

AGENCY FOR INTERNATIONAL DEVELOPMENT
 WASHINGTON, D. C. 20523
BIBLIOGRAPHIC INPUT SHEET

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Batch 72

1. SUBJECT CLASSIFICATION	A. PRIMARY Serials	Y-NC00-0000-0000
	B. SECONDARY Health--Education and manpower	

2. TITLE AND SUBTITLE
 Teaching community medicine, phase III; annual report, 1976/1977

3. AUTHOR(S)
 (101) Boston Univ. Ctr. for Educational Development in Health

4. DOCUMENT DATE 1977	5. NUMBER OF PAGES 205p.	6. ARC NUMBER ARC
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7. REFERENCE ORGANIZATION NAME AND ADDRESS
 Boston

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)
 (Activity summary)

9. ABSTRACT
 A PROJECT: To train health professionals to serve as field directors to train health teachers in their own countries in systematic instructional design methods and to provide technical assistance and consultation to LDCs on country specific health manpower development problems.
 DURATION: 1977 ongoing
 DEVELOPMENTS: This first year summary of the progress of Boston University Center for Educational Development in Health discusses the field director training, teacher training, instructional materials development, and country requests for technical assistance. The bulk of the report is devoted to the appendices which include the timetable for technical assistance, instruments to evaluate leader's guide, and leader's guide for a workshop in systematic course design. The center is to annually train four to six LDC health professionals in systematic instructional design methods for the health fields. Field directors are to annually train 50 to 100 health teachers in their own countries. Technical assistance and consultation to three to five LDCs on country specific health manpower development problems is to be provided annually. In the second year, a field tested Instructor's Manual for use with the text, Systematic Course Design for the Health Fields is to be published, followed in the third year by an adapted and simplified version of the text.

10. CONTROL NUMBER <i>PN-AAE-793</i>	11. PRICE OF DOCUMENT
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12. DESCRIPTORS Health education Medical education	13. PROJECT NUMBER
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14. CONTRACT NUMBER AID/ta-C-1355 GTS
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15. TYPE OF DOCUMENT

AID/ta-c-1355 GTS
BOSTON
FN-442-773

ANNUAL REPORT

CONTRACT NO. AID/ta-c-1355

PROJECT NO. 931-11-540-239

TEACHING COMMUNITY MEDICINE, PHASE III

BOSTON UNIVERSITY

Center for Educational Development in Health

September 26, 1977

I. INTRODUCTION

The Center for Educational Development in Health of Boston University under contract to the United States Agency for International Development (AID/ta-c-1355), is to provide the following:

1. Annually, train 4 to 6 LDC health professionals with known leadership potential in systematic instructional design methods for the health fields. These professionals serve as Field Directors for in-country training of health teachers.
2. Annually, Field Directors train 50-100 health teachers in their own countries in systematic instructional design methods.
3. In year 02, publish a field tested Instructor's Manual for use with the text, Systematic Course Design for the Health Fields (Segall, Vanderschmidt, et al, Wiley & Sons, Inc.). In year 03, publish an adapted and simplified version of the text cited above.
4. Annually provide technical assistance and consultation to 3 to 5 LDC's on country specific health manpower development problems

Progress during year (01) is considered satisfactory. Activities, ranging from initial requests for information on CEDH services to direct in-country

TA, were undertaken with the following countries during this period;

Bahrain	Malaysia
Benin	Mali
Bolivia	Morocco
Brazil	Nepal
Chile	Nicaragua
Colombia	Niger
Ecuador	Nigeria
El Salvador	Panama
Ethiopia	Papua New Guinea
Ghana	Senegal
Guatemala	Swaziland
Honduras	Syria
Jamaica	

It is noteworthy that certain countries have obtained or are considering the use of funds for CEDH services from other than this present contract. El Salvador has, on two occasions, funded the invitational travel of CEDH staff to assist with aspects of the Rural Health Aide Program. Honduras obtained PAHO fellowship funds for a month's training in Boston of a key member of the Medical School Curriculum Committee in systematic course design during the months of January and February 1977. In addition, both AID-Honduras and GOH have expressed willingness to support certain activities in 1978. AID-Bolivia funded 1 man-month (July-August 1977) of consultation of a CEDH staff member to assist with curriculum design in the Montero Rural Health Project and indicated the availability of funds for activities in 1978. Finally, Nepal and Peru are considering the use of local funds for CEDH services.

