverage - coverage in several courses, or scattered coverage within a course.

4. Obvious repetition and duplication - similar coverage of a statement of competency, or of features of a statement, in more than one course.
Physical Education in Society

The statements concerning the place of physical education in earlier societies and the contributions of physical education to the ideals of modern society are adequately covered in an introduction to physical education course. The statement regarding the importance of physical education to national emergencies is covered adequately in the other introduction to physical education course. The statement concerning the relationship of physical education to specific problems in modern society is covered in part in an introduction to physical education course and in the course, Nature, Function, and Organization of Play. Coverage of all features of the statement is not evident in these two courses.

Professional Growth

The characteristics which constitute a desirable personality for teaching are covered generally in five courses. This coverage is scattered, and in various features, duplicated. The importance of active participation in community affairs is adequately covered as a responsibility of every teacher. This statement is not specifically covered in relation to the responsibility of the physical education teacher.
The responsibility for continuous professional development is covered to a limited extent in an introduction to physical education course and is covered in part by two education courses. The importance of identification with professional organizations is covered in only a limited extent, and this coverage is not in relation to physical education. The implications of the major problems to be found in physical education in the schools are adequately covered in the introductory courses to physical education and the course in methods and materials of physical education. While this coverage appears to be adequate, it is quite generalized. The importance of a professional code of ethics is adequately covered, receiving attention in relation to physical education as well as general education.

**Interscholastic Athletic Program**

The place of interscholastic athletics in education is covered adequately in the introduction to physical education courses. This coverage is divided between the two courses but is not duplicated. The use of the best techniques which may be employed in coaching is covered in a limited extent. Only two coaching courses are
required in the professional program, and therefore; competency in relation to the techniques particular to other sports is not covered. Preparation to give advanced instruction in those sports included in the interscholastic athletic program is also covered to a limited extent.

Eight different sports are commonly included in the interscholastic athletic program. Under the existing program the student is required to become familiar with only three of these sports, with the option to elect two other technique courses. The operation of state athletic associations in athletics is covered in an introduction to physical education course. Acceptable policies for interscholastic athletics are covered in a variety of ways. Introductory and method courses in physical education give a limited and generalized coverage of the policies. Policies for the training room are adequately and specifically covered in the course on athletic training and conditioning. Policies for contest management, facilities, equipment and student managers are covered in the two required coaching courses, but similar policies for other sports are not covered.

Nature and Conditions of Learning Through Physical Activity

Understanding of the development of motor skill is
covered in ten courses. This coverage is in the form of general background knowledge. Adequate coverage is evident in the course on educational psychology. Understanding of how to achieve economy and efficiency in motor learning is similarly covered in a number of basic science courses. The roles of practice, motivation and instruction are covered in the education courses with some duplication. Adequate coverage is evident in the course on methods and materials of physical education. The relationship of various activities to student well-being is covered in a limited extent in the technique courses which are required. The general effects of fatigue are adequately covered in the course on applied human physiology. The relationship of activities to the general health of students is not covered by course content. The mechanics of efficient body movement are adequately covered in the course on applied human anatomy. The implications of individual differences to learning receive scattered and duplicated coverage in the several basic science courses, general psychology courses, education courses and the course in methods and materials of physical education. This repetition and duplication concerning individual differences is understandable in these courses.
Personal Skill in Physical Education

The student's ability to perform physical education activities commonly found in the physical education program is not required under the present program. The previously mentioned program requirements of five of the seven technique courses and two of the four coaching courses leaves much to be desired in this area. There is no course or program requirement that compels professional students to specialize, or achieve excellent skill, in any activity. Acceptance of the responsibility to excel in as many activities as possible is promoted in a limited and indirect way by consideration of professional attitude in methods and materials of physical education. Student understanding of the fundamental skills which he will be called upon to teach is limited by program requirements as discussed above.

Teaching Techniques

The ability to establish pupil-teacher understanding is covered by several courses. This scattered coverage is adequate, but specific application to physical education
is limited. Skill in using various methods for effective physical education instruction in different teaching situations is covered adequately in the methods and materials course. Generalized coverage of various methods in teaching is presented in the education courses, but application of method for physical education is not included. Effective class management and control is adequately covered in a generalized manner. Some duplication is present in certain features of this area. Organization of physical education instruction in conformance with the ability levels of students is covered in methods and materials of physical education. The development of social skills through participation in physical education activities receives scattered coverage in two physical education courses. This coverage is primarily concerned with the social skills that should be developed. Skill in the routines of physical education class operation is adequately covered in several courses. This scattered coverage shows only limited treatment of skill progression and keeping necessary records. The various teaching techniques for physical education are covered in the course methods and materials of physical education.
Skill in the use of evaluation techniques is not covered in the professional program. Understanding of the need for evaluation receives scattered and limited coverage in methods and materials of physical education as well as the education courses. The principles of evaluation, the criteria for selection of evaluation techniques, administrative policies regarding evaluation, use of the results of evaluation for improving instruction and the elements of statistics are all covered inadequately or only to a limited extent. The limited coverage that does exist is frequently duplicated.

The importance of effective administrative planning receives limited coverage in the sense that the features of the program that come under administrative planning are included in methods and materials of physical education. The importance of a constructive school public relations program is covered adequately in an education course, but application is not made to physical education. A basic understanding of office management is not covered by present courses in the professional program. The nature of administrative authority and responsibility
is covered in part, and to a limited extent, in methods and materials of physical education and the education courses. The coverage that does exist is in relation to the teacher and not the administrator. Suitable personnel practices for teaching and coaching receive generalized coverage with the various features that make up this area appearing in several courses. These features are not covered in relation to each other, moreover this coverage is not in terms of organization and administration. The ability to organize a program of intramural athletics receives specific and adequate coverage in the course on organization and administration of intramural sports. The problems concerning facilities, equipment and supplies required for physical education are covered adequately in an introduction to physical education course and in the course on methods and materials of physical education. While this coverage is scattered, there is no evidence of duplication. The features of Oregon Health and Physical Education Laws are covered in an introduction to physical education course, but the exact extent of coverage is not indicated.

Summary of Conclusions

The following table indicates the adequacy or inadequacy of course coverage of the various statements
Of competency. An "A" following the statement indicates adequate coverage. An "I" following the statement indicates inadequate coverage.

Table IX
COURSE COVERAGE OF STATEMENTS OF COMPETENCY

<table>
<thead>
<tr>
<th>Statement of Competency</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Physical Education in Society</strong></td>
<td></td>
</tr>
<tr>
<td>1. He understands the place of physical education in earlier societies.</td>
<td>A</td>
</tr>
<tr>
<td>2. He understands the contributions of physical education to the ideals of modern society.</td>
<td>A</td>
</tr>
<tr>
<td>3. He understands the importance of physical education to national emergencies.</td>
<td>A</td>
</tr>
<tr>
<td>4. He understands the relationship of physical education to specific problems in modern society; increased leisure, increased life expectancy, specialization in industry, urbanization, decentralized family unit.</td>
<td>I</td>
</tr>
<tr>
<td><strong>II. Professional Growth</strong></td>
<td></td>
</tr>
<tr>
<td>1. He strives for continued development of those characteristics which constitute a desirable personality for teaching.</td>
<td>A</td>
</tr>
<tr>
<td>2. He recognizes the importance of active participation in community affairs.</td>
<td>A</td>
</tr>
<tr>
<td>Statement of Competency</td>
<td>Coverage</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>3. He accepts the responsibility for continuous professional development</td>
<td>I</td>
</tr>
<tr>
<td>4. He understands the importance of identification with professional organizations</td>
<td>I</td>
</tr>
<tr>
<td>5. He understands the implications of the major problems to be found in physical education in schools</td>
<td>A</td>
</tr>
<tr>
<td>6. He understands the importance of a professional code of ethics</td>
<td>A</td>
</tr>
</tbody>
</table>

III. **Interscholastic Athletic Program**

| 1. He develops an acceptable viewpoint of the place of interscholastic athletics in education | A        |
| 2. He is skilled in the use of the best techniques which may be employed in coaching       | I        |
| 3. He is prepared to give advanced instruction in those sports included in the interscholastic athletic program | I        |
| 4. He understands the operation of state athletic associations in athletics               | A        |
| 5. He is capable of establishing policies for interscholastic athletics: eligibility regulations, contest management, facilities, equipment, student managers, awards, schedules, practice periods, and others | I        |

IV. **Nature and Conditions of Learning Through Physical Activity**

<p>| 1. He understands the development of motor skill                                          | A        |</p>
<table>
<thead>
<tr>
<th>Statement of Competency</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. He understands how to achieve economy and efficiency in motor learning.</td>
<td>A</td>
</tr>
<tr>
<td>3. He understands the relationship of various activities to student well-being.</td>
<td>I</td>
</tr>
<tr>
<td>4. He understands the mechanics of efficient body movement.</td>
<td>A</td>
</tr>
<tr>
<td>5. He understands the implications of individual differences to learning: intelligence, growth and development, strength, endurance, coordination, body-build types, physical fitness.</td>
<td>A</td>
</tr>
</tbody>
</table>

V. Personal Skill in Physical Education

1. He performs physical activities commonly found in the physical education program and achieves excellence in several. | I        |
2. He accepts the responsibility to excel in as many activities as possible. | I        |
3. He understands the fundamental skills of the activities which he will be called upon to teach: aquatics, conditioning exercises, fundamentals of body movement, recreational games and individual sports, rhythms, team games, track and field, tumbling and apparatus. | I        |

VI. Teaching Techniques

1. He acquires the ability to establish pupil-teacher understanding in learning situations. | A        |
2. He is skilled in using various methods for effective physical education instruction in different teaching situations. | A        |
Table IX
Course Coverage of Statements of Competency continued

<table>
<thead>
<tr>
<th>Statement of Competency</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. He is capable of effective class management and control</td>
<td>A</td>
</tr>
<tr>
<td>4. He organizes physical education instruction in conformance with the ability levels of students.</td>
<td>A</td>
</tr>
<tr>
<td>5. He is capable of assisting students in the development of social skills through participation in physical education activities.</td>
<td>A</td>
</tr>
<tr>
<td>6. He is skilled in the routines of physical education class operation.</td>
<td>A</td>
</tr>
<tr>
<td>7. He understands the place of teaching techniques for physical education; demonstration, discussion, written materials, audio-visual aids, explanation, practice, competition, and others</td>
<td>A</td>
</tr>
</tbody>
</table>

VII. Evaluation in Physical Education

<table>
<thead>
<tr>
<th>Statement</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He is skilled in the use of evaluation techniques.</td>
<td>I</td>
</tr>
<tr>
<td>2. He understands the need for evaluation to determine whether students accomplish the purposes of physical education and education.</td>
<td>A</td>
</tr>
<tr>
<td>3. He understands the basic principles for evaluation.</td>
<td>I</td>
</tr>
<tr>
<td>4. He understands the criteria for the selection of appropriate evaluation techniques.</td>
<td>I</td>
</tr>
<tr>
<td>5. He understands administrative policies regarding evaluation.</td>
<td>I</td>
</tr>
<tr>
<td>6. He understands how to use the results of evaluation for improving instruction.</td>
<td>I</td>
</tr>
</tbody>
</table>
Table IX
Course Coverage of Statements of Competency continued

<table>
<thead>
<tr>
<th>Statement of Competency</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. He understands the elements of statistics for interpretation and utilization of results</td>
<td>I</td>
</tr>
</tbody>
</table>

VIII. Organization and Administration

1. He recognizes the importance of effective administrative planning.                     | I        |

2. He realizes the importance of a constructive public relations program to physical education. | A        |

3. He achieves a basic understanding of office management.                                 | I        |

4. He comprehends the nature of administration authority and responsibility.              | A        |

5. He understands suitable personnel practices for teaching and coaching.                 | I        |

6. He is capable of organizing a program of intramural athletics.                         | A        |

7. He understands the problems concerning facilities, equipment and supplies.            | A        |

8. He understands the features of Oregon Health and Physical Education Laws.             | A        |

Recommendations

In view of the foregoing conclusions, the recommendations of this study are:
1. It is recommended that the area of the relationship of physical education to specific problems in modern society be studied and that content be placed in a professional physical education course.

2. It is recommended that competencies desired in the area of professional growth receive more detailed coverage and that stress be placed on the importance of identification with professional organizations.

3. It is recommended that provision be made in the professional curriculum for student experiences in all sports included in the interscholastic athletic program. These experiences should include techniques in coaching as well as specific coverage of policies for interscholastic athletics.

4. It is recommended that emphasis be placed on learning unique to physical education as distinguished from learning applicable to general education. This emphasis should not replace the broad coverage of learning now in operation, but rather should extend features of coverage to the physical education program.

5. It is recommended that the requirements in the areas of technique and coaching be expanded to include coverage of all activities commonly found in physical education programs in the schools, and that an emphasis be placed on the development of student skill to perform well as many activities as possible.
6. It is recommended that the competencies desired in the area of teaching techniques be covered with more specific reference to interests and problems of physical education teachers.

7. It is recommended that adequate emphasis be placed on evaluation of physical education by providing experiences that promote the desired competencies.

8. It is recommended that the competencies desired in the area of organization and administration be allocated in a professional physical education course.

