

TEACHING FOOD SERVICE ADMINISTRATION
AT THE COLLEGE LEVEL

by

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CHAPTER I

INTRODUCTION

Food service during the past two decades has emerged as a large enterprise in the business world. In conjunction with this change much emphasis is now being placed upon management in the administration of a food service as in the administration of any large business.

As important as a good foundation in foods, nutrition and dietetics is to the success of a dietitian, proficiency in this area alone is no longer an adequate background for the home economics graduate who plans to pursue a career in the food service field. A foundation in foods and nutrition is essential but must be supplemented by a strong background in all of the subject matter areas involved in management and administration. That the various college curricula include courses in food service administration which prepare the student for management positions has thus become imperative.

Review of Literature

In order to study any educational program one must begin with definite thoughts and concepts concerning a philosophy of education. The educated man has been characterized by Nicholas Murray Butler as having:

Correctness and precision in the use of the mother tongue; refined and gentle manners . . . an outward expression of intellectual and moral convictions; the power and habit of reflection; the power of growth; broadened views, widened sympathies, deepened insights - the accomplishments of growth; efficiency (or) the power to do . . . knowledge is not power . . . the habit of making knowledge power is efficiency (1).

The home economics curriculum must be designed to educate first the individual, then the specialized person in order to develop graduates able to cope with the challenges of the present and future (2). Those in home economics who are concerned with the dietetics curriculum need to characterize the educated dietitian, or food service manager, and evaluate the goals toward which the curriculum, teaching and clinical experience programs are to be directed.

Food service administration courses which develop the student's ability in organization take a leading role (3). The objectives of such courses are well summarized as follows:

1. To develop an understanding of the fundamentals of organization and the principles of scientific management as they apply in the administration of a food service.
2. To develop an understanding of the problems involved in the operation of a food service.
3. To develop an ability to work cooperatively with others in coping with and solving problems involved in the operation of a food service.

A thorough understanding of scientific management is the tool with which dietitians can put into use the other two tools of their professions: food and nutrition (4). Teaching the student to accept responsibility is of major importance, and since responsibility entails leadership, education in food service administration must be for leadership. Ability in decision making and problem solving also accompany responsibility. The student must be taught to anticipate

problems and be ready to make appropriate decisions (5). The student in food service administration courses needs to be taught to recognize a problem, and to put analysis and techniques together toward its solution (6).

Personnel management and human relations are of vital importance in the education of the food service manager. In regard to human relations in administration, Dr. Jack R. Gibb says:

Every professional group is becoming increasingly aware of the problems of working with people. The dietitian is no exception to this rule. . . it becomes more necessary for her to learn to relate to people as persons and not as tools in getting the job done. . . The dietitian administrator, in spite of her many tensions and strains, must come to see that the world is made up of people and not regulations (7).

The food service administrator's executive functions are divided by one author (8) into five major areas: (a) policy making, (b) organization, (c) execution, (d) coordination, and (e) public relations.

Other subject matter areas which demand attention in the education of the food service administrator are: (a) menu planning, (b) purchasing, (c) cost control, (d) work simplification, (e) sanitation, (f) equipment and (g) quantity food production and service.

All administrators must have a thorough understanding of cost control and the dietitian, in the role of a food service administrator, is no exception to this rule. She must have a foundation in the fundamentals of bookkeeping and accounting, particularly as applied to food cost control problems applicable to either large or small scale food production and service (4). One study (9) shows that the food service administrator needs to effectively utilize principles of work simplification and skillful menu planning as tools in dietary cost control.

In order to control costs, the food service administrator must have the ability to manage and coordinate the various aspects of menu planning, purchasing, storage, food preparation and food service (10). The knowledge and use of purchasing specifications and standards are also essential for effective cost control.

A recent study (11) of the food service administration curriculum revealed that employers in the food service field thought that there was an inadequate academic coverage of subject matter areas related to managerial skills. Specifically, these areas were purchasing, quantity food production and maintenance of the physical plant and equipment. Another study (4) reveals weaknesses in the dietetic graduate as follows:

1. Lack of preparation in managerial responsibilities.
2. Lack of the basic fundamentals of scientific food production.
3. Lack of awareness of the importance of cost control.
4. Lack of adequate preparation in English.

Summary of Literature Review

Recent literature emphasizes the importance of the college curriculum in institution administration preparing the student in all areas of management; especially in the areas of leadership and problem solving, financial management, human relations, purchasing and principles of food production. Also revealed in recent literature is the growing need for revision of institution administration programs at the university level in order to assure the graduate a firm foundation in the above named areas of management.

Purpose

The purpose of this study was to study the food service administration courses taught at the Virginia Polytechnic Institute and at other universities meeting the American Dietetic Association requirements for graduation, and to develop a program which would give the student an adequate basis for further development into a competent food service manager able to meet the demands of this position.

The specific objectives of this study were:

1. To determine the needs which this program should fill.
2. To determine the most effective method of presenting subject matter.
3. To determine the best laboratory situation in which the student can apply principles and theory.
4. To develop an effective outline of study to be used.
5. To evaluate the course of study developed.

Procedure

All information and data included in this study were obtained from the following sources:

1. Questionnaires prepared and sent to college faculty in home economics and directors of approved dietetic internships.
2. Review of recent literature.
3. Evaluation of the institution administration program developed by the author.

CHAPTER II

A SURVEY OF INSTITUTION ADMINISTRATION PROGRAMS IN COLLEGES AND UNIVERSITIES AND PROGRAMS RECOMMENDED BY DIRECTORS OF INTERNSHIPS

Questionnaires

The author wished to obtain information concerning institution administration programs in other colleges and universities. She also wished to obtain recommendations from directors of approved dietetic internships concerning the college preparation of the student planning a career in the food service field. In order to obtain this information, the author prepared questionnaires which were sent to land grant colleges offering institution administration programs of high standing and to directors of selected approved dietetic internships. Copies of the questionnaires are included in the appendix. The questionnaires sent to the land-grant colleges requested the following information:

1. Titles of institution administration courses taught with corresponding credit hours, lecture hours and laboratory hours.
2. Purposes and objectives of these courses.
3. Course content with topic titles and corresponding lecture and laboratory hours.
4. Type of laboratory situation for institution administration experience.
5. Evaluation of the laboratory situation.
6. Degree of student responsibility in the laboratory.

7. Education, training and experience of staff members who teach institution administration and who supervise the laboratory.
8. Evaluation of the laboratory supervision.
9. The quantity foods courses taught with corresponding credit hours, lecture hours and laboratory hours.

The questionnaires sent to the directors of internships requested essentially the same information, the major difference being that recommendations concerning the college program in institution administration were requested.

Discussion of Results

Of the 30 questionnaires sent to the land grant colleges 13, or 43 per cent, were returned. Of the 20 questionnaires sent to directors of internships 11, or 55 per cent were returned. The data contained in these questionnaires were compiled by the author and she has summarized the results in the following paragraphs of this chapter.

Institution administration courses: Table 1 shows that 100 per cent of the institution administration programs surveyed offers a course in institution management and organization and less than 50 per cent offers courses in purchasing, catering and advanced institution management. This study also reflects the present trend toward the inclusion of fewer laboratory hours in academic courses. In the majority of the programs studied the courses taught were four quarter credit hours and included from one to three lecture hours.

TABLE 1

INSTITUTION ADMINISTRATION COURSES TAUGHT
IN COLLEGES AND UNIVERSITIES

Course Titles	Quarter Credit Hours			Lecture and Laboratory Hours		
	3 %	4 %	5 or More %	1-3 %	4 or More %	Laboratory Offered %
Taught in 100 % of colleges and universities studied	15	54	31	85	15	38
Institution Management and Organization						
Taught in less than 50% of colleges and universities studied						
Purchasing	17	83	0	67	33	50
Catering	0	0	100	100	0	100
Advanced Institution Management	0	0	100	100	0	50

More than 90 per cent of the directors of internships recommended inclusion of the following courses in the college institution administration program: (a) institution management and organization, (b) quantity experimental foods, (c) quantity food production and (d) institution administration experience.

Three quarter credit hours for each of the above courses was recommended by over 50 per cent of the directors. Between 25 and 55 per cent of the directors recommended that the following courses be included in the institution administration program: (a) financial management, (b) personnel management, (c) institution equipment and (d) purchasing. All of these were recommended as three quarter credit hour courses. The fact that less than 55 per cent of the directors of internships recommended the above courses need not discredit their importance since much of the recent literature definitely reflects a need for a thorough foundation in these courses at the college level. A possible explanation for the low percentage recommending these courses is the fact that some directors of internships may have received their training before these courses were considered important.