A summary of progress to date is given below:

SUMMARY TABLE

PROGRESS TO DATE

OUTPUTS*	MAGNITUDE OF OUTPUTS**	PROGRESS TO DATE
<p>1. Trained LDC Nationals (Field Directors) to provide leadership in systematic instructional design for the health fields</p>	<p>1. Annually 4-6 LDC Health Professionals with known leadership potential (sent by AID missions for specialized training).</p>	<p>1. <u>Field Director Training</u></p> <ul style="list-style-type: none"> * Head, Physiology Department, Medical School, Honduras, 1 month. * Chief, Nursing Education, Ministry of Health, Bolivia, 1 month. * Nurse Educator, Montero Rural Health pilot project, Bolivia, 1 month.
<p>2. Teachers of health professional and paramedicals trained by Field Directors.</p>	<p>2. 50-100 teachers trained in LDC's annually.</p>	<p>2. <u>Teacher Training:</u></p> <ul style="list-style-type: none"> * Bolivia 22 * Nepal 12-20 * Honduras 28
<p>3. Adapt and field test a simplified version of text, Systematic Course Design for the Health Fields and a Teachers' Manual.</p>	<p>3. a) Publish field tested Teachers' Manual in year 02. b) Publish adapted and simplified version of field tested Systematic Course Design in year 03.</p>	<p>3. <u>Instructional Materials Development:</u></p> <ul style="list-style-type: none"> * <u>Teacher's Manual.</u> A Field Test Edition, now titled <u>Leader's Guide for a Workshop in Systematic Course Design</u>, was completed in August, 1977. Field tests underway in Malaysia and Nepal. * Simplified version of text, <u>Systematic Course Design for the Health Fields.</u> Numerous conceptual models for text identified by CEDH staff; discussion on-going. * Spanish edition of the text: The translated edition accepted for publication by LiMusa Publishing Co. (Mexico City). Publishers estimate publication in December 1977.

** From Contract No. AID/ta-c-1355

OUTPUTS	MAGNITUDE OF OUTPUTS	PROGRESS TO DATE
<p>4. Curricula developed or revised and specialized consultant services provided on country specific health manpower development problems provided to LDC's.</p>	<p>4. Requests for assistance from approximately 3-5 LDC's responded to annually.</p>	<p>4. <u>Country Requests for TA:</u></p> <p>A. <u>Services Provided</u></p> <ul style="list-style-type: none"> * El Salvador: a) instructional staff (12) of Rural Health Aide trained in simple methods of assessing classroom test reliability <ul style="list-style-type: none"> b) assisted in development and analysis of a Performance Evaluation of the graduate Rural Health Aides. c) assisted with final curriculum revision for Rural Health Aide (2nd cycle) d) with Ministry of Health and AID Mission, develop follow-up plans to complete CEDH assistance. * Guatemala: reconnaissance visit to assess possible collaboration of CEDH in development of a "regional center"; follow-up visit scheduled but postponed to a later date. * Nicaragua: reconnaissance visit to assess possible assistance in development of the national Institute for Human Resources in Health; follow-up visit planned. * Nepal: a) reconnaissance visit to determine assistance to the Institute of Medicine in training Health Assistants and Auxiliary Health workers and to plan workshops on systematic course design evaluation and instructional methods

OUTPUTS	MAGNITUDE OF OUTPUTS	PROGRESS TO DATE
		<p style="text-align: right;">b) delivered two workshops for Institute of Medicine faculty:</p> <ol style="list-style-type: none"> 1) Evaluation of the Teaching/Learning Process 2) Instructional Methodology <p style="text-align: right;">c) provided consultation on curriculum design</p> <p>* Bahrain: reconnaissance visit to explore possible collaboration with AUBSCO on a "regional center" and to field test the Teachers' Manual.</p> <p>* Bolivia: a) reconnaissance visit to review Montero Rural Health pilot project</p> <p style="text-align: right;">b) CEDH staff assisted Bolivian Field Directors with 2-week Workshop on Systematic Course Design</p> <p style="text-align: right;">c) provided consultation on design and implementation of curricula for Rural Auxiliary Nurse Supervisor and Village Health Worker (Promotor).</p> <p>* Syrian Arab Republic: provided AID with suggested consultants to conduct an assessment of needs for TA to improve the quality of paramedical training at the Technical Health Institute.</p> <p>* Honduras: provided 1-week workshop on evaluation techniques for instructional staff of the Auxiliary Nurse (Rural) training program.</p>