Related Recommendations

The development of this study calls attention to a number of related aspects of professional preparation. The professional preparation of teachers is a very complex problem, made up of sundry questions that are yet to be answered. Several of these questions have arisen during the course of this study, and the obvious nature of the questions has prompted their inclusion at this time. No attempt has been made to deal with these problems, rather they are recommended as areas for further study.
1. Use of time - What should be the basis for determining the divisions of professional preparation and what proportion of time should be spent on each phase?

2. Adequacy of coverage - What criteria could be used to determine the amount of attention the various phases of the professional program should receive?

3. Over-lapping and planning - How much over-lapping is necessary? What curricular provisions are made to keep over-lapping at a minimum? What provisions are made for integration of work?

4. Grade placement - Where should the various phases of the professional program be covered? Where in the program should generalization stop and specialization begin?

5. Program evaluation - What is the effectiveness of preparation? How well is the professional graduate prepared to do his job?
BIBLIOGRAPHY


COURSE CONTENT OUTLINE

PE 121 INTRODUCTION TO PHYSICAL EDUCATION

Unit I  Why is Education a Life Profession?

1. What are the advantages and disadvantages of teaching?
2. What is the danger in believing coaching is apart from teaching?
3. What are the personal requirements for successful teaching?
4. What things should be considered in making a choice of a profession?
5. What are the employment opportunities in health, physical education, and recreation?
   A. Physical education
   B. Recreation
   C. Health education
   D. Related fields
   E. Future employment
   F. Specific subject combinations Oregon Schools
6. What are the personnel practices in education?
7. How can advancement be made in education and physical education?
8. What are the ethics in the profession of education?
   A. Phi Delta Kappa
   B. N.E.A.
   C. AAHPER

Unit II  What is the Professional Preparation Program for Teaching Health and Physical Education?

1. What are the standards for professional preparation?
2. What is the undergraduate professional program at Oregon State College?
3. What is the nature of graduate work in physical education?
4. What are some additional ways to prepare for the profession?

Unit III  How is Education Concerned with American Democracy?

1. Conceptions of democracy
   A. Superficial
   B. Fundamental
2. Articles of the democratic faith
   A. Individual human being of surpassing worth
   B. Earth and human culture belong to all men
   C. Man can and should rule themselves
D. Human mind can be trusted and should be set free
E. Method of peace is superior to that of war
F. Racial, political and cultural minorities should be tolerated, respected, and valued

3. Loyalites of free men
A. To himself as a human being of dignity and worth
B. To the principle of human equality and brotherhood
C. To the ideal of fairmindedness and scientific spirit in conduct of the democratic process
D. To the ideal of respect for and appreciation of talent, training, character and excellence in all fields of socially useful endeavor
E. To the ideal of obligation and the right to work
F. To the supremacy of the common good
G. To the obligation to be socially informed and intelligent

4. Knowledge necessary for free men
A. Nature of man in society
B. Basic history of mankind
C. Knowledge of the struggle to liberate human mind and civilize the human heart
D. Crisis in domestic and world relations
E. Knowledge of the totalitarian movements
F. Knowledge of the weaknesses of American democracy
G. Knowledge of the strength, resources and promise of American democracy

5. Nature of discipline in democratic society
A. Some deficiencies that need correction
B. Teaching discipline in a free society

6. The nature of democratic education
A. Devoted to realization of democratic faith
B. Marked by integrity and honesty in all relations
C. Is responsible to changing conditions of life
D. Is independent of partisan struggles of the moment
E. Is sensitive to changing hopes, ideals and problems of people
F. Is free from domination by private persons and groups


Unit IV What are the Purposes of Education in a Democracy?

1. The purpose of the school is to help children, youth and adults to become well-adjusted, self-supporting and actively participating citizens of the community
2. Every child and every adult should, to the maximum of each individual's capacity, achieve competency in effective living
3. The educated person, in accordance with his ability and experience
   A. Achieves full realization of his individual capacities
B. Assumes civic responsibility
C. Practices good human relationships
D. Attains economic efficiency

4. The effective school program is achieved through
   A. A planned curriculum
   B. Professionally trained teachers
   C. A stimulating classroom situation

5. The efficiency of teachers is increased by providing well-organized services
   A. Administration
   B. Business
   C. Guidance
   D. Health
   E. Supervision
   F. Personnel
   G. Research

Unit V  What is the Place of Physical Education in the School Curriculum?

1. Values which contribute to the enrichment of living evolve from the ideals of democracy

2. The potential values of physical education
   A. Biological needs of children and youth
   B. Social needs of children and youth
   C. Psychological needs of children and youth

3. The kind of people that we seek to develop
   A. Want healthy, fit people
   B. Want secure, adequate, happy people
   C. Want considerate, friendly, cooperative people
   D. Want people who are mastering cultural heritage

4. The objectives of physical education
   A. Organic aspects of development - endurance
   B. Neuromuscular aspects of development - strength; body control; recreation skills; relaxation; flexibility
   C. Emotional aspects of development - release from tension; adequacy; happiness
   D. Social aspects of development - group consciousness; cooperation; group membership; friendliness; respect for personality; consideration of other's rights; responsibility; self-direction

PE 122  INTRODUCTION TO PHYSICAL EDUCATION

Unit I  What is the Historical Background of Physical Education?

1. Modern society evolved from previous societies
A. Education and physical education reflects the times
B. Cultural "lag" is a phenomenon in education
C. Democratic ideas grew from the efforts of men through the ages

2. Primitive society
A. Basic characteristics
B. Physical education

3. Oriental society
A. Basic characteristics
B. Physical education

4. Greek society
A. Attained a high degree of civilization
B. Achieved political integration
C. Established our education system - palestra; gymnasium; ephebic training

5. Freemens Games
A. Forces and ideas influencing athletics
B. Decline of athletics
C. Athletic associations and professionalism
D. Criticism of athletics in literature

6. National festivals
A. Development
B. Characteristics of games
C. Types of activities
D. Corruption in Olympic games
E. Other national festivals

7. Roman culture
A. Conquest of Greeks
B. Military power and physical education
C. Reasons for the fall of the Roman empire

8. Dark ages
A. Conquest by northern barbarians
B. Lack of cultural growth

9. Christianity
A. Reward of eternal happiness and minimize present day living
B. Little concern for physical development
C. Assumed a dichotomy of mind, soul and body
D. A basis for modern society

10. Asceticism
A. The evil of worldly things
B. Similarity between ascetics in Christianity and other religions
C. Subjugation of worldly desires
D. Diametrically opposed to physical education

11. Feudalism
A. Landed nobles and vassals
B. Church and chivalry
C. Physical training for knighthood

12. Renaissance
A. Revival of learning
B. Protestant movement
C. Realism, naturalism, and other movements

13. Turner Vereln
   A. Characteristics of Turner movement
   B. Criticisms of the Turner movement

14. Scandinavian influence
   A. Swedish
   B. Danish

15. British
   A. Heritage of sports for America
   B. Social value of English sports and games

16. YMCA
   A. Contribution to physical education
   B. Early history and leaders

17. Importance of World War I and II
   A. Revelations of draft figures
   B. Need for physical education during emergencies
   C. The obligation placed upon physical educators

18. Important men and organizations since 1900

Unit II What are Standards for Physical Education in Schools?

1. The Oregon Law for Health and Physical Education
2. Time allotment
   A. Structure of typical period
   B. Encroachments upon time
3. Class size
   A. Number of students
   B. Problems of scheduling
   C. Methods of scheduling
4. Facilities, equipment and supplies
   A. Multiple use of facilities
   B. Types of areas
   C. Equipment and supplies
   D. Maintenance

Unit III What Should be the Program of Activities in Physical Education?

1. Variation in present practice
2. Relation of activities to objectives
3. Factors influencing choice of activities
4. Grade placement of activities

Unit IV What are the Problems of Competitive Athletics in Secondary Schools?

1. Control of athletics
   A. Early days
   B. Phases of control
   C. Undesirable elements of control
D. Control in school officials

2. Special problems
   A. Insurance
   B. Financing
   C. Purchasing
   D. Teacher load

Unit V  What is the Place of Interscholastic Athletics in Education?

1. A pattern for athletic competition
   A. Participation
   B. Student body
   C. Community

2. Organization for athletics
   A. State associations
   B. Local leagues
   C. Athletic council

3. Administration authority and duties
   A. Superintendent
   B. School principal
   C. Director of athletics

PE 174  TECHNIQUES OF GYMNASTICS

Unit I  Introduction

1. Values of gymnastics
2. Safety
3. Spotting
4. Nomenclature - terminology in gymnastics
5. Relationship of performer to apparatus
   A. Stands
   B. Supports
   C. Holds
   D. Grasps
   E. Balance
   F. Seats
   G. Feints
   H. Mount; dismount; vault; jumps; and routine

Unit II  Simple Stunts

1. Individual stunts with forward motion
2. Partner stunts with forward motion
3. Miscellaneous individual stunts
4. Miscellaneous partner stunts
5. Contest stunts
6. Stunts with equipment
Unit III  **Tumbling Stunts**

1. Individual Stunts
2. Partner stunts

Unit IV  **Balance Stunts**

1. Individual stunts
2. Partner stunts

Unit V  **Pyramids**

1. Single balance
2. Two man balance
3. Three man balance
4. Four man balance
5. Five man balance
6. Complete pyramids of seven or more men
7. Pyramids on different pieces of apparatus
8. Ladder pyramids

Unit VI  **Apparatus Stunts**

1. Side horse
2. Parallel bars
   A. Floor bars
   B. Low bars
   C. High bars
3. Long horse
4. Buck
5. Rings
6. Traveling rings
7. Low horizontal bar
8. High horizontal bar
9. Trampoline
10. Stall bars
11. Light apparatus
    A. Dumb bells
    B. Wands
    C. Indian Clubs

Unit VII  **Calisthenics**

1. Open order movements and commands
2. Progression in difficulty of calisthenics
   A. Arm exercises
   B. Leg exercises
   C. Trunk exercises
   D. Back exercises
   E. Shoulder exercises
   F. Neck exercises
G. Combination exercises

PE 175 TECHNIQUES OF FOOTBALL, TRACK AND FIELD

Unit I Introduction

Unit II The Foundation of Football
1. Stance
   A. Offensive stance
   B. Defensive stance
   C. Coaching points
   D. Drills
2. Blocking
   A. Shoulder block
   B. Cross body block
   C. Coaching points
   D. Drills
3. Tackling
   A. Essential elements of tackling
   B. Coaching points
   C. Drills
4. Line play
   A. Offensive line play - center, guard, tackle; coaching, drills
   B. Defensive line play - tackle, guard, center; coaching, drills
5. End play
   A. Offensive play - coaching points, drills
   B. Defensive play - coaching points, drills
6. Backfield play
   A. Offensive play - ball handling, spinning, blocking, running
   B. Defensive play - coaching points, drills

Unit III Individual Skills and Team Execution
1. The kicking game
   A. Punting - punt protection; punt as an offensive weapon
   B. Defense - rushing kicker; returning the punt
   C. Types of kicks - quick, place, drop, kick-off, coaching; drills
2. The passing game
   A. The technique of passing
   B. The technique of pass receiving
   C. Protecting the passer
   D. Passing strategy
   E. The lateral pass
3. The running game
   A. The essentials of the running game
   B. Coaching points
   C. Drills

Unit IV Offensive and Defensive Team Play

1. Offensive formations and plays
   A. Offensive formations
   E. Choosing a formation
   C. Formations
   D. Building the offense
2. Defensive formations
   A. Standard defensive formations
   B. Individual assignments in the defensive formations
   C. Special defenses
   D. Coaching points
   E. Pass defense drills
   F. Types of scrimmage for team development
3. Generalship
   A. Three types of quarterbacks
   B. Hints to the quarterback
4. Signal systems
   A. Offensive signals
   B. Defensive signals

PE 175 TECHNIQUE OF TRACK

Unit I Running

1. General running form
   A. Body and extremities position
   B. Stride
2. Nature of individual best adapted to various events
3. Technique used in teaching form

Unit II Starts

1. General form
2. Rules
3. Variations for individual difference in physical and mental make-up
4. Technique used in teaching form

Unit III Hurdles

1. Form for high hurdles
2. Form for low hurdles
3. Variations for individual physical make-up
4. Technique used in teaching form

Unit IV Jumps

1. Form for pole vault
2. Form for high jump
3. Form for broad jump
4. Variation for individual physical make-up
5. Technique used in teaching form

Unit V Weight

1. Form for shot put
2. Form for discus
3. Form for javelin
4. Variations for individual physical make-up
5. Technique used in teaching form

PE 176 TECHNIQUES OF GOLF, TENNIS, AND MINOR SPORTS

Unit I Introduction to Golf

1. Description of the game  
   A. Values of golf  
   B. Object  
   C. Terms  
   D. Addressing the ball

2. Clubs  
   A. Loft  
   B. Design  
   C. Purpose

3. Care of equipment

Unit II Fundamentals of all Swinging Strokes

1. The grip  
   A. Overlapping  
   B. Reverse overlapping putting

2. The stance  
   A. Open  
   B. Closed  
   C. Square

3. The swing  
   A. Wrist action  
   B. Back swing  
   C. Pivot  
   D. Follow through
Unit III  Shots

1. Short shots
   A. Pitch and run shots - No. 5 Iron
   B. Pitch and chip shots - No. 7 Iron
2. Long approach shots
3. Full swing - woods
4. The putting stroke
   A. Grip
   B. Stance
   C. Function of hands
   D. Mechanics of stroke