Purposes and objectives of institution administration courses: There was no response from the majority of programs studied; the following list includes all of the objectives for institution administration courses taught in less than 25 per cent of the programs studied:

1. Institution management and organization.

To acquaint the student with:

- a) The qualifications and responsibilities of the administrative personnel.

- b) The basic tools of management and organization.
- c) Sanitary standards, including state and federal regulations.
- d) Cost control.
- e) Problems of personnel management and importance of labor policies.
- f) Equipment layouts, specifications and dining room furnishings.

2. Purchasing

- a) To become acquainted with the available styles of foods as merchandized.
- b) To obtain knowledge of the storage requirements of foods.
- c) To develop better judgement of quality, grades, standardization and nutritive values as guides in food purchasing.
- d) To develop a clearer understanding of the federal and state regulations concerning contents and containers.
- e) To provide practice in determining the quantity of food needed.
- f) To provide practice in the use of grade standards as a guide for preparing purchasing specifications and the calculation of the quantity of food needed.

3. Catering

- a) To give the principles, techniques and experiences in planning, preparing and serving banquets, luncheons and teas.
- b) To offer suggestions and experiences in preparing fancy party foods.
- c) To give the student some practice in preparing tables for special occasions.
- d) To help the student attain an appreciation for table appointments, and skill in flower arrangement.
- e) To plan and serve foods for special occasions at different cost levels.

The directors of internships were asked to recommend areas of major emphasis in institution administration courses rather than purposes and objectives. The areas of major emphasis were recommended for the following courses:

1. Institution management and organization.

- a) Personnel relations and communication.
- b) Equipment.
- c) Purchasing and receiving.
- d) Financial management.
- e) Organization.

2. Quantity food production.

- a) Principles of quantity food production.
- b) Seasonal and cycle menu writing.
- c) Adaptation of menus to food production in various types of institutions.
- d) Attractive food service.

3. Quantity experimental foods.

- a) Testing, writing, standardizing, costing and using of recipes.
- b) Substituting of ingredients in recipes to get a desirable product.

4. Institution administration experience.

- a) Responsibility for a food service in a given area, such as a dining room or cafeteria, for a certain period of time.

A significant relationship exists between the objectives and areas of major emphasis of institution administration courses reported

in this study and the areas which are stressed as being important in recent literature (1-11).

Topics covered in institution administration courses: The topics covered in institution administration courses, with corresponding lecture hours, in more than 80 per cent of the colleges and universities studied are shown in Table 2. From one to three lecture hours are devoted to the majority of these topics. This study indicates the importance of including all topics listed in Table 2 in institution administration courses. Again, only a few of the colleges studied still include laboratory classes.

Over 90 per cent of the directors of internships recommended that all topics listed in Table 2 be included in institution administration courses. In addition to the topics listed in Table 2, over 90 per cent of the directors recommended that quantity recipe standardization and portion control be included.

Type of laboratory situation: Of the colleges studied, over 90 per cent has the following laboratory situation: (1) cafeteria with a permanent staff in which the student assists and observes; the remainder has the following laboratory situation: (2) cafeteria operated completely by students.

A cafeteria with a permanent staff in which the student assists and observes was recommended by 70 per cent of the directors of internships, and 30 per cent recommended a cafeteria operated completely by the student as the most desirable laboratory situation.

TABLE 2
 TOPICS INCLUDED IN INSTITUTION ADMINISTRATION COURSES
 TAUGHT IN COLLEGES AND UNIVERSITIES

Topics included by more than 80% of colleges and universities studied	Lecture and Laboratory Hours		
	1-3	4 or More	Laboratory Offered
	Lecture Hours %	Lecture Hours %	
Menu Planning	73	27	36
Purchasing	33	67	18
Cost Control and Accounting	82	18	36
Inventories	100	0	0
Stereroom Control	100	0	0
Work Simplification	100	0	36
Sanitation	82	18	18
Personnel Management	22	78	9
Administration and Organization	67	33	0

Degree of student responsibility in the laboratory: The degree of student responsibility in various areas of food service management in the colleges studied is shown in Table 3. This study revealed that few of the institution administration programs give the student an opportunity for full responsibility. In the larger percentage of programs, the student is given partial responsibility or only observes.

Table 4 shows the degree of student responsibility recommended by the directors of internships. This study shows that: (1) the larger percentage of directors recommend that the student be given partial responsibility, (2) over 25 per cent recommend that the student be given full responsibility and (3) none recommend that the student only observe.

Evaluation of the laboratory situation: The faculty of all of the colleges studied felt that a cafeteria permanently staffed by home economics personnel and supervised by home economics faculty members was superior. The faculty questioned also indicated that a cafeteria in which the student is given maximum responsibility is a better learning experience for the student.

Qualifications of instructors teaching institution management courses:

In 100 per cent of the colleges and universities studied the instructors who taught institution administration courses held a Master of Science degree; in 54 per cent of the programs studied the instructors had completed approved dietetic internships and had at least five years of experience in the food service field in addition to the academic degree; and in 31 per cent of the programs the instructor had not

TABLE 3
STUDENT RESPONSIBILITY IN INSTITUTION
ADMINISTRATION LABORATORIES

Area of Responsibility	Degree of Responsibility			
	Completely Responsible %	Partially Responsible %	Observation Only %	No Information %
Purchasing	0	31	62	7
Maintenance of Sanitary Standards	7	46	40	7
Planning Work Schedules	15	23	46	7
Recipe Standardization	7	54	31	7
Cost Accounting and Cost Control	7	23	62	7
Requisitions and Inventories	0	62	31	7
Food Production	15	62	15	7
Food Service	0	69	23	7
General Supervision	0	46	39	15

TABLE 4
 RECOMMENDED STUDENT RESPONSIBILITY IN
 INSTITUTION ADMINISTRATION LABORATORIES

Area of Responsibility	Degree of Responsibility			
	Completely Responsible %	Responsible %	Observation Only %	No Information %
Purchasing	27	73	0	0
Maintenance of Sanitary Standards	36	64	0	0
Planning Work Schedules	36	64	0	0
Recipe Standardization	64	36	0	0
Cost Accounting and Cost Control	27	73	0	0
Requisition and Inventories	27	73	0	0
Food Production	55	45	0	0
Food Service	55	45	0	0
General Supervision	55	45	0	0

completed an approved dietetic internship but had at least five years of experience in the food service field. In only 15 per cent of the programs did the instructor have neither training nor experience in the food service field.

Over 90 per cent of the directors of internships recommended that the instructor who teaches institution administration courses have at least five years of experience in the food service field and that they be graduates of an approved dietetic internship. Over 80 per cent of the directors recommended a Master of Science degree as academic qualifications.

The study definitely reflects the importance of the instructor who teaches institution administration courses having training and experience in the food service field in addition to academic degrees.

Qualifications of the institution administration experience supervisor:

In 54 per cent of the institution administration programs studied, the supervisor of the laboratory held a Bachelor of Science degree; in 38 per cent of the programs the supervisor held a Master of Science degree; in eight per cent of the programs the supervisor held no academic degree. In 100 per cent of the programs the supervisor had over five years of experience in the food service field. In 30 per cent of the programs the supervisor had completed an approved dietetic internship.

The directors of internships were not asked to make recommendations concerning the qualifications of the supervisor of the laboratory situation.

Evaluation of laboratory supervision: All except three of the colleges studied felt that the supervision of the laboratory was completely satisfactory or acceptable. Of the three rated unsatisfactory, one was supervised by a person holding a Bachelor of Science degree and having over five years of experience in the food service field, and in the other two rated unsatisfactory the supervisor had the same qualifications and was a graduate of an internship. The author does not believe that this study is sufficient to draw any valid conclusion concerning the relationship between qualifications of the laboratory supervisor and the rating of the supervision.

Quantity foods courses: Of the institution administration programs studied, 100 per cent included a course in quantity food production and eight per cent included a course in quantity food purchasing and preparation. Both of these courses were four to six credit hours in over 75 per cent of the programs including them; and in 100 per cent of the programs both courses included a laboratory.

Recommendations by the directors of internships concerning quantity foods courses were discussed earlier in the study.