OUTPUTS	MAGNITUDE OF OUTPUTS	PROGRESS TO DATE
		<p>* Ethiopia and Senegal: a paper entitled, "A Survey of Multipurpose Village Health Worker Training Programs", was prepared in response to requests for information on training of illiterate and semi-literate populations for health service delivery responsibilities.</p> <p>* Peru: a) reconnaissance visit to Peruvian Neonatology and Child Care Institute on questions of curriculum design</p> <p style="padding-left: 40px;">b) a 1-week workshop on Systematic Course Design for staff of the Peruvian Neonatology and Child Care Institute and the country's medical schools.</p> <p>B. <u>Services Requested:</u></p> <p>* Bolivia: a) assistance with performance evaluation of first groups of Rural Auxiliary Nurse Supervisors and Village Health Workers (Promotores). Spring 1978</p> <p style="padding-left: 40px;">b) assistance to improve evaluation of instruction of various categories of auxiliary health workers. Spring or Summer 1978.</p> <p>* Honduras: a) follow-up workshop on evaluation of instruction. Spring or Summer 1978</p> <p style="padding-left: 40px;">b) intensive training in Boston of a staff member of the Human Resources Division in Evaluation Design. Spring 1978.</p>

OUTPUTS	MAGNITUDE OF OUTPUTS	PROGRESS TO DATE
		<p>* El Salvador: a) assistance with evaluation instruments and teaching methodologies in the RHA training program (October 1-15, 1977)</p> <p>b) assist with final adjustments of RHA curriculum and plan performance analysis (21 November to 3 December 1977)</p> <p>c) assist with conduct of performance analysis of RHA's (May 1978)</p> <p>* Nepal: (See Appendix A for timetable of projected TA)</p> <p>* Peru: INPROMI interested in rescheduling the 5-day workshop on systematic course design</p>

II. PROGRESS TO DATE

A. Field Director Training:

1. During a visit to Honduras, the Chief of Human Resources (a CEDH Field Director) of the Ministry of Health, arranged an interview for the consultant with Dr. Samuel Dickerman. Dr. Dickerman is chairman of the Department of Physiology at the Honduran Medical School and is an active member of the curriculum committee. The purpose of the interview was to ascertain whether CEDH could prepare a 1-month program for him in "curriculum design and evaluation in medical education".

Subsequently, Dr. Dickerman received a PAHO fellowship and spent the period 10 January to 11 February 1977 at CEDH. A significant outcome of his visit was his interest in exploring ways in which CEDH might become involved in their plans to totally revise the medical curriculum over the next three years. This medical school is planning a curricular re-orientation toward the goals expressed in the National Health Plan. Dr. Dickerman agreed to serve as a Field Director, should CEDH become involved in the medical curriculum revision project.

2. As a direct result of a reconnaissance visit (11/18 to 12/3/76) to Bolivia, two senior nurse educators involved in the Montero Rural Health pilot project were sent to CEDH for field director training. Mrs. Margarita de Milan is Chief of Nursing Education for the Ministry of Health, and as such, is well positioned to have an impact on the design of nursing curricula throughout that country.

Mrs. Maily de Crespo is one of two nurse instructors involved in

the preparation of the new Auxiliary Nurse Supervisor category of worker who will play a big role in the Montero pilot project. It is expected that Mrs. Crespo will be involved in the replication of this training throughout the country, should the pilot project be judged successful.

B. Teacher Training by Field Directors:

1. Bolivia: A workshop on systematic course design was presented in Montero, Bolivia (4-15 July) by Field Directors Millan and Crespo for 22 participants. There was participation from all of the country's auxiliary nursing schools, the Ministry of Health (both central and regional levels) and the Rural Health Extension Team, Montero. Two CEDH staff assisted as resource persons.

A noteworthy accomplishment of the workshop was the development of sets of professional responsibilities for the basic rural health team:

Auxiliary Nurse II (Supervisor)
Auxiliary Nurse I
Promotor

These professional responsibilities were approved in principle by the central Ministry of Health.