Unit IV  Technique of All Shots

1. Short iron shots - (No. 7, 8, 9)
   A. Pitch shot
   B. Pitch and run
   C. Chip shots
   D. Trouble shots
2. Medium iron shots - (No. 4, 5, 6)
   A. No. 5 versatile club
   B. Ball played midway between feet
3. Long iron shots - (No. 2, 3)
   A. For accuracy and distance
   B. For distance when the lie makes use of woods risky
4. Wood shots
   A. Distance is primary function of woods
   B. Driver used from tee
   C. No. 2 for fairway shots
   D. No. 3 and No. 4 have more loft, less distance
5. Putting
   A. Indoor
   B. Outdoor on putting green
   C. Importance of accurate putting for par golf

Unit V  The Whole Game

1. Etiquette
2. Rules
3. Vocabulary
4. Choice of clubs for each shot
5. Competitive playing
   A. Keeping score
   B. Team scoring

Unit VI  Special Shots

1. Down hill lie
2. Up hill lie
3. Sand trap
4. Rough
5. Water
6. Obstacles - trees

Unit I Introduction to Tennis

1. History and development of tennis
2. Construction and parts of the racket
3. Construction and lay-out of the court (dimensions)
4. Strokes used in tennis - definitions
5. Playing fundamentals
6. Technical term - definitions
7. The game
   A. To start the game
   B. Faults, violation of any service rule (foot fault)
   C. Let
   D. Player loses point if:
8. Scoring
   A. Points
   B. Exceptions

Unit II Basic Tennis Fundamentals

1. The forehand drive
2. The backhand drive
3. The serve
4. The net game - volley and smash
5. The lob

Unit III Tennis Strategy and Position

1. Singles
2. Doubles
3. Playing situations in tennis - hints and rules
   A. Rallying from backcourt
   B. Playing against a net rusher
   C. Playing against a man at the net
   D. When volleying at the net
   E. Serving - hints and rules
   F. When receiving the serve
   G. Against a retriever
   H. Against a slugger

Unit IV Methods Used in Teaching the Forehand, Backhand and Service

1. The mechanics of the flat stroke built around the following points of form:
   A. The grip
   B. The stance
   C. Point of contact
D. The backswing
E. The shift of weight
F. The body pivot
G. The forward swing

2. The mechanical parts of correct form outlined through the following five progressive levels:
   A. The swing
   B. Stroking a dropped ball
   C. Stroking a tossed ball
   D. Running to stroke a tossed ball
   E. Rallying

Unit V  The Forehand

1. The grip
2. The stance
3. Point of contact
4. The backswing
5. The shift of weight
6. The body pivot
7. The forward swing
8. The five levels of development of the forehand
   A. Level one - the swing
   B. Level two - hitting a dropped ball
   C. Level three - hitting a tossed ball
   D. Level four - running to hit a tossed ball: learned in four steps, footwork, and variations in height of stroke
   E. Level five - Rallying

Unit VI  The Backhand

1. The grip
2. The stance
3. The point of contact
4. The backswing
5. The shift of weight
6. The body pivot
7. The forward swing
8. The five levels of the backhand

Unit VII  The Service

1. The grip
2. The stance
3. Point of contact
4. The toss
5. The swing
MINOR SPORTS - This phase of the course is confined to a period of about six (6) weeks. The material covered permits a restricted coverage of each sport included.

Unit I  Speedball

1. Introduction
   A. Relationship to Soccer
   B. Place in program
2. Rules
3. Playing field and equipment
4. The play of the positions
5. Techniques
   A. Methods or ways to legalize ground balls for hand passing
   B. The Soccer foot dribble
   C. Hand passing and pivot
   D. The kick-off
   E. The overhead dribble
   F. Team plays

Unit II  Soccer

1. Introduction
   A. Universal game
   B. Place in program
2. Field and equipment
3. Rules
4. The play of the positions
5. Techniques
   A. Kicking
   B. Trapping
   C. Blocking
   D. Tackling
   E. Heading the ball
   F. Passing

Unit III  Six-man Football

1. Introduction
   A. Relationship to eleven-man football
   B. Place in program
2. Rules
3. Play of the positions
4. Techniques
5. Plays
Unit IV  Flashball

1. Introduction
   A. General description of game
   B. Place in program
2. Rules
3. Play of the positions
4. Techniques
   A. Passes
   B. Types of play

Unit V  Softball

1. Introduction
   A. Place in program - importance
2. Rules
3. Techniques
   A. Throwing - arm faults and footwork
   B. Catching or fielding
   C. Batting
4. Team play

Unit VI  Badminton

1. Introduction
   A. Place in program
2. Rules
3. Court and equipment
4. Techniques
   A. Grip
   B. Strokes
   C. Footwork
   D. Service
   E. Receiving service
5. Singles game
6. Doubles game

Unit VII  Handball

1. Introduction
   A. Place in program
2. Rules
3. Court and equipment
4. Techniques
   A. Service
   B. Fundamental strokes
   C. Receiving service
5. Four wall game
6. Single wall game
Unit VIII  

Volleyball

1. Introduction
   A. Place in program
2. Rules
3. Court and equipment
4. Techniques
   A. Passing
   B. Serving
   C. Feeding
   D. Boosting
   E. Spiking
5. Team play
   A. Offensive strategy
   B. Defensive play

PE 225  
TECHNIQUES OF PHYSICAL EDUCATION - RHYTHMICS

Unit I  
Fundamentals of Rhythm

1. What is rhythm?
2. Recognition of rhythm in learning, movement, design, arts, etc.

Unit II  
Vocabulary - through listening to music and dancing to it learn to recognize and understand the following terms

1. Tempo
2. Stress or emphasis
3. Underlying beat
4. Syncopation
5. Even and uneven rhythms
6. Rhythmic patterns
7. Steps or foot patterns
8. Floor patterns

Unit III  
Rhythmic Analysis

1. Of the following as walks:
   A. Skip
   B. Gallop
   C. Walk
   D. Slide
   E. Jump
   F. Hop
   G. Leap
2. Basic dance steps of:
   A. Waltz
B. Schottische
C. Polka
D. Two-step
E. Mazurka

Unit IV Music Analysis

1. Recognition and understanding of:
   A. Musical symbols
   B. Notes
   C. Rests
   D. Staff tempo
   E. Indications
   F. Time signature

2. The use in music and dance of:
   A. Meter
   B. Tempo
   C. Phrasing
   D. Measure
   E. Accent
   F. Underlying beat

Unit V Mixers and Progressive Dances - which are easy to do and can be used outside of class in informal groups

1. Examples:
   A. Glowworm
   B. Oh, Susannah
   C. Patty Cake Polka
   D. Jessie Polka

Unit VI Knowledge of and Skill in:

1. Performing the basic square dance terms
2. Skills - as learned through dancing them in square dance patterns

Unit VII Skill in performance plus an understanding of the basic dance steps and experience dances which use those basic steps

Unit VIII Knowledge, understanding of, and skill to do the following figures which are commonly used in round, social, and folk dancing

1. Balance
2. Cake walk
3. Chassez
4. Close
5. Crass
6. Dip or cortee
7. Draw
8. Glide
9. Grapevine
10. Heel and toe
11. Pivot
12. Push
13. Rock
14. Step swing, point or touch
15. Bleking
16. Cut step
17. Hesitation
18. Hungarian Break Step
19. Jig step
20. Pas de Basque
21. Heel clicks

PE 274 TECHNIQUES OF SWIMMING

Unit I Introduction

1. Values of swimming
   A. Mental relaxation
   B. Muscular rehabilitation (muscle injury)
   C. Social development
   D. Physiological benefits
   E. Preservation of life
   F. Recreational - Activity for all ages
2. Relation of swimming to education
   A. Laws of education: Exercise, effects, readiness
3. Prerequisites and methods for teaching swimming
   A. Have fundamental techniques and knowledge of all swimming
   B. Have practice knowledge (be a performer)
   C. Have daily lesson plan for group
   D. Classify groups according to ability and skill
4. History and development
   A. 3000 B. C.
   B. 1800 Side stroke
   C. 1902 Crawl

Unit II Program

1. Beginner - cannot swim or cannot swim and has phobia for water
   A. Methods for gaining confidence
   B. First lesson: breathing, floats, flutter kick, sculling action and dog paddle depending on type of float
   C. Beginner - divisions
D. Special recommendations for adults

2. Intermediate - can paddle or swim 25 to 100 feet
   A. Divisions - school groups, adults
   B. Intermediate procedure

3. Advanced - good swimmers who can usually swim 2 or more strokes
   A. Advanced procedure
   B. Methods to use for both intermediate and advanced

4. Pool hygiene
   A. Value of showers
   B. Use of toilets and urinals
   C. Footbath
   D. Scum troughs
   E. Pool sanitation to keep infections out

Unit III Stroke Analysis

1. Elementary back stroke
   A. Leg kick - frog action, four counts
   B. Arm action - four counts
   C. Breathing - four counts

2. Sculling back strokes
   A. Leg kick - flutter
   B. Arm action
   C. Breathing

3. Side stroke
   A. Leg kick - three counts scissor
   B. Arm action - three counts
   C. Breathing

4. Breast stroke
   A. Legs - frog action four counts like elementary back stroke
   B. Arms
   C. Breathing

5. American crawl
   A. Leg kick
   B. Arms
   C. Breathing

Unit IV Life Saving

1. Prevention of accidents
   A. Know how to swim
   B. Refrain from taking undue chances in the water
   C. Use common sense
   D. Observe "don'ts"

2. Rescues
3. Approaches
4. Breaks
5. Carries
   A. Cross chest
PE 275  TECHNIQUES OF WRESTLING

Unit I  Introduction:  First Phase

1.  Brief History of wrestling
2.  Objectives of wrestling
   A.  Personal combat sport
   B.  Development of self-reliance
   C.  Development of courage
   D.  Development of impulsive control
   E.  Development of confidence
   F.  Development of agility, balance, and coordination
3.  Purpose of Wrestling as a sport
   A.  To pin an opponent by gaining control
   B.  What constitutes a fall
4.  Rules and regulations
   A.  Length of matches
   B.  Illegal holds and positions
   C.  Unnecessary roughness
   D.  Methods of scoring

Unit II  Second Phase

1.  Explanation of the eight classifications
   A.  Take down eight classifications
   B.  Go behind from "head on"
   C.  Taking to the mat from standing
   D.  Escapes from standing
   E.  Riding and breakdowns
   F.  Pinning combinations
   G.  Escaping underneath
   H.  Counters or blocks for all common holds
2.  Interpretation of rules in terms of the sport
3.  Facilities necessary for a good program
4.  Gear and safety devices

Unit III  Third Phase

1.  Method of instruction
2.  Wrestling from feet
   A.  Close stance
   B.  Open stance
3.  Bull neck wrestling
4. Chain wrestling
5. Floating
6. Take down
   A. Double leg pick-up
   B. Single leg pick-up
   C. Single arm drag
   D. Take arm drag
   E. Head chancery and bar arm
   F. Double bar arm lock
   G. Head and near heel pick-up
   H. Arm drag and heel pick-up
   I. Whizzer series
   J. Arm drag and inside back heel
7. Defense of take downs
   A. Cross face
   B. Snap down
   C. Reverse quarter nelson
   D. Defense against whizzer series
   E. Counters to side head lock

Unit IV Fourth Phase

1. Go behind from head on
   A. Whizzer series
   B. Reverse quarter nelson
   C. Bar arm and head chancery
   D. Reverse thigh and far elbow
   E. Front headlock
   F. Short arm drag
2. Go behind from standing
   A. Short arm drag
   B. Knee drop
   C. Arm lift
3. Take down from behing
   A. Standing rear body lock
   B. Back heel
   C. The leg sweep
   D. Forward trip
   E. Elbow and rear crotch lift
   F. Angle snap and leg trip
4. Escapes from standing
   A. Power sit out
   B. Standing switch
   C. Combination switch and side roll

Unit V Fifth Phase

1. Breakdown and rides
   A. Inside crotch pry
   B. Near ankle
C. Head lever  
D. Rear crotch and far elbow  
E. Far ankle  
F. Cross face and far ankle  
G. Body scissors  
H. Three quarter stretcher  
I. Cross body  
J. Figure four scissors  
K. Four point ride  
L. Near arm ride  

2. Pinning combinations
   A. Inside crotch and half nelson  
   B. Inside crotch and cross face  
   C. Inside crotch and double arm tie up  
   D. Inside crotch and reverse half nelson  
   E. Inside crotch and reverse half cross face  
   F. Bar lock and half nelson  
   G. Bar lock and far arm hook  
   H. Reverse body lock  
   I. Arm bar and body lock  
   J. Key lock  
   K. Arm lock and body press  
   L. Three quarter nelson  
   M. Double bar arm lock  
   N. Chicken wing  
   O. Body scissors  
   P. Gillotine  