CHAPTER III

DEVELOPMENT OF AN INSTITUTION ADMINISTRATION PROGRAM TO BE TAUGHT IN THE SCHOOL OF HOME ECONOMICS AT THE VIRGINIA POLYTECHNIC INSTITUTE

Determination of Needs

In developing an academic program in institution administration which would give the student a sound foundation upon which she could effectively build subsequent education and training in the food service field, the determination of the needs which such a program should fill was necessary. The author used the following information in determining these needs:

1. Recent literature, which was reviewed in Chapter I.
2. Institution administration programs in other land-grant colleges and universities, which were discussed in Chapter II.
3. The recommendations of directors of internships concerning institution administration programs at the college level, also discussed in Chapter II.
4. The author's personal knowledge of the food service field and her observation of and participation in the institution administration program at the Virginia Polytechnic Institute.

During the winter quarter, 1960, at the Virginia Polytechnic Institute, the author taught the course in institution administration experience. This course included the operation of a small cafeteria in the School of Home Economics, which was the institution administration laboratory, and a one hour lecture weekly. During this quarter,

the author was also able to observe the course in quantity food preparation. The cafeteria was operated by the students in the institution administration course, who assumed all managerial duties and responsibilities, and by the students in the quantity food preparation course, who carried out the actual food preparation and food service. The weekly lecture in institution administration experience was devoted to principles and theories of food service management. Prior to this, the student had no courses in principles and theories of institution administration. After participating in this program during the winter quarter, the author concurred with the dean of the school that the development of a course in the principle and theory of institution management and organization was the first step in revising and strengthening the institution administration program at the Virginia Polytechnic Institute. That the institution administration program would be comprised of a course in institution management and organization and a course in institution administration experience, which would be the laboratory situation, was thus established. The sequence of the courses was also decided. The course in institution management and organization was to be taught during the fall quarter prior to the course in institution administration experience which was to be taught during the winter quarter.

The needs which these two courses should fill, based upon the information previously listed, were then determined to be as follows:

1. A thorough orientation in the principles and tools of management and organization.

2. A knowledge in the principles and techniques of menu planning, food production and service.
3. A thorough orientation in the principles and tools of purchasing and cost control.
4. A concept of the principles and psychology of personnel management and personal (or) human relations.
5. A thorough orientation in the principles and techniques of equipment and sanitation as related to a food service.
6. A knowledge of recipe standardization, portion control, inventories, storeroom control and other record keeping.
7. A laboratory situation in which the student could effectively apply the above principles, tools, concepts and techniques of food service administration at the institution level.

In developing an outline of study to fill these needs, the goal was to attain the overall objective of the institution administration program at the undergraduate college level - that of giving the student a sound foundation in principles of food service management. Of prime importance is that such a program of study educate the student in the principles, tools, techniques and concepts, not only in actual subject matter areas, but also in the areas of leadership, responsibility, human relations, and decision making. The student who is educated in this way is able to cope with the various demanding situations with which she is confronted. It is not enough to teach the student what or how to do in a certain situation. Ability to solve problems and make decisions is an essential quality in the food service manager. The

director of a leading dietetic internship points out a lack of education in these areas at the college level in the statement:

Our problems with dietetic interns seem to be in the area of solving problems on the basis of the material or facts at hand (12).

The author, throughout the development of this program, has attempted to emphasize the areas of leadership, responsibility, human relations and decision making.

Outline of Study for the Course in
Institution Management and Organization

The author developed an outline of study to best fill the needs as established in the previous paragraphs. The outline of study developed was executed during the fall quarter, 1960. Lecture topics to be included in the course outline were obtained directly from the previously listed needs. The texts for the course were chosen according to the high standard of subject matter, comprehensive presentation and extensive coverage of material. Additional references were chosen to supplement text material and to familiarize the student with current literature.

Course outline: The organization of course topics is included at the end of this chapter. The course was planned to consist of two one-hour lectures and a one three-hour laboratory weekly, giving a total of three quarter credit hours. Lecture hours were allotted to lecture topics as follows:

1. Menu planning - two lecture hours.
2. Purchasing - two lecture hours.

3. Recipe standardization and portion control - two lecture hours.
4. Cost control - two lecture hours.
5. Work simplification - two lecture hours.
6. Sanitation - two lecture hours.
7. Equipment - one lecture hour.
8. Review of the principles of quantity food production -
one lecture hour.
9. Personnel management - two lecture hours.
10. Management and organization in relation to food service -
two lecture hours.

Laboratory hours were utilized in the following manner:

1. Menu planning - three laboratory periods.
2. Purchasing - two laboratory periods.
3. Work simplification - one laboratory period.
4. Tour of food service institutions - three laboratory periods.

A small portion of each laboratory period was spent in the presentation of reports by students. These reports were essentially abstracts of articles in recent literature related to lecture topics.

Lecture and laboratory plans: Subject matter to be presented in lecture periods and to be covered in laboratory periods was obtained from the text (13), supplementary texts (14, 15), from recent literature (16-26), and from the author's personal information and knowledge of the food service field.

Lesson plans for lectures were organized in outline form for each lecture topic. A skeletal outline of each lecture topic was given to the students to be used as a study guide. Laboratory instructions were also organized in outline form.

Organization of the Course in Institution

Administration Experience

In conjunction with the development of the course in institution management and organization, the laboratory situation, (or) institution administration experience, was necessarily revised. The revision was in organization only; it remained a course which was comprised of a one hour lecture period weekly and a six hour laboratory period giving three quarter hours credit. The laboratory hours were spent in the operation of a cafeteria located in the School of Home Economics. This cafeteria served approximately sixty people daily during the lunch hour Monday through Friday for eight weeks during the winter quarter, 1961. The lecture hour was devoted to a discussion of immediate problems and planning for the following week's operation.

The cafeteria was operated completely by the students in the quantity food preparation course who prepared and served the food, and the institution administration students who assumed all managerial duties and responsibilities. The students worked under the general supervision of the respective instructors of the two courses.

Organization of student's duties and responsibilities: The duties and responsibilities were organized into four areas of managerial positions.

The students rotated among these positions, each student having at least two tours of duty in all of the positions during the quarter. A copy of the managerial positions are included at the end of this chapter.

Pre-planning: The laboratory periods devoted to menu planning and purchasing during the fall quarter served a dual purpose. One purpose was to give the student experience in the procedure and technique of institution menu planning and food purchasing, and the other purpose was to plan menus and purchase orders for use in the operation of the cafeteria during the winter quarter. Menus planned for a five week cycle were thus ready for use. Standardized recipes had been compiled and filed for all menu items. Purchase orders had been made out for bi-weekly deliveries. This procedure of pre-planning not only gave the student an opportunity to assume greater responsibility in these areas, but also created a more realistic situation in food service management. All of the pre-planning was done by the students with the guidance of the instructor. This guidance consisted of criticisms, corrections, suggestions and final approval.

Some limitations of the laboratory situation: The limited space in which the cafeteria was operated, the lack of adequate modern equipment, and the physical layout created certain limitations in the overall operation of the cafeteria. The students were encouraged to utilize the available facilities to the optimum degree, putting into practice tools of organization and management such as work simplification.

The fact was emphasized that handicaps in a food service are not unique and that these handicaps should be a challenge to develop problem-solving ability rather than an excuse for inferior food service.

Operation of the cafeteria: The students assumed management of the cafeteria, following the outline of the managerial positions and oral directions from the instructor. The following forms had been developed for use in daily operation and record keeping:

1. Cost accounting.
2. Cafeteria set-up.
3. Purchase orders.
4. Food production work schedules.

Copies of these schedules are included in the appendix. The students had been instructed in the use of these forms prior to the opening of the cafeteria and were responsible for all records.

A daily menu conference was held to discuss utilization of left-overs, menu changes and any immediate problems. The general manager, production manager, and the instructor attended this conference.

In all aspects of the cafeteria operation, an attempt was made to accomplish the purposes of this course - to create a laboratory situation in which the student could obtain experience and training in assuming the responsibilities of food service management and to apply the principles thereof.

Evaluation of the Institution Administration Program

The author developed the institution administration program as discussed in the preceding paragraphs. During the fall and winter

quarters of 1960 and 1961, respectively, she taught the two courses of which this program was comprised, namely, Institution Management and Organization and Institution Administration Experience. Following the termination of the winter quarter 1961, this program was evaluated to determine its effectiveness.

Specifically, the program was evaluated by the students per a questionnaire prepared by the author, and this was followed by an evaluation by the author based upon: (a) the students evaluation, (b) degree to which the student comprehended lecture material, (c) ability of the student to apply knowledge of food service management in the laboratory situation, and (d) the standard of food service maintained in the laboratory situation as compared with established standards of food service.