2. Nepal: A workshop on systematic course design was presented (4-16 September) for the faculty of the Auxiliary Health Worker Training Program by Field Directors Shrestha and Shrestha. Thirteen participants attended. Two CEDH staff assisted as resource persons.

This workshop is serving as a field test of the Leader's Guide. Instruments to evaluate the Leader's Guide were developed as follows: (See Appendix B)

- Criteria Specifications
- Daily Feedback Sheet
- Instructor Evaluation of Leader's Guide

Results of the field test will be reported later.

3. Honduras: Field Director Haddad presented a workshop on Evaluation of Instruction on 22-26 August, to 28 participants. Attending the workshop were the Directors and faculty of the country's graduate nurse and auxiliary nurse schools. Principal outcomes of the workshop were a series of cognitive and practical test instruments. These instruments will be validated on student populations in the various schools.

One CEDH staff member attended as a resource person.

C. Instructional Materials Development:

1. Teacher's Manual

CEDH staff and consultants have developed a simplified plan for a teacher's manual titled Leader's Guide for a Workshop in Systematic Course Design, to include:

- a. Criteria for evaluating student products
- b. Exercises
- c. Suggested alternative syllabi and session plans.

A draft of the Teacher's Manual was completed in August, 1977. (See Appendix C for draft.)

Field tests are underway in Nepal and Malaysia. On the basis of the results obtained in the field tests, the Leader's Guide will be revised.

2. Simplified version of the text, Systematic Course Design for the Health Fields

A series of possible approaches to the simplified version of the text have been elaborated. CEDH plans a 2-day "brainstorming" session this fall to settle upon one of these approaches and to begin detailing the development of this text.

3. Translations of the text, Systematic Course Design for the Health Fields

Latest information indicates that the spanish translation of the text will be published by December, 1977. LiMusa Publishing Company (a subsidiary of Wiley and Sons) in Mexico City has had the manuscript since August of 1976.

Interest has been expressed by an international agency in Paris for producing a french translation of the text. A number of copies of the draft translation are being reviewed and we expect a decision soon.

D. Country Requests for Technical Assistance:

1. Services provided

a. El Salvador:

Following a pilot demonstration of the use of indigenous

village health workers in late 1975, GOES decided to embark on large scale production of this type of worker for deployment throughout the nation's rural areas. CEDH has provided assistance to this project as follows:

- (1) June 15-30, 1976 - Finalize a six-week curriculum including instructional unit objectives, content, teaching methods and student evaluation (AID/pha C-1100)
- (2) August 18 to September 10, 1976 - Advise on implementation of curriculum in 3 field sites and develop protocol for evaluating performance of the worker in the field (AID-ta-C-1320)
- (3) January 11 through 25, 1977 - Assist with final design of performance evaluation instruments, sample selection and training of field interviewers (AID/ta-c-1355).
- (4) March 20 through 25, 1977 - Assist with analysis and interpretation of performance data with special emphasis on the implications for curricular revision, as indicated by the data; recommend revisions to the performance evaluation model to facilitate annual replication of the study (AID-Salvador. travel; AID/ta-c-1355: per diem)
- (5) May 19 through June 17, 1977 - Prepare the Interim Report on the Rural Health Delivery System Project; advise on the implementation of revisions to the Rural Health Aide Curriculum; and deliver a 2-day workshop on instructional evaluation for teaching staff of the Division of Human Resources, MOH (AID/ta-c-1355)
- (6) August 13 through September 1, 1977 - Review status of revised Rural Health Aide curriculum; assist with final preparation of curricular components for implementation beginning the last week of August, 1977 (AID/ta-c-1355).

b. Guatemala:

Under AID/ta-c-1355, a reconnaissance visit was made on

27 February to 1 March 1977. The principal purposes were:

1) to acquaint CEDH with Guatemala's experience with auxiliary level health worker training and 2) to review a comprehensive project to evaluate health care delivery in rural areas.

Due to the length of the visit, CEDH was unable to obtain an

in-depth look at either program. At face value, however, both programs appear to be conceptually sound, well designed and closely monitored. Equally impressive was the leadership, both in AID and the host country.