Unit VI Sixth Phase

1. Stance from underneath
   A. Offensive  
   B. Defensive  

2. Escapes from underneath
   A. The stand up  
   B. The side roll  
   C. Sit out and turn out  
   D. Sit out and turn in  
   E. Power switch  
   F. Switch  
   G. The leg switch  
   H. The forward roll  
   I. The Craw Fish  
   J. The drag and pull around  
   K. Pulling the leg over head  
   L. Drag and pull around  

Unit VII Seventh Phase

1. Method of instruction
A. Circle for instruction  
B. Whistle  
C. Warm-ups  
D. Mat drills  

2. Modified combat games  
   A. Collar and elbow wrestling  
   B. Side hold wrestling  
   C. Indian wrestling  
   D. Ring wrestling  
   E. Sparrow fight  
   F. Rooster fight

PE 275 TECHNIQUES OF BOXING

Unit I Introduction
1. Explanation of the objectives of boxing  
   A. Competitive boxing  
   B. Classroom boxing  
   C. Place in the physical education program  
2. Discussion of rules

Unit II Boxing techniques
1. Boxing positions  
2. Footwork  
3. Fundamental blows and blocks  
4. Defensive techniques

Unit III Classroom Procedures
1. Methods of teaching  
2. Class control  
3. Formal procedures  
4. Informal procedures

PE 276 TECHNIQUES OF BASEBALL

Unit I Fundamentals of Baseball
1. Catching  
2. Throwing  
3. Fielding  
4. Hitting  
5. Bunting
Unit II  Pitching
1. Position in the box
2. Form
3. Fielding

Unit III  Catching
1. Catching position
2. Throwing
3. Fielding

Unit IV  Playing First Base
1. Position
2. Throwing
3. Fielding

Unit V  Playing Second Base
1. Position
2. Throwing
3. Fielding

Unit VI  Playing Shortstop
1. Position
2. Throwing
3. Fielding

Unit VII  Playing Third Base
1. Position
2. Throwing
3. Fielding

Unit VIII  Playing Out-field
1. Position
2. Throwing
3. Fielding

Unit IX  Offense
1. Hitting
2. Bunting
3. Baserunning
4. Batting order

Unit X  Defense
1. Basic principles
2. Foundation of the defensive game
3. Positions and various situations

Unit XI Organization and Management

1. Equipment
2. Work-outs
3. Schedules
4. Managers
5. Care of equipment

Unit XII Coaching

1. Signals
2. Training of players
3. Care of injuries
4. Handling of players

PE 276 TECHNIQUES OF BASKETBALL

Unit I Introduction

1. Brief history of basketball
2. Place in the program
3. Terminology

Unit II Fundamentals of Basketball

1. One-handed shots
   A. Lay-in shot
   B. Backhand shot
   C. From foul line
   D. Push shot
   E. Swing shots
   F. Other shots for pivot men
2. Two-handed shots
   A. Set chest shot
   B. Foul shot
3. Dribble
   A. Hands and fingers
   B. Arms
   C. Vision and feel
   D. Starting dribble around defensive man
4. Pivots
   A. Front turn
   B. Front pivot
   C. Back pivot
5. Passes
A. Chest pass
B. Hook pass
C. Bounce pass
D. One handed pass
E. Back hand pass
F. General considerations

6. Fakes
   A. Faking a long shot
   B. Fakes from stops
   C. Fakes for swing shots

Unit III Defense

1. Man-for-man defense
2. Zone defense
3. Two-one-two defense
4. Circle defense

Unit IV Offense

1. Fast break
2. Set offense
3. Out-of-bounds plays
4. Offense against a zone defense
5. Offense against 2-1-2 defense

PE 346 COACHING OF BASKETBALL

Unit I Fundamentals

1. One-handed shots
   A. Lay-in shot - position of hands; action of arms; wrist action; take-off; leg action; eyes; backboard
   B. Backhand shot
   C. One-hand from foul line
   D. Push shot from right of basket
   E. Shooting from front turn
   F. Swing shot
   G. Other shots for pivot man

2. Two-handed shots
   A. Set chest shot - hands and fingers; arms; feet; arch of ball; eyes; backboard; follow through
   B. Foul shot - hands and fingers; arms; feet; arch of ball; starting the shot; eyes; follow through

3. Dribble
   A. Hands and fingers
   B. Arms
   C. Vision and feel
D. Starting dribble around defensive man

4. Pivots
   A. Front turn
   B. Front pivot
   C. Back pivot

5. Passes
   A. Chest pass
   B. Hook pass
   C. Bounce pass
   D. One handed or baseball pass
   E. Back hand pass
   F. General information on passing

6. Fakes
   A. Faking a long shot
   B. Fakes from stops at right of basket
   C. Stop and fake at left of basket
   D. Fakes for swing shots

Unit II Defense

1. Considerations in using man-for-man or zone
2. Man-for-man - individual; team; analyzing offensive man
3. Zone defense
4. Diagrams of two-one-two defense
5. Circle defense

Unit III Offense

1. Fast break
2. Set offense
   A. Inside screen
   B. Double screen and cut-away from inside screen
   C. Outside screen
   D. Combinations for guards
   E. Plays for set offense
3. Out-of-bounds plays
4. Offense against zone defense
5. Offense against 2-1-2 defense

Unit IV Organization

1. Managers
   A. Number
   B. Responsibility - response
   C. Understanding of policy and responsibilities
   D. Feeling that job is important
   E. Players attitude toward managers
2. Equipment
   A. Importance of shoes and socks
   B. Different sets of shirts
3. Cutting squad
A. Keep every boy out as long as possible
B. Use of practice in cutting squad

Unit V Early Conditioning

1. Feet
2. Legs
3. Wind
4. Diet
   A. Proposed menu for day of game
   B. Menu when team is allowed to sleep late in the morning
5. Training rules
6. Weight charts
7. Showers
8. Ankle wraps
9. Floor burns
10. Blisters

Unit VI General Discussion

1. Discipline and attitudes
2. Tournaments
   A. Preparation for tournaments
   B. During tournaments

Unit VII Scouting

1. Defense
   A. Zone
   B. Man-for-man
2. Offense
   A. Fast break more effective
   B. Set offense more effective
   C. Out-of-bound plays
   D. Most dangerous offensive man
   E. Plays from tip-off of jump balls
3. Individual analysis

Unit VIII Officiating

1. Problems
   A. Incompetent officiating
   B. Adjust to officials
   C. Strive for competent men
2. Players attitude
   A. Must be one of helpfulness
   B. No demonstrations of temperament
3. Coaches attitude
   A. Support officials in eyes of players
   B. Insist that player concentration must be kept upon
play, and not allowed to be diverted to officials

PE 347 COACHING OF FOOTBALL

Unit I  Introduction
1. A democratic organization of high school football
2. Opinions Regarding the Advisable Age Level for American Football
3. A Testing Program for High School Football
4. Raising Funds to Help Finance the Interscholastic Athletics in Smaller Schools

Unit II  Numbering Systems of Offense in Football
1. Purpose of signal systems
2. Types of word systems
3. Rules for selection of a system
4. Examples of systems
   A. Defensive holes
   B. Offensive holes
   C. Numbering seams
5. Selection of the play number
   A. T-formation
   B. Other formations
6. Numbering pass patterns

Unit III  Quarterback Strategy
1. Choosing a quarterback
2. Teaching a quarterback to think
3. Quarterback must know his system
4. Coaching the quarterback
5. The Quarterback's Bible
   A. Introduction - qualifications and responsibilities
   B. When to punt
   C. When not to pass
   D. When to pass
   E. Rules - to govern decisions and actions
   F. General hints

Unit IV  Scouting
1. Introduction - purpose of scouting
2. At the game
3. Sample sheet of notebook
   A. Recording offense
   B. Recording defense
4. After the game
5. Pointers In Analyzing Offense
   A. Offense in general
   B. Play of line - in general
   C. Center
   D. Guards and tackles
   E. Ends
   F. Play of backs
   G. Pass offense
   H. Kicking game
   I. Offensive strategy
6. Pointers In Analyzing Defense
   A. Defense of line
   B. Defense of backs
   C. Pass defense
   D. Defense against kicks
7. Using the written report - Football Scouting Report
   A. Preliminary practice
   B. Line-up when kicking-off
   C. Receiving the kick-off
   D. Offensive formation and plays
   E. Defensive formations
   F. Summary of offense
   G. Questionnaire on offense
   H. Forward pass chart
   I. Punt chart
   J. Summary of defensive formations
   K. Brief play of opponents are using against the team that is being scouted

Unit V Line Play
1. Line Drills Based on Defensive Principles
   A. Guards
   B. Tackles
   C. Ends
   D. Basic defensive principles for all line men
2. Defensive line play
   A. Tackles - stunts and principles
   B. Guards - stunts: types of defensive guards

Unit VI Defensive End Play
1. Qualifications of defensive end
2. The four types of defensive ends
3. Playing situations
   A. Five man line
   B. Against 7 man line
   C. Rushing the passer
   D. Pass defense
   E. Rushing the kicker
   F. Coaching points
Unit VII Drills

1. Stance
2. Blocking
3. Tackling
4. Line play
   A. Offensive
   B. Defensive
5. End play
   A. Offensive
   B. Defensive
6. Backfield play
   A. Offensive
   B. Defensive
7. The kicking game
8. The passing game
9. The running game

Unit VIII Defensive Formations

1. 6-2-2-1
2. 7-1-2-1
3. 7-2-2
4. 5-3-2-1
5. 6-3-2
6. 6-2-2-1
7. Defensive stunts (individuals)
8. Cross charge
9. Looping line

Unit IX Techniques of line play

1. Check blocks
2. Interference men
3. Center's duties and responsibilities
4. The base for effective blocking: principles
5. Types of blocks
   A. Shoulder
   B. Pivot
   C. Check block
   D. Cross body block
   E. Inside-out blocks
   F. Post - lead
   G. Down field
6. The stance
   A. Offensive
   B. Defensive - types
7. Technique drills
   A. One-on-one
   B. Two-on-one
C. Pass protection  
D. Offensive play drills

Unit X  Pass Defense - Importance

1. Four fundamental factors of pass defense  
   A. Rushing the passer  
   B. Delaying the receiver  
   C. Covering receivers  
   D. Intercepting the pass

2. General types of receiver coverage - Pass Defense  
   A. Zone  
   B. Combination  
   C. Man for man  
   D. Combination of the above

3. General points of agreement on pass defense

4. Defensive pointers

5. Examples of pass defenses  
   A. Yale defense; features and evaluation  
   B. Minnesota; features and evaluation  
   C. Oklahoma; features and evaluation  
   D. Zone against the T  
   E. Combination with 2-2-1  
   F. Combination with 1-2-1  
   G. 2-2 with man for man  
   H. 3-2 with zone  
   I. 2-2-1 zone with guards or ends dropping off  
   J. Against a spread (general)  
   K. 5-3-2-1  
   L. 5-4-2  
   M. Any defense covering running

6. Summary

Unit XI  Pass Defense - Line

1. Balanced line blocking  
2. Unbalanced line blocking  
3. Individual responsibilities

Unit XII  Offense

1. T - formation  
   A. Normal or tight T  
   B. Semi-split T  
   C. Split T  
   D. Simplified high school T-formation

2. Simplified single wing  
3. Punt formations
Unit XIII Building a Pass Offensive

1. Considering personnel
2. Objectives
3. Building passing games with running game
4. Types of passes
5. Two basic ways to run pass plays
6. Pass patterns
7. The running pass

Unit XIV Organization of the Daily Practice Schedule

1. Purpose
2. Various methods used in setting up schedule
3. Features included in the daily practice schedule
   A. Squad announcements
   B. Daily activities
   C. Time allotment
4. Flexible schedules planned for a week
5. Daily schedules planned a day or so in advance
6. Organization is the secret to good football
7. Squad meeting
   A. Introduction
   B. Time schedule
   C. Squad personnel rating chart
   D. Time allotment chart

Unit XV Use of Visual Aids

1. Importance
2. Types of visual aids
3. Value of films (movies are used in class)
   A. Own films
   B. Flexibility of motion pictures
   C. Pre-viewing movies
   D. Commercial films; types and value

Unit XVI High School Conditioning and Training for Football

1. Importance of conditioning and training
2. Training rules to be followed by all team members
3. Locker room regulations
4. Conditioning
5. Conditioning exercises

Unit XVII Equipment

1. Sources
   A. Wilson Brothers
   B. McGregor Goldsmith
   C. Spaulding Brothers
2. What to consider when choosing equipment
   A. Footballs - leather and rubber; advantages and disadvantages of each
   B. Headgear - leather and plastic
   C. Shoulder pads - candeliver and flat pads
   D. Hip pads - nylon and kapak
   E. Shoes - types; construction
   F. Jerseys - practice and game; numbers and materials
   G. Pants - practice and game; important features
   H. Thigh guards - sizes; fitting

3. Care of equipment
   A. Cleaning
   B. Sterilizing
   C. Sizing
   D. Storage

4. What ruins equipment
   A. Friction
   B. Perspiration
   C. Rough play surfaces
   D. Where to get equipment repaired

5. Care of equipment at the end of the season
   A. Numbering each item
   B. Features of the inventory
   C. Clean and laundry as often as budget allows
   D. Clean football shoes daily