Student's evaluation: The questionnaire given to the student (a copy of this questionnaire is included in the appendix) covered an evaluation of the following:

1. The degree to which the student felt she had received an adequate foundation in the subject matter areas covered in the course in institution management and organization: (a) enable her to apply institution administration principles in a supervised laboratory such as the cafeteria and (b) qualify her for advanced training and learning such as a dietetic internship.
2. The extent to which the student felt the course in institution management and organization contributed to her knowledge in institution administration principles and theories.

3. The degree of importance of the course in institution management and organization as a foundation for an effective learning experience in the laboratory situation.
4. The student's opinion of the quality of the course in institution management and organization in:
 - (a) Subject matter.
 - (b) Course outline or organization of subject matter.
 - (c) Method of instruction.
5. The student's opinion of the quality of the course in institution administration experience, or the laboratory situation, in:
 - (a) General organization of the cafeteria.
 - (b) Organization of the duties and responsibilities of the student.
 - (c) Staff supervision.

In number (1) above, the student was asked to indicate whether she felt the course was completely adequate, partially adequate, or inadequate.

In the following subject matter areas, 100 per cent of the students indicated that they felt they had received a completely adequate foundation:

1. Menu planning.
2. Quantity recipe standardization.
3. Portion control.
4. Sanitation.

5. Quantity food production and service.

6. Personnel management.

In the areas of purchasing, cost control, inventories and storeroom control, and work simplification, 84 per cent of the students felt that their foundation was completely adequate and 14 per cent felt that their foundation was partially adequate.

In the area of equipment 57 per cent of the students felt that their foundation was completely adequate and 43 per cent felt it was partially adequate.

In administration and organization, 70 per cent felt that their foundation was completely adequate and 30 per cent felt that it was partially adequate.

The student was asked to indicate whether she felt the course in institution management and organization contributed to her knowledge of institution administration principles and theory almost completely, moderately, very little or none. All of the students indicated that it contributed almost completely to their knowledge.

All of the students included in the survey believed that the course in institution management and organization was essential for the laboratory to be an effective learning experience. None thought that it was only helpful or unnecessary. In the overall evaluation of the course in institution management and organization, the students were asked to evaluate subject matter, organization of subject matter, and method of instruction in terms of very good, satisfactory, or unsatis-

factory. Eighty-six per cent of the students thought that the subject matter and organization of subject matter were very good and 14 per cent thought that they were satisfactory. None thought that they were unsatisfactory. The method of instruction was rated very good by 100 per cent of the students.

In the evaluation of the course in institution administration experience, the student was asked to evaluate general organization of the cafeteria, organization of student duties and responsibilities, and staff supervision in terms of very good, satisfactory, or unsatisfactory. General organization of the cafeteria was rated very good by 70 per cent of the students and satisfactory by 30 per cent. None felt it was unsatisfactory. Staff supervision and organization of student duties and responsibilities were both rated very good by 86 per cent of the students and satisfactory by 14 per cent. Again, none of the students rated these areas unsatisfactory.

Author's evaluation: On the basis of the student evaluation of the Institution Administration program, the author believes that the overall program was very effective. The subject matter area of equipment needs to be strengthened. This is also reflected by the student evaluation.

The degree to which the student comprehended lecture material was evaluated by the author upon the basis of: (a) student knowledge of subject matter as reflected in a written examination, (b) ability to utilize subject matter in laboratory situations, and (c) class

discussion. Excellent comprehension of subject matter was reflected by 86 per cent of the students on written examinations, and very good comprehension was reflected by 14 per cent. Very good comprehension was reflected by all of the students in class discussions. Excellent comprehension of subject matter was reflected by ability to utilize such knowledge in laboratory situations by 70 per cent of the students and very good comprehension was reflected by 30 per cent of the students.

The ability of the student to apply knowledge of food service management in the Institution Administration Experience course was evaluated by the author according to the student's performance in the following areas: (a) responsibility and leadership, (b) problem-solving and decision making, (c) personnel relations, (d) coordination and supervision of the various operations in the cafeteria, (e) maintenance of sanitary standards and adherence to high standards of food service, such as portion control, and (f) purchasing and cost control. The student's performance in these areas ranged from good to excellent, with the majority showing very good ability. The author feels that the most important factor in the student's performance in food service management is that the student have a real concept of responsibility.

The author believes that the standards of food service were maintained at a high level and very much in keeping with established standards.

Summary of evaluation: On the basis of the overall evaluation the author feels that the institution administration program as carried out this

year was very effective. It is not her intention to imply that this program is without weaknesses. She does believe that it is a program with a sound structure which can be further developed to meet the growing demands upon institution administration education at the college level in food service administration.

COURSE OUTLINE

Institution Management and Organization

Text: West, Bessie B., and Wood, Levelle: Food Service in Institutions.

New York: John Wiley and Sons, Inc., 1955.

Objective: To learn the scope and content of the responsibilities of the dietitian as a manager of food service.

Course content: Two one hour lectures and one three hour laboratory weekly.

Lecture topics:

1. Menu planning.
2. Purchasing.
3. Recipe standardization and portion control.
4. Cost control.
5. Work simplification.
6. Sanitation.
7. Equipment.
8. Review of the principles of quantity food production.
9. Personnel management.
10. Management and organization in relation to food service.

Laboratory topics:

1. Menu planning.
2. Purchasing.
3. Work simplification.
4. Tours of institution food services.

LESSON PLAN

Menu Planning

Objective: To learn the principles and techniques involved in institution menu planning.

I. GENERAL PRINCIPLES OF MENU PLANNING

- A. Nutritional requirements.
- B. Appearance.
- C. Palatability.

II. FACTORS INVOLVED IN INSTITUTION MENU PLANNING

- A. Clientele.
- B. Availability of foods.
- C. Plant resources.
- D. Personnel.
- E. Food budget.

III. BUILDING THE MENU AROUND A MEAT PATTERN

- A. Meat as the most expensive menu item.
- B. Meat as the mainstay or core of the American diet.

IV. THE ADVANTAGES OF CYCLE MENUS

- A. Variety.
- B. Standardization.
- C. Ordering and preparation.
- D. Time Saving.
- E. Greater cost control.

V. THE ADVANTAGES OF PRE-PLANNING

- A. Greater cost control.
- B. Mistakes and problems can be anticipated and eliminated.
- C. Assurance of greater food and menu variety.
- D. Greater efficiency in planning work schedules, purchase orders and storeroom control.

LESSON PLAN

Purchasing

Objective: To learn the principles and techniques of food purchasing as a part of food service management.

I. FACTORS INVOLVED IN PURCHASING

- A. Determination of amount of food required.
- B. Consideration of brands, type, quality.
- C. Local market.
- D. Budget.

II. FACTORS WHICH DETERMINE TYPE OF FOOD PURCHASED

- A. Food market.
- B. Quality of and number of personnel.
- C. Storage facilities.
- D. Clientele.

III. TYPES OF PURCHASING

- A. Contract.
- B. Open market.
- C. Brand.

IV. SPECIFICATIONS FOR FOOD PURCHASED

- A. Quality, ie., grades.
- B. Pack or type.
- C. Count or size per unit.

V. RECEIVING AND STORAGE

- A. Inspection of food received for quality and amount.
- B. Immediate storage in proper area, at proper temperature in proper containers.

LESSON PLAN

Recipe Standardization and Portion Control

Objective: To learn the principles and techniques of recipe standardization and portion control.

I. CHARACTERISTICS OF A STANDARDIZED RECIPE

- A. An approved recipe pattern.
- B. Contains established ingredients, amounts and procedures.
- C. Assures a product of consistent high quality.

II. REASONS FOR STANDARDIZATION

- A. To maintain food products of high quality.
- B. To maintain methods and techniques which meet accepted standards.
- C. To maintain cost control.
- D. To eliminate guesswork practices.

III. WHAT A TESTED RECIPE CARD SHOULD INDICATE

- A. Total yield, number of portions and size of each portion.
- B. All ingredients and procedure for combining ingredients.
- C. Total preparation time, including time required to assemble and prepare ingredients.
- D. Type and size of pan quantity to be sealed to each pan.
- E. Method of cooking and cooking temperature and time.
- F. Costing of recipe.

IV. STEPS IN TESTING A RECIPE

- A. Prepare a standard product of six to eight servings and expand to 50 servings.

- B. Expand to 100 servings and prepare at least three times with necessary modifications until product is standard.
- C. Check recipe by standard procedures.
- D. Evaluate the product by standard methods.