6. Other items of equipment
   A. Socks - types and care
   B. Laces - lengths and types
   C. Cleats - types and construction

PHYSICAL EDUCATION 348 COACHING OF BASEBALL

Unit I The Pitcher

1. Physical requirements
2. Importance of control
3. Pre-game warm-up
4. Conditioning
5. The defensive game
   A. Position of the ball in the pitching hand
   B. Proper stance and delivery
   C. Curve ball
   D. Pitching strategy
   E. The pitcher as a fielder
   F. Signs from the catcher
   G. First and second baseman fielding the ball
H. Miscellaneous - throwing; sore arm; detecting sore arms; hindering control; helping control; helps

Unit II The Catcher
1. Physical requirements
2. Catching position
3. Shifts and signals
4. Defensive throwing
5. Calling plays
6. Fielding plays
7. Catcher's material
8. General catching duties

Unit III Hitting
1. Introduction to hitting
2. Basic mechanics of hitting
3. The batting tee
4. Body balance is predicated on the proper stance
5. The "shifting" of the weight
6. The stride
7. The "step" in the stride
8. The strokes
9. Bat position
10. Plate coverage
11. Hip action
12. The front leg
13. Hand action
14. The grip
15. Swinging speed
16. The swinging arc
17. Hitting to the opposite field
18. The technique of hitting the curve ball
19. Head position
20. Mental attitude

Unit IV General Infield Play
1. Basic fielder rules governing play - do's and don'ts
2. Responsibilities in different playing situations

Unit V First Base
1. Physical qualifications
2. Position of play
   A. Normal - no one on
   B. With man on first base
   C. Runner on first base and situation prompts a bunt
   D. With runner on second base
   E. Runners on first and second base
Unit VI Second Base

1. Physical qualifications
2. Position of play
   A. Normal
   B. Position with runner on first base, contemplating bunt situation, close score, no one out
   C. Position with runners on first base and second base, no one out, contemplating a bunt
   D. Position with man on first base, none or one out, double play in sight, right handed batter at the plate
   E. Position with men on first and third base, attempting double steal in order, right hand batter at the plate
3. Method of playing second base
4. Fielding fly balls

Unit VII Shortstop

1. Physical qualifications
2. Position of play
   A. Normal
   B. Position with runner on first base, none out, contemplating bunt, close score
   C. Position with men on first and second, none out, cinch bunt in order
   D. Position with man on first base, none out, double play in sight, and a left handed batter at plate
   E. Position with men on first and third, attempted double steal in order and a left handed batter at plate
   F. Position with man on second base, one out, close score, left-handed batter up
3. Method of play
4. Fielding fly balls
5. Double plays

Unit VIII Third Base

1. Physical qualifications
2. Position of play
   A. Normal
   B. Defensive position against a definite pull right-handed hitter
   C. With a man on first, no one out, a bunt in order, or with a hitter at bat who has a reputation for laying down bunts or someone who is very fast
   D. With a man on first and second base, none out, bunt in order
E. With a man on first and a bunt in order  
F. With a man on second base, possible bunt in order  
G. General playing positions and rules

Unit IX Cut-off  
1. Definition  
2. First baseman's responsibilities  
3. Shortstop's responsibilities  
4. Third baseman's responsibilities

Unit X Outfield  
1. Physical qualifications and duties  
2. Fly balls  
3. Ground balls  
4. Throws  
5. Important defense plays  
6. Suggestions - general responsibilities

Unit XI Base Running  
1. Introduction to base running  
2. General - basic rules to follow  
3. Essentials of base running  
   A. The start  
   B. The pivot  
   C. The slide  
4. Stealing from first base  
   A. First base strategy  
   B. Varieties of steals from first base  
   C. Double steals  
   D. Stealing from second  
   E. Stealing from third  
   F. Base running problems  
5. Coaching the runners  
   A. Base coaching responsibilities  
   B. Third base coacher  
   C. First base coacher  
   rules governing action

Unit XII Practice Sessions  
1. Importance of organization  
2. Methods of workouts  
   A. Pitchers  
   B. Batters  
   C. Infielders and outfielders  
   D. Winding-up the practice session  
   E. The day after a game
PHYSICAL EDUCATION 349 COACHING OF TRACK AND FIELD

Unit I  Construction and Care of Track
1. How to lay out
2. In which construction
3. Upkeep and maintenance

Unit II  Equipment and Care
1. Wearing apparel
2. Equipment articles needed and care
3. How to construct so as to curtail cost

Unit III  Organization for Track Meet
1. Duel
2. District or state
3. Officials
4. Special equipment
5. Dressing
6. Order of events and call cards

Unit IV  Coaching
1. Have had techniques in P.E. 175 (Brief Review)
2. How to select personnel of each event and relays
3. Discussion of possible errors in form and how to correct for each event
4. Diet and training rules, methods of travel and arrival

Unit V  Training Schedule
1. First four week period
   A. Training schedule for each event
   B. How to vary according to individual
2. Second six week period
   A. Training schedule for each event
   B. How to vary according to individual
3. Last four week period
   A. Training schedule for each event
   B. How to vary according to individual

PHYSICAL EDUCATION 350 ORGANIZATION AND ADMINISTRATION OF INTRAMURAL SPORTS

Unit I.  Intramurals in Education
1. Philosophy of education
2. The place of physical education in education
3. The program of physical education and the conducting of required physical education, athletics, and intramurals

Unit II The Nature of Intramural

1. Terminology
2. Stages of development, recent trends, and possible future development
3. Purpose of an intramural program - aims and objectives
   A. Recreation
   B. Social content
   C. Permanent interest in sports
   D. Health
   E. Group spirit
   F. Varsity material, etc.

Unit III Steps in Organizing and Administering a Program of Intramural Sports

1. Types of organization
   A. Varsity coaches
   B. Student control
   C. Intramural director type, etc.
2. Diagrams of different types of organizations
   A. College
   B. Large high school
   C. Small high school
3. Administrative duties of director
   A. General policies
   B. Administrative policies
   C. Publicity
   D. Finance
   E. Contact with students
   F. Field supervision
   G. Recording results
   H. Participation
   I. Operating, etc.

Unit IV Units of Competition

1. Classification of units
2. Classification of individuals within the units
   A. Age, weight, and height
   B. Reilly exponent plan
   C. McCloy's classification index, etc.

Unit V Methods of Competition

1. Various methods of organizing competition between Groups
2. Making of schedules
3. Drawing of byes, making standing, figuring results, etc.

Unit VI  Program of Sports
1. Various types of activities and the adaptation to various age levels
2. Possible activities for various age groupings
3. Rules and regulations covering various sports
4. Available time and equipment for program and possibilities
5. Scoring plan for groups and individuals

Unit VII  Intramural rules and regulations
1. General rules for eligibility, restriction of participation, number of teams, training
2. Regulations governing the playing of games
   A. Protests
   B. Forfeitures
   C. Postponements

Unit VIII  Special Administrative Problems
1. Awards
2. Officials
3. Health supervision
4. Student managers
5. Participation records
6. Health supervision
7. Bulletin boards and permanent records
8. Intramural handbook
9. Facilities and equipment

Unit IX  Self-Survey of your Intramural Program
1. Adequate health examination
2. Wide variety of activities
3. Equal competition for various groups
4. Best possible use of facilities and equipment
5. Safety measures
6. Educational opportunities
7. Amount and type of composition provided in program
8. Restricted student participation
9. Credits in physical education for participation in intramurals
10. Outside of physical education class periods
11. Awards
12. Constitution, rules, by-laws
13. Training period for intramural competition
14. Instruction in intramural sports
15. Aims and objectives in terms of needs of students
16. Does program reach needs of students
17. Is the public acquainted with what you are doing
18. Have you records to show the number of participation, etc.
19. Does your organization provide for intramural managers
20. What opportunities are provided for faculty participation
21. Does the program offer opportunities for development of leadership, sportsmanship, and good citizenship
22. Is there interest in your program by students, faculty, and townspeople

PHYSICAL EDUCATION 361 ATHLETIC TRAINING AND CONDITIONING

Unit I Definition of "training"

1. Branches or divisions of training
   A. Conditioning
   B. Diagnosis and treatment of injuries
   C. Specialized training in skills

2. Essential qualities of a good trainer
   A. Thorough knowledge of anatomy, physiology, physiotherapy, and allied fields
   B. Resourcefulness
   C. Thoroughness
   D. Calmness
   E. Patience
   F. Optimism
   G. Cleanliness
   H. Foresight

Unit II Consideration of anatomy from the viewpoint of the needs of the trainer

1. Osseous system
2. Muscular system
3. Syndesmology, with emphasis
   A. Shoulder joint
   B. Elbow joint
   C. Knee joint
   D. Ankle
4. Circulatory system
5. Nervous system
Unit III Consideration of some physiological phenomena

1. Circulation in exercise
2. Second wind
3. Value of warming-up
4. "Athletes" heart
5. Drinking during practice or a contest

Unit IV Physical examination of athletes

1. Discuss need for such examinations
2. Discuss in detail each step in the examination

Unit V Massage

1. State and discuss physiological effects of massage
2. Discuss and demonstrate various movements in massage, and the effects of each
3. Students practice on one another
4. Practical examination on massage

Unit VI Consideration of some therapeutic procedures, in addition to massage

1. Medical gymnastics
   A. Passive exercises
   B. Assistive exercises
   C. Active exercises
   D. Resistive exercises
   E. Static exercises
   F. Submarine exercises
   G. Corrective exercises

2. Hydrotherapy
   A. Short cold applications
   B. Long cold applications
   C. Short hot applications
   D. Prolonged hot applications
   E. Alternation of hot and cold applications
   F. Whirlpool bath
   G. Tub bath
   H. Sitz bath
   I. Percussion douche

3. Electrotherapy
   A. Radiant or luminous heat lamps
   B. Infra-red lamps
   C. Ultra-violet lamps
   D. Short-wave diathermy
   E. Galvanic current
   F. Electric "bakers"
Unit VII  Bandaging and taping

1. Bandaging
   A. Roller bandage for ankle and arch
   B. "Whitelocke" bandage for knee
   C. Spiral-reverse spiral bandage (Rules for)
   D. Head bandage
   E. Finger bandage
   F. Dressings

2. Taping
   A. Ankle "Gibney"
   B. Ankle football
   C. Arch support
   D. Sacro-iliac tape
   E. Knee tape
   F. Shoulder tape
   G. Rib tape
   H. Tape for pulled tendon of Achilles
   I. Tape for pulled "hamstring" muscles

Unit VIII  Diet in Athletics

1. Foods and functions of each
2. Minerals
3. Vitamins
4. Factors to consider in planning a diet
5. Factors affecting digestion

Unit IX  Athletic Injuries and Their Treatment

1. Prevention of athletic injuries - discuss various safety procedures
2. Inflammation -- symptoms
3. Fractures -- outline and discuss each type
4. Dislocations
   A. Lower jaw
   B. Clavicle-sternal end and acromial end
   C. Shoulder
   D. Elbow
   E. Fingers
   F. Wrist
   G. Knee -- also semilunar cartilages
5. Shin splints
6. Sprains and strains
   A. Sacro-iliac sprain
   B. Ankle sprain
   C. Strains of muscles
7. Contusions and "Charley Horse"
8. Bursitis and synovitis
9. Cramps of muscles
Unit X  Athletes Foot — Incidence: Medications

1. Causes
2. Prevention
3. Treatment
4. Discussion of medications used in the athletic training room

EDUCATION 408h  METHODS AND MATERIALS (PHYSICAL EDUCATION)

Unit I  How Can a Teacher Orient Himself to a New Teaching Situation?

1. Appraisal of the qualifications for a physical education teacher
   A. Personality
   B. Aptitude
   C. Social competence
   D. Versatility
   E. Character
   F. Professional attitude
   G. Credentials

2. Information on the community
   A. Cultural level
   B. Economic level
   C. Community organizations

3. Policies for the school system
   A. Point of view for the education program
   B. Policies for physical education and athletics
   C. Nature of administrative support for physical education
   D. Place of teacher organizations

4. Factors in the individual school
   A. Support from the principal
   B. Relationships between other departments
   C. Schedule of classes
   D. Requirements for physical education
   E. Facilities for physical education

5. Miscellaneous factors for consideration
   A. Relationship with pupils
   B. Relationship with other teachers
   C. Fitting into the school

Unit II  What Are The Characteristics of Students In Secondary Schools?

1. The process of interaction
   A. Nature and nurture
   B. Individual and group
2. Factors influencing growth and development
   A. Internal factors
   B. External factors
3. The development of self
   A. Growth is continuous
   B. Motivation follows basic urges and desires
   C. Humans are capable of creativeness
   D. Humans develop a set of moral values
   E. A human is a social being
   F. Individuals develop ideals including a self-ideal
   G. Growing up involves conflicts and choices
   H. Humans profit from experience
4. The concept of integration and adjustment
   A. Creation of tension and its resolution
   B. Classification of integrating and disintegrating responses
   C. Mechanisms employed in responses
   D. Aggression or withdrawal when cannot solve problems
5. The self at adolescence
   A. Body changes
   B. Velocity of growth
   C. Puberty
   D. Authority
   E. Vaccellation
   F. Special problems - health; work; recreation; relation to others
6. Growth characteristics at various age levels

Unit III What Constitutes Best Learning in Physical Education?

1. Characteristics of a good learning situation
   A. Physical environment - attractiveness; purposefully planned; functional
   B. Human relationships
   C. Organization for learning
   D. Methods and technics
2. Learning is purposeful self-activity
   A. Purposes of students
   B. Purposes of teacher, school, and community
3. Theories of learning
   A. Mechanistic viewpoint
   B. Organistic viewpoint
4. Learning in physical education
   A. Motor learning is unified
   B. Learning is related to maturity
   C. Skills must be acquired as meaningful acts
   D. Exploration and experimentation are essential
   E. Opportunity must be given student to discover for himself
   F. Transfer makes possible the mastery of more complex skills
G. Insight or closure must occur
H. Maturation is a time factor
I. Opportunity for practice must be provided
J. Repetition of new learning is essential
K. Motivation to learn must be developed

Unit IV How Are the Routines of Teaching Handled?

1. General routines
   A. Roll taking
   B. Showers
   C. Locker and shower supervision
   D. Towels
   E. Equipment issue
   F. Baskets and lockers
   G. Clothing
   H. Records
   I. Squad leaders
   J. Units of competition
   K. Safety practices
   L. Others

2. Special items
   A. Rainy day arrangements
   B. Co-educational activities
   C. Intramurals
   D. Tournaments
   E. Play-days
   F. Assemblies
   G. Open-house
   H. Guidance
   I. Home-room
   J. Related health instruction
   K. Others

Unit V How Are Units of Instruction Developed for Physical Education?

1. Relationship of units to objectives
2. Relationship of unit to scheduling
   A. Recommendations by state department
   B. Other methods of planning instruction
3. Basic processes in planning a unit of instruction
   A. Subject matter unit
   B. Experience unit
4. Factors which influence planning
   A. Student
   B. School and community
   C. Others
5. Parts of a unit of instruction
   A. Orientation
B. Setting objectives  
C. Planning periods  
D. Work periods  
E. Performance  
F. Evaluation  

6. The nature of a resource unit  
A. Objectives  
B. Facilities and equipment  
C. Suggested approaches to the unit  
D. Suggested learning experiences or major problems  
E. Suggested culminating activities  
F. Suggested evaluation procedures  
G. Bibliography  
H. Unit outline  

Unit VI  How Are Lesson Plans Constructed?  

1. Relation of lesson plan to the unit of instruction  
2. Purposes of lesson plan  
3. Difficulty in preparing daily lesson plans  
4. Items contained in lesson plan  
A. Specific objectives for the lesson  
B. Activities to achieve objectives  
C. Assignment of work  
D. Meaning of lesson  

Unit VII  What Methods or Techniques are Useful in Teaching Physical Education?  

1. Relation of method to the individual teacher  
2. Relation of method to the purposes of instruction  
3. Relation of method to the ability of students  
4. Other factors which influence the choice of method  
A. Time  
B. Type of school  
C. Facilities  
D. Funds  
E. Others  
5. Possible methods and their use in instruction  
A. Demonstration  
B. Explanation  
C. Reports  
D. Discussion  
E. Audio-visual aids  
F. Check-lists  
G. Field-trips  
H. Projects  
I. Written answers to questions  
J. Debates
6. Overview of special teaching techniques for specific activities
   A. Aquatics
   B. Conditioning exercises
   C. Individual sports
   D. Recreational games
   E. Rhythms
   F. Team games
   G. Track and field
   H. Tumbling and apparatus

Unit VIII How Can Class Control be Maintained in Physical Education?

1. Importance of meaningful activity
2. Types of problems and how to deal with them
   A. The "loafer"
   B. The "dub"
   C. The "showoff"
   D. The "bully"
   E. The "non-dresser"
   F. The "poor sport"
   G. The "dissenter"
   H. The "skipper"
   I. The "doubter"
   J. The "second guesser"
   K. The "Alibi Ike"
   L. The "slow-poke"
   M. The "prankster"
   N. The "practical joker"
   O. The "activity man"
   P. Others

Unit IX How Can Physical Education Teaching Be Evaluated?

1. Evaluation of instruction
   A. Relationship to objectives
   B. Techniques for evaluation - by student; by teacher
   C. Using results of evaluation for improvement
2. Awarding a mark in physical education
A. Principles to be followed
B. Selection of the basis for marks
C. Marking systems in practice
3. Policies for promotion and failure

PHYSICAL EDUCATION 435 NATURE, FUNCTION, AND ORGANIZATION OF PLAY

Unit I Nature of Play
1. Historical background of play
2. Traditional theories of play
   A. Surplus energy theory
   B. Instinctive urge theory
   C. Recreational theory
   D. Relaxation theory
   E. Recapitulation theory
   F. Catarrh isis theory
3. New interpretation of play
   A. Self expression
   B. Activity needs
4. Definition of play

Unit II Function of Play
1. Essential characteristics
   A. Activity
   B. Self-expression
   C. Interest and values
   D. Attitudes
2. Aims and objectives
   A. Adult play
   B. Child's play
   C. Play as work; as drudgery
3. Educational purposes of play
   A. Opportunities
   B. Experimentation
   C. Appreciations
4. Classification of play
   A. Play movements
   B. Play forms
   C. Play interests
5. Effects of age and sex
Unit III The Need for Play in Modern Life

1. Health and safety
2. Satisfying interests
3. Delinquency
4. Economic value
5. Rural play
6. Americanization

Unit IV Organization of Play

1. Facilities and equipment
   A. Safety
   B. Maximum use
2. Program
   A. Variety
   B. Safety
   C. Citizenship
3. Administrative policies
   A. Rules for use of facilities and equipment
   B. Safety and sanitation
   C. Records and reports
   D. Conduct and discipline
   E. Awards
   F. Public relations

Unit V The Playground Leader

1. Desirable characteristics
2. Desirable relationships
   A. Fellow workers
   B. Children and playground uses
   C. Employer
Unit I  Introduction

1. Science as a process
2. Biological science
   A. Man as an isolated individual
   B. Man as a link in generations
   C. Man as a product of evolution
   D. Man as a unit in a socio-economic complex
3. Scientific method
   A. Practical applications

Unit II  Characteristics of Living Organisms

1. Life as a dynamic equilibrium
2. Non-vital properties of life
3. Vital properties of life
4. Cell as the unit in function and structure
   A. Cellular respiration
   B. Cellular specialization
5. Tissues
   A. Epithelial
   B. Connective and supporting
   C. Muscle
   D. Nerve
   E. Fluid
6. Organs
7. Systems

Unit III  Maintenance of the Individual

1. Matter and energy
   A. Nature of matter
   B. Energy: transformation
2. Classes and functions of food
   A. Energy foods
   B. Growth and repair foods
   C. Regulating foods
   D. Food manufactured in plants
   E. Digestion as hydrolysis
   F. Digestive functioning and diffusion
3. Metabolism
   A. Basal metabolism
   B. Normal metabolism
   C. Heat production and regulation
4. Transport
   A. Blood: Plasma, formed elements, blood circulatory system, lymphatic circulatory system.
5. Excretion - (features and functions)
6. Coordination and adjustment
   A. Neuron system and functions
   B. Neuron system divisions
   C. Receptors and effectors
   D. Endocrine system

Unit IV Maintenance of the Species

1. Reproduction
   A. Male reproductive functioning
   B. Female reproductive functioning
2. Heredity and genetics
   A. Nature and history of genetics
   B. Transmission of traits
   C. Dominance and recessiveness
   D. Monohybrid cross
   E. Dihybrid cross
   F. Incomplete dominance
   G. Penetrance
   H. Sex-linked characteristics
   I. Mutations and cytoplasmic genes
   J. Human inheritance
   K. Inherited predisposition
   L. Congenital conditions

Unit V History and Life of the Earth

1. Theories of biological evolution
   A. Special creation
   B. Spontaneous generation
   C. Physico-chemical evolution
2. Geological history of the earth
3. Concept of organic evolution
   A. Evolution of plants
   B. Evolution of animals
   C. Evolution of man
   D. Evidence supporting concept of organic evolution
   E. Agreement with biblical record

Unit VI Interrelationships

1. Classification of animals and plants
   A. Binominal system
2. Relationship of organisms with physical environment
   A. Cycle of elements
   B. Major physical factors
   C. Habitats
3. Relationships between organisms
   A. Food chain
   B. Fluctuating balance of nature
4. Cooperation and competition
   A. Biotic succession
   B. Food chain
   C. Aggregations
   D. Symbiosis
   E. Parasitism
5. Biological conservation

Unit VII Human Populations
1. Concept of biotic potential
   A. Population curves
2. World population
3. Indigenous populations
4. Exotic populations
5. Population change and cultural effects
6. Factors affecting human populations
   A. Space
   B. Food
   C. Parasitism
   D. Climate
   E. Accidents
   F. War
   G. Heredity
7. Appraisal of future man
   A. Population
   B. Individual well-being
   C. Evaluation
   D. Integration

The above seven (7) units make up the three courses, Z 114, 115, and 116, Human Biology.

Z 321 ELEMENTARY HUMAN ANATOMY

Unit I Introduction
1. Introduction and terminology
2. General osteology

Unit II The Superior Extremity
1. Osteology of the superior extremity
2. General myology
3. Musculature of the superior extremity
4. General arthrology
5. Articulations of the superior extremity

Unit III  The Inferior Extremity
1. Osteology of the inferior extremity
2. Musculature of the inferior extremity
3. Articulations of the inferior extremity

Unit IV  The Cranium
1. The skull
2. Musculature of the head
3. Mandibular articulation

Z 322 ELEMENTARY HUMAN ANATOMY

Unit I  The Neck and Trunk
1. Osteology of the neck and trunk
2. Musculature of the neck and trunk
3. Articulations of the neck and trunk
4. General angiology, including heart and vessels
5. General neurology and different parts of the nervous system

Unit II  The Vessels and Nerves
1. Vessels and nerves of the head
2. Vessels and nerves of the neck and trunk
3. Vessels and nerves of the superior extremity
4. Vessels and nerves of the inferior extremity
5. Vessels and nerves of the thoracic and abdominal viscera

Unit III  Splanchnology
1. Respiratory system
2. Digestive system, including teeth
3. Urogenital system

Z 323 APPLIED HUMAN ANATOMY (KINESIOLOGY)

Unit I  Introduction
1. The framework and joints of the body
2. Histology of muscle
3. Methods of studying muscular action
4. Review of the nervous system and a consideration of muscular control

Unit II Mechanical Principles and Movement

1. Mechanical principles. (Note: considerable time is spent on this, including actions of levers, etc. The students are given many problems to solve in this phase of the course.)

2. Movements of various parts of the body are considered from the mechanical and kinesiological analysis:
   A. Shoulder girdle
   B. Shoulder joint
   C. Elbow joint
   D. Hand
   E. Hip joint
   F. Knee joint
   G. Ankle and foot
   H. Spinal column
   I. Breathing movements

Unit III

1. A study of posture, - good and pathologic; in this work special emphasis is placed on the spinal column and the feet, including many remedial or corrective exercises.

Unit IV

1. Students select activities which they analyse and present to the class, with thorough demonstration of each step in the performance. Each presentation is followed by class criticisms and discussions.

Z 331 PHYSIOLOGY

Unit I Tissues and Muscle

1. Protoplasm and life processes
2. The tissues
3. Contractility: Muscle physiology
4. The phenomenon of contraction

Unit II The Nervous System

1. Control of tissue activity
2. Conductivity: nerve physiology
3. Reflex actions: the spinal cord
4. The brain
5. The autonomic nervous system
6. Properties of nerve fibre
7. Structure and general properties of the nerve cell

Unit III The Special Senses
1. The receptors, or sense organs
2. The skin
3. Cutaneous and internal sensations
   A. Sensations of taste and smell
4. Dioptrics of the eye
5. Properties of the retina
6. Binocular vision
7. Physiology of the ear
8. The endocrine glands
   A. Hormones or internal secretions

Z 332 PHYSIOLOGY

Unit I Blood and Circulation
1. Blood: the middle man
2. The mechanical factors of blood circulation
3. The heart
4. Vasomotor control
5. Capillaries and tissue fluid formations
6. The translocation of materials

Unit II Respiration
1. Gas exchange
2. Respiration

Unit III Digestion and Metabolism
1. Foods
2. Digestion
3. Enzymes or ferments
4. Absorption
5. Movements of the alimentary canal
6. Protein metabolism
7. Carbohydrate and fat metabolism
8. Water and mineral metabolism
9. Energy metabolism
10. Daily food requirements and vitamins
Unit IV  Reproduction; Renal Secretion; Body Temperature

1. Reproduction
2. Female reproduction organs
3. Male reproduction organs
4. Renal secretion
5. Regulation of body temperature

Z 336  APPLIED HUMAN PHYSIOLOGY

Unit I  Circulation

1. Study of the heart and its action
2. Study of the pulse:
   A. Factors influencing pulse rate
   B. Characteristics of the pulse wave
   C. Measuring sequence and time of various phases of the heart cycle
3. Blood pressure: tests of physical condition
4. Minute volume of circulating blood
5. Blood composition and functions