V. EXPANSION OF A STANDARDIZED RECIPE BY THE PERCENTAGE METHOD

- A. Convert all ingredients to same unit of weight and total.
- B. Calculate percentage of the total weight of each ingredient.
- C. Multiply the total weight by the amount of expansion, ie., recipe for 100 servings to be expanded to 500 servings, multiply total weight by five.
- D. Calculate weights for each ingredient by taking per cent of new total.

VI. PURPOSES OF PORTION CONTROL

- A. To aid in cost control.
- B. To base portions on accurate weight and measure thereby preventing waste.
- C. To insure that a given quantity of food always furnishes a certain number of portions and to insure uniform portions to every one served.

VII. PROCEDURE IN DEVELOPING PORTION CONTROL

- A. Standard portions set up according to nutritional adequacy, type of clientele and acceptability.
- B. Standard utensils for service.
- C. Employee training in portion control.

VIII. MAINTENANCE OF STANDARD SIZE SERVINGS

- A. Formulation of charts for employees containing portion sizes and corresponding utensils to be used.
- B. Use of standardized recipes.
- C. Execution of a continuing education program in portion control.

LESSON PLAN

Cost Control

Objective: To learn the principles and tools of cost control.

I. FACTORS INVOLVED IN COST CONTROL

A. Budget - income and direct and indirect expenses.

1. Food.
2. Labor.
3. Operating costs.

B. Allocation of expenses.

1. Fixed expenses.
2. Wages.
3. Food prices.
4. Policies of management.

II. TOOLS OF COST CONTROL

A. Food cost control.

1. Food purchasing.
2. Food storage.
3. Food preparation.
4. Food service.

B. Labor cost control.

1. Amount, kind and arrangement of labor saving equipment.
2. Efficiency of employees.
3. Employee turnover.
4. Current wage rate.
5. Adequacy of supervision.

C. Cost accounting - financial records lf:

1. Purchase orders.
2. Food requisitioned and issued.
3. Inventories.
4. Number of clientele.
5. Credits.

III. INVENTORIES AND STOREROOM CONTROL

- A. Perpetual inventories.
- B. Physical inventories.
- C. Storeroom requisitions and issues.

LESSON PLAN

Work Simplification

Objective: To learn the principles and tools of work simplification.

I. PURPOSES OF WORK SIMPLIFICATION

- A. To organize and apply common sense in finding easier and better ways of doing work.
- B. To improve production.
- C. To facilitate time and money savings.
- D. To promote job satisfaction.

II. TOOLS OF WORK SIMPLIFICATION

- A. Time and motion studies.
- B. Process charts.
- C. Flow diagrams.
- D. Job breakdowns.

III. THE FIVE STEP PROGRAM OF WORK SIMPLIFICATION

- A. Choose the job to be simplified.
- B. Break the job down into detail.
- C. Question and challenge the job and each detail of the job.
- D. Work out a better method.
- E. Apply the new method.

IV. NEED FOR WORK SIMPLIFICATION BASED UPON WORK DISTRIBUTION

- A. Time consuming activities.
- B. Misdirected efforts.

C. Improper utilization of employee's skill.

D. Unrelated task.

E. Distribution of task.

LESSON PLAN

Sanitation

Objective: To review the principles of bacteriology as related to sanitation, and to learn the application of these principles to food service.

I. CONDITIONS NECESSARY FOR THE PRESENCE AND GROWTH OF BACTERIA IN FOOD.

- A. Introduction at some stage of the food handling and service.
- B. Proper environment necessary for growth of bacteria.

II. AGENCIES WHICH PROMOTE FOOD SANITATION

- A. U. S. Public Health Service.
- B. U. S. Food and Drug Administration.
- C. Federal Meat Inspection Division of the USDA.

III. FOOD-BORNE INFECTIONS

- A. Diseases.
- B. Cause of organism.
- C. Mode of transmission.
- D. Foods implicated.
- E. Preventive.

IV. FOOD POISONINGS AND INTOXICATIONS

- A. Disease.
- B. Cause or organism.
- C. Mode of transmission.
- D. Food implicated.
- E. Preventive measures.

V. TEMPERATURE RANGE FOR BACTERIAL GROWTH

- A. 32°F - 0° Inhibition of bacterial growth.
- B. 50°F - 32° Bacteria growth slowed down.
- C. 60°F - 50°F Moderate bacterial growth.
- D. 98.6°F - 60°F Rapid bacterial growth.
- E. 120°F - 170°F Lethal to some varieties of bacteria.
- F. 212°F - 170°F Bacteria are killed at this temperature.

VI. TEMPERATURE RANGES FOR FRESH FOOD REFRIGERATED STORAGE

- A. 50°F - Maximum temperature for storage of all perishable foods.
- B. 44°F - 50°F Fruits except bananas - vegetables except potatoes.
- C. 38°F - 46°F Dairy products.
- D. 33°F - 38°F Meat and fowl.
- E. 23°F - 30°F Fish and shellfish.
- F. 0° minus 20° Frozen foods.

VII. PERSONNEL - HIGH STANDARDS OF SANITATION IN A FOOD SERVICE ARE

DEPENDENT UPON:

- A. Educational program which stresses the "why" and "how-to-do".
- B. Health examinations for employees.
- C. Personal hygiene and clean, neat work habits.
- D. Proper dress.

VIII. PHYSICAL PLANT AND EQUIPMENT

- A. Adequacy and safety of available water supply.
- B. Adequacy and regularity of garbage and trash disposal.
- C. Suitability of the structure and equipment to the sanitary requirements of the food service and to all its activities.

IX. OTHER FACTORS INVOLVED IN MAINTAINING HIGH SANITARY STANDARDS

IN A FOOD SERVICE

- A. Rodent and insect control.
- B. Plant maintenance.
- C. Dishwashing.
- D. Summary of factors involved in effective cleaning and sterilization of dishes.
 - 1. Proper equipment.
 - 2. Water, detergent and proper temperature.
 - 3. Contaminated and non-contaminated areas.

LESSON PLAN

Equipment

Objective: To learn the basic principles of equipment used in institution food services.

I. DETERMINATION OF EQUIPMENT NEEDS

- A. Essential tasks requiring particular equipment.
- B. Type of service, menu and clientele.

II. JUSTIFICATION OF NEEDS

- A. Labor hours saved.
- B. Money saved.
- C. Improvement of food production and food service.

III. SELECTION OF EQUIPMENT

- A. Electricity, plumbing and fuel.
- B. Size and capacity.
- C. Design.
- D. Contraction of building.
- E. Floor plan and physical layout.
- F. Safety, ease of cleaning.

IV. PURCHASING

- A. Specifications.
- B. Reliable firm.
 - 1. Maintenance.
 - 2. Replacements.
 - 3. Legalities.
- C. Cost.

V. USE AND MAINTENANCE OF EQUIPMENT

A. Directions for employees.

B. Training of employees.

LESSON PLAN

Quantity Food Production

Objective: To review the principles of food production as they apply to institution food production.

I. OBJECTIVES OF FOOD PREPARATION

- A. To conserve the nutritive value of the food.
- B. To improve digestibility.
- C. To develop and enhance flavor.
- D. To increase or retain attractiveness.
- E. To free food from injurious organisms and substances.

II. METHODS OF FOOD PREPARATION

- A. Preliminary processes.
- B. Cookery processes.
- C. Chilling and freezing.

III. PRINCIPLES OF COOKERY

- A. Meat, fish, poultry and eggs.
- B. Milk and other dairy products.
- C. Fruits and vegetables.
- D. Fats and oils.
- E. Cereals and cereal products.
- F. Beverages and food adjuncts.

LESSON PLAN

Personnel Administration

Objective: To learn the concept of the principles and psychology of personnel management.

I. PERSONAL QUALIFICATIONS OF THE PERSONNEL MANAGER

- A. Self confidence.
- B. Sincerity.
- C. Interest in and understanding of employees as people.
- D. Ability to communicate.
- E. Leadership and supervisory ability.
- F. Self discipline.

II. FACTORS NECESSARY FOR SUPERVISION

- A. Knowledge of the organization.
- B. Knowledge of responsibilities.
- C. Skill in teaching.
- D. Skill in planning.
- E. Skill in leadership.

III. MEANS OF COMMUNICATING

- A. Demonstrations.
- B. Oral messages.
- C. Written messages.

IV. MISCELLANEOUS ASPECTS OF PERSONNEL MANAGEMENT

- A. Labor policies, organization and legislation.
- B. Wages.

C. Hours and schedules.

D. Security in employment.

E. Employee insurance, retirement and health plans.

LESSON PLAN

Management and Organization of the Food Service

Objective: To learn the principles and tools of management and organization of the food service.