Unit II  Respiration

1. Various respiratory volumes
2. Factors affecting minute volume of breathing

Unit III  Physiology of Exercise

1. Muscle physiology in exercise
2. A study of work, energy requirement, oxygen debt, and mechanical efficiency
3. The effects of various loads of work on the individual, i.e. pulse rate, respiratory rate and volume, and blood pressures. Note: This work is done on a bicycle ergometer which is calibrated to measure very accurately loads of work between 630 and 17,100 feet pounds per minute
4. Various tests of physical condition
5. Effects of various activities on bodily weight
6. Conditions affecting the temperature of the body

EDUCATION 311  SECONDARY SCHOOLS IN AMERICAN LIFE

Unit I  Opportunities in the Field of Education

1. Responsibilities of the teacher
A. For the welfare of pupils
B. Obligation in the area of personal development
C. Social responsibility

2. The qualifications of a teacher
A. Intelligence and knowledge
B. Health
C. Personality traits
D. Desire to teach and liking for children

3. Types of positions
A. By level of education
B. By type of work
C. Subject combinations for high school teachers

4. Rewards of educational workers
A. Monetary returns
B. Tenure
C. Retirement and sickness provisions
D. Intangible rewards

5. Professional organizations and literature
A. National Education Association
B. State Education Associations
C. Professional literature

6. Entering and growing in the profession
A. Educational preparation
B. Teacher placement
C. Inservice education
D. Graduate specialization

Unit II The Development of the Secondary Education Program in the United States

1. The American School System Today
A. Organization of present school system
B. Administrative Organization
C. Current tendencies in American Education
D. Basic ideas of American Education

2. Influences affecting the American School System
A. Social-Economic influences
B. Government influence
C. Non-government influence
D. Traditional influences
E. Professional organizations

3. Needed changes in the American School System
A. Needed administrative changes
B. Equalization of financial support
C. Extension of school services in the community
D. Provision for exceptional children

Unit III The Backgrounds of Secondary Education in Modern America

1. Secondary School provisions during the Colonial Period
A. Transplantation of ideas and practices from Europe and England
B. Secondary Education a public concern in New England only
C. Secondary Education as a private concern

2. Provisions for Secondary Education during the National Period, to 1900
   A. Economic, political, and social characteristics of the new nation
   B. Non-public secondary schools were further developed
   C. High Schools, an American contribution, were organized as part of the local or state systems

Unit IV  The Place of Education in American Democracy

1. How does society educate?
   A. Is the social environment educative?
   B. What institutions of society play a part in the educative process?
   C. The school - special province of the school

2. What is the purpose and significance of education in American Democracy?
   A. The democratic process
   B. Function of the school in society
   C. The objectives of education
   D. Critical factors in the attainment of educational purposes

3. What is the unique function of education in American democracy?
   A. Democracy and individualism
   B. New interests and ideals

4. What should be the education of free men in American democracy?
   A. Democracy as a great social faith
   B. Freedom and control in a democracy
   C. The government, the teacher, and the people

5. What are the objectives of secondary education?

Unit V  The Curriculum of the Secondary School

1. Concepts of the curriculum
   A. The definition of curriculum

2. Methods of curriculum study and revision
   A. The "approach method"
   B. The committee method
   C. Experimental methods of individual schools or systems
   D. The continuous study method involving various media

3. The secondary school curriculum in Oregon
   A. The state program as a part of a national pattern
   B. The Oregon state program
4. The idea of evaluation as a curricular enterprise
   A. The relationship between the aims of secondary education and the nature of the curriculum

Unit VI The Pupil Personnel Program

1. Evidences of current needs for a personnel program
   A. Broad changes in social and educational conditions
   B. Education or curricular maladjustment
   C. Vocational maladjustment
   D. Social and emotional maladjustment
   E. Youths' desire for guidance

2. Nature and scope of guidance
   A. Origin and nature
   B. Scope - essential activities included

3. Aspects of guidance
   A. Analysis of the individual
   B. Informational services
   C. Counseling
   D. Placement
   E. Follow-up of school leaver

4. Approaches to a pupil personnel program
   A. Co-curricular adjustments
   B. Administrative organization

Unit VII The High School as a Community Agency

1. The school as a community agency
   A. Relationship of teachers' and administrators' salaries, capital outlay, supplies, etc. to local tax structure
   B. Meeting the needs of the community
   C. The role of the school in adult education
   D. The school as the hub of the community

2. Utilizing community resources in teaching
   A. Educational values of community
   B. Methods of obtaining information about the community

3. Public relations
   A. Interpreting the school to the community
   B. Interpreting the needs of the school to the community
   C. Interpreting community needs which can be met through the schools to the community

Unit VIII Problems Faced by Secondary Education

1. Education for civic responsibility
   A. Emphasis on social and political activities by study and by actual participation in local affairs
   B. Appreciation for the place of the individual in a democratic form of society
C. Emphasis on the importance of the home and family life
D. World citizenship

2. Universal Education
A. Understanding the importance of and need for universal education with its problems of education for leadership and fellowship
B. Appreciation of and meeting the problem of compulsory education
C. Appreciation of the need to be able to read with comprehension and to be informed regarding home and world affairs

3. Health and sanitation
A. Personal health, physical and mental
B. Community, and national health
C. Nature and ways for providing for sanitation

4. Safety education
A. Safety in the home
B. Safety on the job
C. Community safety with reference to fires, floods, transportation

5. Conservation of resources - both human and natural
A. Knowledge of how resources are expended
B. Recognition of the need for conservation
C. Knowledge of and ability in conservation measures

6. Community Educational agencies - other than the school or school-related agencies
A. Movies
B. Radio
C. Church
D. Service organizations
E. Appreciation of how to utilize these agencies to the fullest extent for the benefit of the school population and of the community

7. School-related agencies
A. P.T.A.
B. Scouts
C. Four-H
D. F.F.A.
E. Understanding the nature of and possible contributions of such organizations

8. Vocational efficiency
A. Realization of the need for an expanded background and basis for specific vocational training
B. Recognition of individual needs and vocational interests

9. Community service
A. Appreciation of and willingness to be ready to meet and assist in any situation of significance and value to the community
B. Provision for evening classes for adults
Unit IX  The Teacher and Her Job

1. The teacher and the profession
   A. Professional ethics
   B. Professional growth

2. The teacher and the system
   A. Relationship with the administration
   B. Relationship with other staff members
   C. Relationship with pupils
   D. Relationship with the community

3. The teacher and personal health
   A. Physical health
   B. Mental health

EDUCATION 312  EDUCATIONAL PSYCHOLOGY

Unit I  Introductory Lecture

1. Definitions
   A. Psychology
   B. Education
   C. Educational psychology

2. General principles
   A. Can never replace thought and experience in a satisfactory manner
   B. Teacher's first duty: understanding the individual in the light of general principles

3. Social and educational attitudes toward children
   A. Children were generally exploited until the last fifty years
   B. Reversal of attitudes during the last twenty years

4. Foes of good schools and good education
   A. Formalization
   B. Others: selfishness, laziness, arbitrariness, and domineer attitudes

5. Personal relationships
   A. Teacher most important part of school's equipment
   B. Pupils are not part of the equipment
   C. Principals and superintendents function to assist teachers

6. Teaching responsibilities
   A. Insistance that pupils learn to plan and act for themselves
   B. Role of different approaches for individual differences
   C. The greatest art of the capable teacher: motivation

7. The importance of lesson plans to teachers and pupils
   A. Save time, confusion of thought, wasted effort, resentment
   B. Should bring about increased orderliness and more extensive learning
C. All lesson plans have some value - none is a panacea
D. All lesson plans require effort and thought to be effective
E. A set of lesson plans is never quite complete

8. A curve of growth of education over the centuries
9. Present hysteria for speed in the schools is poor pedagogy
   A. Neglects the rate of maturation of pupil's nervous system
   B. Creates resentment and personality problems
   C. Leaves a gap between the end of school period and the beginning of employment

10. Methods of research in educational psychology
    A. Introspection
    B. Questionnaires
    C. Standardized tests
    D. Case studies
    E. Interviews
    F. Anecdotal records
    G. Laboratory
    H. Classroom

Unit II Instincts and Emotions

1. The tabula rasa theory
2. The theory of predestination
3. Controversy over the relative influences of heredity and environment
   A. Implications for education, sociology, government
   B. Different beliefs of percentage of influence
   C. Heredity - defined
   D. Environment - defined

4. Development of instincts in the human race
5. Social organization and the instincts: antagonism
   A. Necessity of modifying instincts
   B. Instinct - defined

6. Instinct-emotions
   A. Energizing forces
   B. May be general or non-specific in its expression
   C. Complexity of the expressions of instincts-emotions
   D. Reflexes - defined
   E. Capacities - defined
   F. Innate energy - defined
   G. The theory of recapitulation of the instincts-emotions
   H. The dynamic theory of instincts-emotions
   I. The transitory theory - the saltatory theory
   J. The theory of catharsis of instincts
   K. Sublimation of the instincts-emotions
L. Interference with the instincts-emotions - implications

7. Suggestion
   A. Difficult to define
   B. Suggestibility - defined

8. Natural versus artificial punishment

9. "All learning is the modification of instinctive behavior" - interpretation

10. Understanding of the instincts-emotions
    A. Teacher-pupil relationships
    B. Motivation
    C. Most useful instincts-emotions in the classroom: competition, desire to excell, rivalry, desire for public approval, submission to social approval, co-operation, gregariousness, collecting, play, and humor

Unit III Variations in Human Capacities

1. No satisfactory list of these variations
   A. Allport's "Trait Names"
   B. All persons have the same qualitative make-ups, but vary quantitatively

2. The theory of compensation

3. The theory of compensatory effort

4. Baldwin's seven ages of children

Unit IV General Principles of Learning

1. Definitions
   A. Percept
   B. Concept, appercept, apperception
   C. Apperceptive mass

2. The use of minimal or partial clues in perception and apperception

3. The importance of analysis, organization, and synthesis in observation and report

4. Reports of children
   A. Accuracy and extensiveness improve with age
   B. Especially subject to the influence of suggestion

5. Factors that control the accuracy of recitations, reports, or testimony

6. Preperception or mental set
   A. Organization of mental and physical activities
   B. Effectiveness dependent upon correctness of anticipation
   C. Emotional set
   D. The influence of the quality of the sense organs

7. The so-called laws
   A. Law of effect
   B. Law of readiness
C. Laws of use
D. Laws of primacy, frequency, vividness or intensity, and recency
8. Conditioning - use of the term and meaning
9. Insight - defined
10. Complex habit or idea - defined
11. Dunlap's experiment
12. Emotional learning and character development
13. The curve of learning
   A. Quadrant used in showing the curve
   B. Convex-up or concave-up curves of learning
   C. The five parts of the conventional curve of learning
   D. The smoothing of a curve of learning
   E. The initial rapid rise
   F. The causes of plateaus
   G. The final leveling-off
   H. The hierarchy of habits
14. Plateaus
   A. Defined
   B. All complex curves of learning probably contain plateaus
   C. In simple learning, there are no plateaus
   D. A plateau exists if one learns the more difficult things first
15. Length of practice periods and distribution of practice periods
16. The whole and part methods of learning
   A. The advantages of the whole method are the disadvantages of the part method and vice versa
   B. The best method is a combination of the two
17. Speed and accuracy of performance
   A. Seeking a correct balance between the two
   B. Early emphasis on speed
18. Different emphasis of different learning processes
19. Teachers
   A. Should begin their teaching at the point where the pupils are and go forward only as fast as the pupils can go
   B. Should try to present the material in the forms in which it will be used later
   C. Showmanship on the part of the teacher is legitimate and advantageous
20. Associations made with the intention of their being remembered
21. Interest and attention - exact relationships unknown
22. Steps to follow in problem-solving, reasoning, or reflective thought
23. Geniuses - learning
24. Periods of practice
   A. In simple skills
B. In complex skills

25. The point of learning
   A. Used in experiments on forgetting
   B. Overlearning

Unit V Forgetting

1. Recognition, recall, and retention
2. Methods of measuring the amount of forgetting
   A. Repetitions method
   B. Promptings method
   C. The percentage saved method
3. Forgetting
   A. How measured
   B. Variations in the curve of forgetting
   C. Spacing of reviews to prevent forgetting
   D. Narrative recall versus interrogative recall: the influence of suggestion
4. Effect of summer vacations
   A. Material learned the previous school year
   B. Actual improvement - reasons
5. Memory or mnemonic systems: their values and weaknesses

Unit VI Formal Discipline or the Transfer of Training

1. Definitions
   A. Formal discipline: disputed value
   B. Transfer of training
2. Transfer of training
   A. May be general or specific
   B. May be positive or negative
3. Difficulty in measurement of the amount and the direction of transfer of training
   A. Identification of the common elements is difficult
   B. Identification of the common skills is difficult
   C. It is hard to define training as belonging to any one task
   D. Both the identical elements and the general attitudes may be dormant for a considerable time before they become operative in the new skill
4. The values of any school subject or of any task may be defined as
   A. Disciplinary - defined
   B. Cultural or interest - defined
   C. Vocational or economic - defined
5. Subjects in the high school curriculum
   A. Criticisms that have been directed at Latin apply to all other subjects
   B. In practice, most high school and college subjects are cultural
C. Classification of subjects presupposes that the pupil's lives will be spent in certain fields of effort
D. Importance of "selling" a subject to the pupils
E. The value of other features of teaching
F. Any subject is vocational when carried to its logical conclusion
G. Great fault of the older classicists and the extreme vocationalists

6. The problem of which values to emphasize
   A. Is one of proportion
   B. Will vary from community to community
   C. Should be based on the future activities of pupils

7. Summary of unit

Unit VII Motivation

1. Definitions
   A. Motivation - creation of attitudes: attitudes defined
   B. Incentive
   C. Motive

2. The role of rivalry
   A. Individual
   B. Group
   C. Against one's own record

3. Praise vs reproof
   A. Elements of novelty and of individual differences

4. The values and dangers of tangible and intangible rewards

5. Individual subjective judgement of one's own accomplishments
   A. Most widely used of the great Jesuit schools of the middle ages was competition
   B. Grades or marks as incentives and as punishments
   C. Personality of the teacher - probably the most important factor in motivation

6. Fatigue in the classroom - boredom and monotony

Unit VIII Attention and Interest

1. The three kinds or degrees of attention
   A. Involuntary or passive
   B. Voluntary or active
   C. Nonvoluntary or secondary passive

2. Features of attention
   A. Focusing of consciousness
   B. Measurement is unsatisfactory at present
   C. Interest - influences the direction of attention
   D. Range of attention
E. Span of attention
F. Duration of attention
G. Simple objects - holding attention
H. Background knowledge
I. Usefulness of object or idea - stimulator of interest

3. "Meaning"
A. Primarily - "use to me"
B. Secondarily - "use to you"
C. Third - fragmentary or abortive kinesthetic sensations and percepts

Unit IX Measurement in Education

1. The conscientious teacher desires measurements in order to
A. Know the amount he is accomplishing with the materials with which he is working
B. Diagnose the strengths and weaknesses of his work
C. Compare different classes or sections of the same class

2. Finding the:
A. Average
B. Mode
C. Median
D. Mean
E. Average deviation
F. Standard deviation

3. Measuring intelligence directly?

4. Reasons for desiring to measure mental ability

5. Types of intelligence tests
A. Laboratory types
B. Experimental types

6. Definitions
A. Mental age or M.A.
B. Intelligence quotient or IQ
C. Educational age or E.A.
D. Educational quotient
E. Accomplishment quotient

7. Diagnostic, prognostic, and survey tests of achievement

8. Types of statement s or items for objective classroom tests
A. True-false in various forms
B. Completion or verbal-gap
C. Multiple choice, multiple response, or single choice
D. Matching or pairing
E. Analogy
Unit X  Teacher's and Pupil's Personalities

1. Deficient personalities - percent of beginning teachers who fail
2. Development of successful personality
   A. There are few rules for development
   B. There is little agreement on standards of desirable personality
3. Wickman's study of teachers' ratings of pupil offenses
4. Relative amounts of cheating among the bright, the average, and the dull
5. Increase in the number of insane

Unit XI  Marks and Grades

1. Necessity for marks
   A. For the evaluation of pupils' work
   B. Failure of plus and minus or pass and fail methods
2. Marks are used in:
   A. Grade placement
   B. Elimination of unsuitable pupils
   C. Honors
   D. Recommendations for scholarships and jobs
   E. Judgments of teachers' values to the school system, etc.
3. Recommended percentages of grades
4. Teachers should use the grade curve, not let the grade curve use them
5. Factors to be considered in the percentages in a grade curve
   A. The size of the class
   B. The school grade
6. The influence of tradition in the percentages of grades given
7. Variations in the distribution of marks should be studied:
   A. In the same school
   B. In different schools in the same subjects
   C. In the terms of averages
   D. In the terms of ranges
   E. In comparison with standardized tests
8. Plans for making pupils notice the corrections on their returned papers
9. The value of the careful marking of a few papers over the jaded marking of many papers
10. An experienced teacher should check his own grades
    A. Against standardized tests
    B. Against his own re-marking
    C. Against re-marking by other teachers
    D. Marking papers whose writers are identified only by numbers
11. Improvement of the present situation
A. Prevent weakest pupils from entering high school and college by means of tests and counseling

EDUCATION 313 PRINCIPLES OF TEACHING

Unit I Introduction

1. Basic Psychological Factors
   A. Learning as the modification of behavior
   B. Learning is purposeful
   C. Learning activities must be motivated
   D. Learning experiences must be meaningful

2. Objectives of Secondary Education
   A. Educational Policies Commission
   B. Planning for All American Youth: "All youth need to ..."

3. The high school population
   A. The nature of the high school population
   B. Basic needs of adolescents
   C. Meeting individual differences
   D. Studying the individual student

4. Personal characteristics of the teacher in operation
   A. Desire to teach
   B. Sound general education
   C. A developed special field
   D. Interest in community affairs
   E. Personality characteristics (A representative list of ten)
   F. Attention to personal and professional growth
   G. Result of the above: Constructive leadership and motivation of learning

5. Characteristics of the teaching-learning situation
   Note: The points below are not considered to be all-inclusive
   A. Teacher identification with pupils
   B. Working out and stating purposes with clarity
   C. Teacher-pupil cooperation
   D. Sensitivity to student learning difficulties
   E. Resourcefulness in planning and executing
   F. Teacher familiarity with subject matter

Unit II Organization of Teaching-Learning Situations

1. General teaching patterns
   A. Traditional teaching
   B. Unit teaching
   C. Common elements in the teaching patterns

2. Organization of units
A. Types of units
B. Subject-matter unit outline
C. Experience unit outline

3. Material that should be included in a unit outline
   A. Title of unit
   B. Introduction
   C. Suggested approaches to the unit
   D. Problems to be considered with a list of understandings, desirable changes in pupil behavior, activities, and references
   E. Resource materials
   F. Evaluation of the purpose of the unit
   G. Possible new units to follow

Unit III Directing the Learning Situation

1. Planning
   A. Teacher's overview
   B. Teacher's preview
   C. Pupil-teacher planning

2. The assignment
   A. Characteristics of a good assignment
   B. Sharing responsibilities - individual differences
   C. Some suggestions in specific fields for providing for individual differences
   D. Arranging the order of activities

3. Classroom procedure
   A. Materials
   B. Teacher-pupil cooperative planning to meet individual needs and interests
   C. Teacher stimulation of study
   D. Teacher supervision of study
   E. Taking field trips
   F. Discussion
   G. Review and summary

4. Evaluation
   A. Worthwhile learning results in basic changes in attitudes and ideals, abilities, habits and skills
   B. Types of evaluation instruments

Unit IV Evaluating and Reporting Pupil Progress

1. Evaluation of pupil progress
   A. Definition of terms
   B. Purposes of evaluation
   C. Phases of evaluation
   D. Procedures in evaluation

2. Reporting pupil progress
   A. Diagnosis of learning difficulties
   B. Marks and marking systems
C. Reporting pupil progress to parents

3. Problems and trends in evaluating and reporting pupil progress
   A. Special problems
   B. Trends in evaluating and reporting progress

Unit V Classroom Management and Control

1. The physical plant
   A. What the well-furnished classroom will possess
   B. Every building should have available for use in classroom teaching - A/V apparatus; machines
   C. Although no teacher is expected to be an expert on heating, lighting and ventilation, she should have enough knowledge about these physical problems to maintain adequate and efficient classrooms

2. Routine administration
   A. The first day
   B. Daily routine in the classroom
   C. Teacher relationships

3. Teacher-pupil relationships
   A. In the field of teaching, motivation is that aspect of the teacher-pupil situation that gives meaning, purpose and direction to the objectives of education
   B. One important method of approach to the general problem of teacher-pupil relationships is to create in the child a desire to learn by a strong appeal to his active interests
   C. Individual differences are present in every classroom
   D. Remedial instructions can be defined as that part of the teaching-learning situation which helps the child to improve habit and skill, knowledge, attitudes, interests and ideals

PSYCHOLOGY 207 GENERAL PSYCHOLOGY

Unit I What is Psychology, Its Aims, and Procedures

1. Technical vocabulary
2. Present knowledge of human behavior
   A. Psychology defined, aims and procedures
   B. How the structure of the body influences behavior
   C. Principles of early development of human behavior
   D. How can we modify our behavior and retain or remove these changes in behavior?
E. The nature of the mainsprings of behavior and how they develop
F. Why we develop emotional responses and how this behavior can be utilized
G. The characteristics and development of conscious experience
H. How we use our experience to solve problems
I. Mental abilities you have developed and how these may be measured
J. How does your characteristic integration of mental and physical traits adjust to your environment?

3. Making human behavior scores meaningful
   A. Average - mean
   B. Mid-score - median
   C. Range
   D. Frequency distribution table

4. Human adjustment difficulties
   A. Indications of class responses regarding human adjustment difficulties
   B. Relationship between aims of course and the solution of many of our difficulties

5. Different interpretations of human responses

Unit II What Are the Origins of Human Behavior and Principles of Early Development

1. Technical vocabulary
2. The human individual's basic behavioral development
   A. Native (inborn) tendencies
   B. Mechanisms of heredity
   C. Maturation of inherited capacities
   D. Order of occurrence of living processes of the organism
   E. Developmental sequence of mass movements of the organism
   F. Random pattern movements
   G. Reflex behaviors
   H. Tropistic behaviors
   I. Energetics of activity
   J. Instinctive behavior
   K. Feelings in the human organism
   L. Sensations
   M. Images
   N. The original nature of man

3. How does heredity affect our behavior?
4. Heredity and environment
5. Maturation and learning
Unit III  How Does the Structure of the Human Body Influence Our Behavior

1. Technical vocabulary
2. The neuromusculature system
3. Receptor mechanisms
   A. Exteroceptors
   B. Interoceptors
4. Neural mechanism
   A. The elements or units of the nervous system
   B. The structure and function of major divisions of the nervous system
5. Effectors mechanisms
   A. Striped muscle
   B. Cardiac muscle
   C. Smooth muscle tissue
   D. Glandular tissue
   E. Endocrine glands
6. The influence of gross anatomical structures on behavior
7. Sensory functions - the reception of stimuli
8. Motor equipment of the human organism
9. Neural functions - the integrative mechanism in man
10. Application of the principles of the neuromusculature

Unit IV  How Can We Modify Our Behavior and Retain or Remove These Learned Responses?

1. Technical vocabulary - "learning, remembering and forgetting"
2. What is learning?
3. An analysis of learning college subject matter
4. Retaining and recalling subject matter
5. Remembering and forgetting
6. Principles of learning, remembering and forgetting

Unit V  What Is the Nature of the Mainsprings of Behavior and How Do They Develop?

1. Technical vocabulary - motivation
2. Development of interests
3. What does the student at Oregon State want?
4. Visual instruction - modification of organically aroused behavior
5. Motives and morale
6. Unconscious motives
7. Conflict to motives
8. Adjustment mechanisms of the individual
9. Emotional behavior and its control
PSYCHOLOGY 208 GENERAL PSYCHOLOGY

1. Imagining and dreaming
2. Thinking
   A. Concepts
   B. Individuality in thinking
3. Creating
   A. Sensitiveness
   B. Creative skills
   C. Factors favorable to creativeness
   D. The creator
   E. The education of creativeness

Unit II The Development and Measurement of Mental Abilities

1. Intelligence and its measurement
   A. Individual testing
   B. Group testing
   C. Performance tests
   D. The distribution of intelligence
   E. Genetic and environmental background
   F. The theory of intelligence
2. The pattern of abilities
   A. Testing abilities
   B. Aptitude and achievement testing
   C. Some statistical terms and ideas
3. Personality measurement
   A. Verbal report methods
   B. Behavior tests
4. Projective methods
   A. Projective tests with children
   B. Projective tests with adults
   C. Picture tests
   D. Handwriting
   E. The interpretation of projective methods
5. Social attitudes and their testing
   A. Attitudes - defined
   B. Attitude tests
   C. Attitude and personality
   D. Public opinion research

Unit III Developing a Concept of Self and What is Done to Enhance or Defend this Self-concept

1. The development of "the self"
   A. The self and social perspective
   B. "Egocentrism", "realism", "participation", "animism", "moral judgement", "reciprocity", "equity"
2. Assertion of the self
   A. Goals the individual strives for - physical adequacy, possessions, status, and power
   B. The means used for assertion of the self
4. Defense of the self
   A. Devices by which each of us defends the self
   B. Super-ego
   C. Individual differences in the use of psychoanalytic mechanisms
   D. Extroversion and introversion
   E. Compensation for inferiority
   F. Education and therapy as roads to self-knowledge

5. Conflict
   A. Existence of conflict
   B. Symbols
   C. Frustration
   D. Coping with conflict
   E. The will

Unit IV The Process of Adjusting Individual Characteristic Integration of Mental and Physical Traits to the Personal and Social Environment

1. Personality patterns
   A. Interrelation between personality traits
   B. "Sizing people up"
   C. The continuity of traits and their interrelations
   D. Personality types
   E. A place for types

2. Culture and the individual
   A. Ethnological evidence
   B. Social roles
   C. Study of gestures
   D. The psychological results of our history

3. Oneself and others
   A. Knowing oneself
   B. Mapping one's own education
   C. Understanding others