I. FACTORS INVOLVED IN THE ORGANIZATION OF A FOOD SERVICE

A. Coordination of the following operations:

1. Menu planning.
2. Food production and service.
3. Work schedules, time and duty schedules.

B. Management and execution of the following:

1. Purchasing.
2. Cost control and accounting.
3. Storeroom control and inventories.

C. Management of the maintenance of the following:

1. Sanitation and cleanliness.
2. Portion control and other standards.

II. SPECIFIC RESPONSIBILITIES OF THE FOOD SERVICE ADMINISTRATOR

- A. Departmental policy making.
- B. Employing and training.
- C. Welding together a staff of workers.
- D. Food and equipment purchasing and financial management.
- E. Meal planning, food production of service and work schedules.
- F. Maintaining sanitary standards.
- G. Evaluation of the department.

III. TOOLS OF MANAGEMENT

- A. Organization charts.
- B. Job analysis.
- C. Job descriptions.
- D. Job specifications and evaluations.
- E. Work simplification.

IV. PERSONAL QUALIFICATIONS OF THE FOOD SERVICE ADMINISTRATOR

- A. Leadership ability and executive aptitude.
- B. Maturity.
- C. Personal integrity.
- D. Pleasing appearance and personality.
- E. Interest in work.

V. EXECUTIVE QUALIFICATIONS OF THE FOOD SERVICE ADMINISTRATOR

- A. Problem solving ability and analytical ability.
- B. Organizing ability.
- C. Decision making ability.
- D. Aptitude in personnel management.
- E. Ability to plan ahead.

DUTIES AND RESPONSIBILITIES OF MANAGERIAL POSITIONS

INSTITUTION ADMINISTRATION EXPERIENCE

I. GENERAL MANAGER

A. Coordination of production, service, and financial management.

B. Formulation and execution of food orders as follows:

1. One week in advance of delivery date adjust purchase orders:

a) Adjust amounts to 65 servings (if choice is given on menu, calculate approximately half of 65 for each choice, giving a total of 65 servings)

b) Check inventories and delete necessary items from orders and add any staple items which are low.

c) Check menu for quantity of eggs to be ordered and add to Monday's delivery for the week.

2. Make a copy of the adjusted purchase order and send to Mr. Moore, Food Storeroom, Campus, being sure to designate delivery dates (Monday and Thursday) (One week in advance)

3. Purchase any items from Kroger's which cannot be obtained from main storeroom.

4. Order milk and milk products from campus dairy daily. Attach bill to purchase order and at the end of the week add total milk cost to the purchase order.

C. Management of daily inventories from Range, Salad, and Pastry Units.

D. Take a physical inventory each Friday and give to incoming manager.

E. Responsible for having all records filed in Manager's desk at all times:

1. Purchase orders and bills
2. Completed kitchen work sheets
3. Menus and recipes
4. Cost sheets

II. PROBUCTION MANAGER

A. Management of food production, Range, Salad, and Pastry Units.

1. Preparation of work sheets, one copy for each unit. To be posted in the unit the day prior to use when the completed work sheets are collected.
2. Preparation of a work sheet one week in advance for Mrs. Wright, to include all bakery items to be prepared in advance.
3. Work closely with general manager on all food production activities, inventories, menu adjustments, etc.
4. Work with Mrs. Aydlett in scheduling lunch hour for students.

III. FINANCIAL MANAGER

A. Management of cash receipts, daily cashiering and cash reports.

B. Cost accounting for preceding week as follows:

1. Calculate total cost from purchase orders of preceding week and any other bills. Add \$70.00 to this total, giving a grand total for the week.
2. Divide the grand total by 5, giving the daily cost or debit.
3. Total cash receipts for preceding week, divide total by 5, giving a daily credit or intake.

4. Compare the weekly credit (intake) and debit (cost), and calculate the profit or loss for the week.
5. Give this report to instructor on Friday.

IV. SERVICE MANAGER

A. Counter service

1. Plan food counter chart and post in A.M. of day to be used.
2. Plan utensils necessary for portion control.
3. Instruct students serving meal. Work with Mrs. Aydlett in assigning students to serve meal.
4. Supervise (and assist if necessary) clean-up of counter.

B. Dining room

1. Responsible for furniture arrangement, table set-up, etc.
2. Supervision of, and participation in, clean-up.

V. GENERAL INFORMATION

A. Service

1. One (1) person to serve meats and starchy vegetable. When short of help the General Manager will automatically be assigned to this duty and Mrs. Pechmann will assume general manager's duties.
2. One (1) person to serve other vegetables and soup. Bread will be self-served.
3. One (1) person to back the cafeteria line for cold foods and to serve beverage. The Food Production Manager will be given this assignment daily.

4. At least two (2) people will be assigned to carry soiled dishes from dining room. The Service Manager will be given one of these assignments daily. These students will eat lunch early - no later than 12:00.
5. One (1) person assigned to complete clean-up of salad and pastry units.

VI. MISCELLANEOUS

- A. All pre-prepared items must be labeled as to item, amount, and date to be used.
- B. All frozen left-overs must be labeled as to item, amount, and date stored. A record of this must be kept on the manager's desk and items taken off as they are used.
- C. Menu modifications
 1. All canned soups to be used except onion (dehydrated) and oyster stew (frozen).
 2. Mixes will be used for corn muffins, gingerbread, and brownies.

Note: Managers will be responsible for making necessary changes in purchase orders.

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was the development of an institution administration program to be taught at the undergraduate level at the Virginia Polytechnic Institute. All information and data included in this study were obtained from the following sources:

1. Questionnaires prepared and sent to college faculty in home economics and directors of approved dietetic internships.
2. Review of recent literature.
3. Evaluation of the institution administration program developed by the author.

In the majority of the land grant colleges and universities surveyed the institution administration program was comprised of a course in institution management and organization and laboratory experience in the management of a food service such as a cafeteria. Such a program was in agreement with the recommendations made by the directors of internships included in the study. Over 90 per cent of the directors of internships also recommended the inclusion of a course in experimental quantity foods as a part of the institution administration program.

The topics covered in the institution management and organization course in more than 80 per cent of the programs studied were: (a) menu planning, (b) purchasing, (c) cost control and accounting, (d) work

simplification, (e) sanitation, (f) personnel management and (g) administration and organization. The majority of the directors of internships recommended coverage of the same topics.

The larger percentage of home economics faculty and directors of internships questioned thought that a cafeteria which was permanently staffed with the student assisting and observing was the most desirable laboratory situation.

Both home economics faculty and directors of internships stressed the importance of the college program in institution administration giving the student a foundation in the various areas of management of food service administration.

The importance of institution administration instructors and laboratory supervisors having training and experience in the food service field was reflected in the opinions of both home economics faculty and directors of internships.

The institution administration program developed by the author was comprised of the courses included in the majority of programs studied and recommended by the larger percentage of the directors of internships. The only major aspect of the program developed by the author which differed from the programs studied was the laboratory experience. The institution administration experience was a cafeteria operated completely by the students under staff supervision. It should be recalled that the laboratory situation in the majority of programs studied was a cafeteria staffed permanently in which the student assisted and observed.

The evaluation of the program in institution administration developed by the author indicated that it was very effective in all areas except in coverage of institution equipment.

Conclusions

The following conclusions were drawn:

1. An adequate program in institution administration should be comprised of a course in institution management and organization and a course in a laboratory experience. This should be the minimum course content of such a program.
2. In addition to the coverage of subject matter related to food production and service, the courses in institution administration should also give adequate coverage of all areas of managerial skills.
3. Training and experience in the food service field is an important aspect of the qualifications of institution administration instructors.
4. The institution administration program developed in this study is effective except in the area of institution equipment.

Recommendations

The author makes the following recommendations:

1. Further study of the program developed should be made with subsequent strengthening of this program.
2. An attempt should be made to have the institution administration course taught by a person with training and experience in the food service field.

3. The possibility of including a course in quantity experimental foods in the institution administration program should be considered.
4. A study of the quantity food course should be made and an increase in quarter credit hours for this course considered.

BIBLIOGRAPHY

1. Butler, N. M.: Five evidences of an education. *Wisdom* 3:37
(Sept.), 1958.
2. Scott, Dorothy D.: Education of the dietitian of tomorrow.
J. Am. Dietet. A. 37:16, 1960.
3. Godfrey, Grace: Problems in the college training of the dietitian.
J. Am. Dietet. A. 17:639, 1941.
4. Dodge, Quindora, O.: Institution Management and professional
success. *J. Am. Dietet. A.* 16:291, 1940.
5. Vanderwanker, Richard D.: The dietitian and decision-making.
J. Am. Dietet. A. 35:1032, 1959.
6. Northrop, Mary W.: Development of the administrative dietitian.
J. Am. Dietet. A. 32:548, 1956.
7. Gibb, Jack R.: Human relations in administration. *J. Am. Dietet.*
A. 35:333, 1959.
8. Gleiser, Fern W.: We help train dietitians to be managers.
Hospitals, 31:72, 1957.
9. Stumpf, Grace L. and Donaldson, Beatrice: Better management by
control of direct expenses. *J. Am. Dietet. A.* 33:117, 1957.
10. McNulty, Thomas E.: Fiscal controls in the dietary department.
J. Am. Dietet. A. 36:118, 1960.
11. Miller, Grace A.: Academic preparation for food service management.
J. Am. Dietet. A. 37:121, 1960.
12. Personal correspondence: Major Margaret E. Rodke, Army Medical
Specialists Corps, April 12, 1961.

13. West, Bessie B. and Wood, LeVelle: Food Service in Institutions.
New York: John Wiley and Sons, Inc., 1955.
14. Byran, M. D.: The School Cafeteria. New York: Appleton-Century-Crofts, Inc., 1938.
15. Fowler, Sina Faye and West, Bessie B.: Food for Fifty. New York: John Wiley and Sons, Inc., 1950.
16. Ohlson, M. A.: The student dietitian: An experiment in cooperative education. J. Am. Dietet. A. 17:644, 1941.
17. Spickler, Joseph C.: Work simplification as a tool of management. J. Am. Dietet. A. 24:598, 1948.
18. Schmid, Merle D.: Work simplification making the job easier. J. Am. Dietet. A. 24:1062, 1948.
19. Pinney, V. E.: Cycle menus, tempered with flexibility, have advantages. J. Am. Dietet. A. 31:901, 1955.
20. Reams, R. A.: Cost and nutritional accounting go hand in hand. J. Am. Dietet. A. 31:1002, 1955.
21. Coffman, R. H.: Management development, fad or fundamental. J. Am. Dietet. A. 32:128, 1956.
22. Callahan, J. F.: Recipe expansion made easy. Inst. Mag. 46:10, 1960.
23. Whitehouse, R. and Fitzsimmons: Teaching management in food classes. Journal of Home Economics. 45:117, 1953.
24. Mundie, Paul J.: Qualities of successful leadership. J. Am. Dietet. A. 33:385, 1957.

25. LeTourneau, C. N.: Management and the profession of dietetics.
J. Am. Dietet. A. 33:691, 1957.
26. Harris, V. L.: Management's role in sanitation. Inst. Mag.
46:38, 1960.
27. Mundle, M. E.: Motion and Time Study. New York: Prentice-Hall,
Inc., 1955.
28. Barnes, R. M.: Motion and Time Study. New York: John Wiley and
Sons, Inc., 1949.

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APPENDIX

VIRGINIA POLYTECHNIC INSTITUTE

School of Home Economics

Blacksburg, Virginia

Dear Professor:

For sometime we have been in the process of reorganizing our undergraduate course work in Institution Administration. Before making final recommendations for revisions in our course work we would like to consider what other colleges and universities are including in their programs at the present time.

Would you be good enough to fill out the attached questionnaire for us, and return it to us as soon as possible. We shall greatly appreciate the favor.

If you would like to receive a summary of the results of this study, we shall be happy to send you one. We hope to complete our study by March 15 of this year.

We thank you.

Sincerely,

Laura Jane Harper, Dean
School of Home Economics

LJH:nw
Enclosure

VIRGINIA POLYTECHNIC INSTITUTE

School of Home Economics

Blacksburg, Virginia

Dear Madam:

For sometime we have been in the process of reorganizing our undergraduate course work in Institution Administration. Before making final recommendations for revisions in our course work we would like to consider what Directors of Dietetic Internships think should be included in the college course work in order to adequately prepare the student for internships.

Would you be good enough to fill out the attached questionnaire for us, and return it to us as soon as possible. We shall greatly appreciate the favor.

If you would like to receive a summary of the results of this study, we shall be happy to send you one. We hope to complete our study by March 25th. of this year.

We thank you.

Sincerely,

Laura Jane Harper, Dean
School of Home Economics

LJH:blh
Enclosure

SCHOOL OF HOME ECONOMICS
 DEPARTMENT OF FOODS AND NUTRITION
 VIRGINIA POLYTECHNIC INSTITUTE

Questionnaire on Institution Administration
 Courses in Colleges and Universities

I. Check the Institution Administration Courses and related courses which you think should be included in the Home Economics curriculum for a Major in Dietetics, and indicate the corresponding credit hours:

	Yes	No	Credit Hours
1. Institution Food Production	—	—	—
2. Quantity Experimental Foods	—	—	—
3. Institution Management and Organization	—	—	—
4. Institution Administration Experience	—	—	—
5. Others (List):	—	—	—
	—	—	—

II. List the areas which you think should receive major emphasis in Institution Administration Courses that are directed toward teaching administration:

<u>Name of Course</u>	<u>Areas of Major Emphasis</u>
1.	_____
2.	_____
3.	_____
4.	_____

III. Check the following topics which you think should be included in the course content of courses checked in (I) above:

<u>Topics</u>	<u>Yes</u>	<u>No</u>
Menu Planning	—	—
Purchasing	—	—

<u>Topics</u>	<u>Yes</u>	<u>No</u>
Quantity Recipe Standardization	___	___
Portion Control	___	___
Cost Control and Cost Accounting	___	___
Inventories and Storeroom Control	___	___
Work Simplification	___	___
Sanitation	___	___
Quantity Food Production and Service	___	___
Equipment	___	___
Personnel Management	___	___
Administration and Organization	___	___
Others (List):	___	___
	___	___

IV. List any of the topics listed in (II) above which you think should be separate courses and indicate corresponding credit hours:

<u>Topic</u>	<u>Credit Hours</u>
1.	_____
2.	_____
3.	_____
4.	_____

V. Indicate the type of laboratory situation which you think is best for Institution Administration Practice:

1. Cafeteria operated completely by students _____.
2. Cafeteria with permanent staff in which student assists and observes _____.

VI. In the columns below please check the degree of student responsibility which you think gives the student maximum training in the areas listed:

<u>Items</u>	<u>Completely Responsible</u>	<u>Partially Responsible</u>	<u>Observation Only</u>
Purchasing	_____	_____	_____
Maintenance of Sanitary Standards	_____	_____	_____
Planning Work Schedules	_____	_____	_____
Recipe Standardization	_____	_____	_____
Cost Accounting	_____	_____	_____
Requisitions, Inventories	_____	_____	_____
Food Production	_____	_____	_____
Food Service	_____	_____	_____
General Supervision	_____	_____	_____

VII. List in the spaces below what you feel to be the minimum education, experience, and training necessary for the Instructor in Institution Administration.

1. Education:

2. Training:

3. Experience in the food service field:

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Questionnaire on Institution Administration
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- I. Below are listed the major subject matter areas involved in Institution Administration. Please indicate the extent to which you feel you have an adequate foundation in these areas to: (1) enable you to apply Institution Administration principles in a supervised laboratory such as the cafeteria, and (2) qualify you for advanced training and learning such as a dietetic internship.

	Completely Adequate	Partially Adequate	Inadequate
Menu Planning	—	—	—
Purchasing	—	—	—
Quantity Recipe Standardization	—	—	—
Portion Control	—	—	—
Cost Control and Cost Accounting	—	—	—
Inventories and Storeroom Control	—	—	—
Work Simplification	—	—	—
Sanitation	—	—	—
Quantity Food Production and Service	—	—	—
Equipment	—	—	—
Personnel Management	—	—	—
Administration and Organization	—	—	—

- II. Please indicate the extent to which Institution Administration, Home Economics 436, which you took Fall Quarter, contributes to your

knowledge of Institution Administration principles and theory.
(Base this on college courses, not summer work)

1. Almost completely _____.
2. Moderately _____.
3. Very little _____.
4. None _____.

III. In order to gain a thorough concept of Institution Administration and for the food service laboratory (cafeteria) to be a meaningful experience, do you feel that Home Economics 436, which you took Fall Quarter, is (1) essential _____, (2) helpful _____, or (3) unnecessary _____.

IV. Please evaluate the Institution Administration program (Fall and Winter quarters, respectively) by checking the appropriate spaces:

<u>Fall Quarter</u>	<u>Very Good</u>	<u>Satisfactory</u>	<u>Unsatisfactory</u>
Subject Matter	---	---	---
Course Outline (Organization of subject matter)	---	---	---
Method (Instruction)	---	---	---
<u>Winter Quarter</u>			
Organization (in general)	---	---	---
Organization of duties and responsibilities of students	---	---	---
Supervision (staff)	---	---	---

SCHOOL OF HOME ECONOMICS
DEPARTMENT OF FOODS AND NUTRITION
VIRGINIA POLYTECHNIC INSTITUTE

Questionnaire on Institution Administration
Courses in Colleges and Universities

I. List the titles of Institution Administration Courses taught:

<u>Name of Course</u>	<u>Credit Hours</u>		<u>Lecture Hours</u>	<u>Lab. Hours</u>
	<u>Quarter</u>	<u>Semester</u>		
1.	---	---	---	---
2.	---	---	---	---
3.	---	---	---	---
4.	---	---	---	---
5.	---	---	---	---
6.	---	---	---	---
7.	---	---	---	---
8.	---	---	---	---
9.	---	---	---	---
10.	---	---	---	---

II. What are the purposes and objectives of Institution Administration Courses that are directed toward teaching administration:

<u>Name of Course</u>	<u>Purpose and Objectives</u>
1.	_____ _____ _____
2.	_____ _____ _____
3.	_____ _____ _____
4.	_____ _____ _____

III. Indicate Topics Covered:

<u>Topics</u>	<u>Lecture Hours</u>	<u>Lab. Hours</u>
Menu Planning	_____	_____
Purchasing	_____	_____
Quantity Recipe Standardization	_____	_____
Portion Control	_____	_____

<u>Topics</u>	<u>Lecture Hours</u>	<u>Lab. Hours</u>
Cost Control and Cost Accounting	_____	_____
Inventories and Storeroom Control	_____	_____
Work Simplification	_____	_____
Sanitation	_____	_____
Quantity Food Production and Service	_____	_____
Equipment	_____	_____
Personnel Management	_____	_____
Administration and Organization	_____	_____
Others (List)	_____	_____
	_____	_____

IV. Indicate type of Laboratory situation:

1. Cafeteria operated completely by students _____.
2. Cafeteria with permanent staff in which student assists and observes _____.

V. In the columns below please check the student's responsibility in the laboratory for the items listed:

Items	Completely Responsible	Partially Responsible	Observation Only
Purchasing	_____	_____	_____
Maintenance of Sanitary Standards	_____	_____	_____
Planning Work Schedules	_____	_____	_____
Recipe Standardization	_____	_____	_____
Cost Accounting	_____	_____	_____
Requisitions, Inventories	_____	_____	_____
Food Production	_____	_____	_____
Food Service	_____	_____	_____
General Supervision	_____	_____	_____

VI. Evaluate Laboratory situation considered better:

VII. Who teaches Institution Administration Courses:

1. Name:
Education:
Training:
Experience in Food Service Field:
2. Name:
Education:
Training:
Experience in Food Service Field:

3. Name:
Education:
Training:
Experience:

4. Name:
Education:
Training:
Experience in Food Service Field:

VIII. Who supervises the operation of the cafeteria?

1. Name:
Education:
Training:
Experience in Food Service Field:

2. Name:
Education:
Training:
Experience in Food Service Field:

3. Name:
Education:
Training:
Experience in Food Service Field:

4. Name:
Education:
Training:
Experience in Food Service Field:

IX. Do you consider this type of supervision to be:

- (1) Completely satisfactory_____.
- (2) Acceptable_____.
- (3) Unsatisfactory_____.

X. List the titles of Quantity Foods Courses taught:

Name of Course	Credit Hours		Lecture Hours	Lab. Hours
	Quarter	Semester		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____

Name of Course	Credit Hours		Lecture Hours	Lab. Hours
	Quarter	Semester		
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____

Institution Management and Organization - H.Ec. 436

Fall, 1960 Final Examination

I. MATCHING

- | | |
|--|---|
| 1. Buying food and equipment_____. | A. A RESPONSIBILITY OF A DIETITIAN OR FOOD SERVICE MANAGER. |
| 2. Interest in work_____. | |
| 3. Numbers to be fed_____. | B. A PERSONAL CLASSIFICATION OF A DIETITIAN. |
| 4. To eliminate guesswork practices_____. | |
| 5. Cooking temperature and cooking time_____. | C. A FACTOR INVOLVED IN MENU PLANNING. |
| 6. Departmental policy making_____. | |
| 7. Employing_____. | D. A REASON FOR STANDARDIZATION OF RECIPES. |
| 8. Practicability of service_____. | |
| 9. Method of cooking_____. | E. WHAT A TESTED RECIPE CARD SHOULD INDICATE. |
| 10. Number of portions_____. | |
| 11. Leadership ability_____. | |
| 12. Yield of given volume_____. | |
| 13. Financial management_____. | |
| 14. Maturity_____. | |
| 15. Section for filing_____. | |
| 16. Pleasing appearance and personality_____. | |
| 17. Maintaining sanitary standards_____. | |
| 18. Size of portions_____. | |
| 19. Availability and season-ability of foods_____. | |
| 20. Training_____. | |

II. Define:

1. Management
2. Organization
3. Standardized recipe
4. Open market purchasing
5. Contract purchasing
6. Cost control
7. Physical inventory
8. Perpetual inventory
9. Time and motion studies
10. Process chart
11. Job breakdown
12. Work simplification

III. Completion

- Any 1. A tested recipe card should include _____, _____, and
Three _____.
2. Four purposes of portion control are:
 - 1.
 - 2.
 - 3.
 - 4.
 3. In serving standard portions _____ equipment is essential.
 4. Menus are usually built around a (1) _____ pattern because (1) is
the basis of the American diet and (1) is the most (2) _____
item on the menu.
 5. Weekly menu writing can be eliminated by the use of _____ menus.

6. In purchasing it is better to set-up (1) _____ for most items.
(1) is essential when buying by contract.
7. Buying schedules may be daily _____, _____, _____
or yearly.
8. Food service expenses may be classified as (1) _____ expenses,
and as (2) _____ expenses. Food waste is an example of
(1) or (2)? Food cost is an example of (1) or (2)?
9. Storeroom control is dependent largely upon an efficient system
of recording what is received, what is issued and the balance on
hand. This is accomplished by use of one or both of the
_____ studied.
two types of
10. A work simplification program is a 5-step program, these steps are:
(1)
(2)
(3) Question and challenge the job.
(4)
(5)
11. The questions used to analyze number (3) above are:
(1)
One (2)
Word (3)
Each (4)
(5)
(6)
12. The two conditions necessary for the presence and growth of
bacteria in food are:
(1)
(2)

13. In order to maintain high sanitary standards high standards of _____ must first be established.
14. One food borne infection is _____ and is caused by the organism _____.
15. One food borne intoxication or poisoning is _____ and is caused by toxins produced by the organism _____.
16. The temperature range at which rapid bacterial growth occurs is _____ to _____.
17. In order to be confident that a dishwashing machine is sanitizing dishes the temperature should be _____.
18. The purpose of dishwashing is to:
 - (1)and (2)
19. A dishwashing unit should be divided into a _____ area and a _____ area.
20. The five steps in purchasing equipment are:
 - (1)
 - (2)
 - (3)
 - (4)
 - (5) Purchase of equipment.
21. List at least (6) of the responsibilities of a dietitian (or Food Service Administrator).
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
 - 6.

22. List the five qualities of a good supervisor:

1.

2.

3.

4.

5.

IV. Technical and professional knowledge is necessary for a dietitian to be successful but this knowledge is not sufficient to insure success. Discuss the reasons for this statement as completely as you can.

HOT FOOD COUNTER - VPI HOME ECONOMICS CAFETERIA

DAY _____ DATE _____

ABSTRACT

The purpose of this study was to develop an Institution Administration program to be taught at the undergraduate level at the Virginia Polytechnic Institute. Institution administration programs in other land-grant colleges and universities were studied and recommendations for such programs were obtained from directors of approved dietetic internships.

An institution administration program comprised of a course in institution management and organization and a course in institution administration experience was developed. The program developed was in agreement with institution administration programs offered in other colleges and universities and recommended by directors of internships.

The two courses making up the institution administration program were taught at the Virginia Polytechnic Institute fall quarter, 1960 and winter quarter, 1961. At the termination of winter quarter, 1961, the program was evaluated for effectiveness and recommendations for further development of the program were made.