In concluding discussions with Guatemalan officials, they raised the question of whether CEDH would be interested in exploring a collaborative relationship with various Guatemalan agencies (The Academy of Medical, Physical & Natural Sciences, the Auxiliary Health Worker Training School at Quirigua, etc.) leading to the formation of a "regional center". It was the opinion of these officials that they are now ready to begin sharing their experiences in training and utilization of auxiliaries with other interested Latin American countries. A follow-up visit to continue discussions of this issue was scheduled for the latter part of May, but was postponed to some future date due to the non-availability of key officials at that time.

c. Nicaragua:

In response to a cable request by AID-N, a reconnaissance visit was made on 2-4 March 1977, to determine ways in which CEDH might assist in the development of a National Institute for Human Resources in Health. Dr. Campos, Director of the Institute, was out of the country during the visit, with the result that full discussions could not take place. A follow-up visit was planned for mid-May.

A component of the Institute's activities which is of special interest to CEDH is the development of the National Health Training School. This school will eventually be responsible for the basic training of all non-physician categories of health workers. In addition, the School will have responsibilities for preparing newly graduated physicians for their obligatory "community health" experience.

Two related factors seem to suggest that project is viable. First, it is fully supported by the Ministry of Health, National Social Security, Association of Urban Hospitals, and the Association of Rural Hospitals. Second, Dr. Campos appears to be highly respected by the political and medical communities.

The follow-up visit took place on 16 to 19 May. Conferences were held with Dr. Campos and staff of the National Institute for Human Resources. Curriculum development activities for various categories of workers were scheduled for July, 1977. Due to prior commitments, CEDH could not program any direct assistance for this period. As an alternative, 10 copies of the spanish translation (manuscript) of the text were sent to the Institute and informal arrangements were made for Cecilia Barrera (PAHO Nurse Educator) to provide an orientation of Institute staff to the systematic course design model. Mrs. Barrera is very familiar with our approach having worked extensively with Field Director Haddad in Honduras.

d. Nepal:

In response to a cable request, CEDH made a reconnaissance visit

during March 3-16, 1977. CEDH objectives for the visit were:

- (1) to assess present needs of Institute of Medicine in curriculum development/revision for health assistant and auxiliary health worker curricula.
- (2) to make a plan with the Dean and faculty of the Institute of Medicine for revising present curricula.
- (3) to propose a timetable for implementation including a milestone chart. This timetable would include provision for assistance by CEDH.

In consultation with the Dean of the Institute of Medicine and his staff at the Maharajgunj, Tansen, Birgunj and Surkhet campuses, CEDH made the following proposed plan for assistance:

- faculty training workshops implemented by the IOM curriculum development nucleus and monitored by CEDH
- bibliographic assistance to IOM to plan, develop and implement an instructional materials center to serve all campuses
- consultation on field studies and curriculum development activities
- workshops on modern educational techniques + evaluation methods.

In addition, CEDH prepared a detailed timetable for implementation of its recommendations (See Appendix A, Institute of Medicine, Kathmandu, Nepal Timetable, March 1977 to September 1979.)

In addition to the workshop on systematic course design to field test the Leader's Guide, two workshops were delivered to the faculty of the Institute of Medicine in September:

1) Evaluation of Instruction

With 12 participants attending, a nine-session workshop was given covering such subjects as: writing objective tests, writing practical tests, testing attitudes, and interpreting test results.

2) Instructional Methods

With 12 participants, a six-session workshop was given covering selection, design and use of many of the newer instructional methods.

e. Bahrain:

A trip to explore potentials for regionalization was made to Manama, Bahrain March 17-21. Dr. Nabil Kronfol, Director, Institute of Health Sciences and a CEDH field director requested the visit.

Objectives of the trip were to:

- * explore potentials for regionalization for Near East Region
- * explore possibility of field testing the Teachers' Manual at the Institute of Health Sciences
- * explore other modes of collaboration.

f. Bolivia:

In response to a request from AID-W, a reconnaissance visit was made during the period 18 November to 3 December 1976. CEDH's objectives included a general review of the pilot Rural Health Service Delivery System Project in Montero

and specifically, the health manpower training component.

Four major recommendations were made:

- (1) Two persons involved in training of the Auxiliary Nurse Supervisor in Montero to attend a Field Director Workshop in Boston.
- (2) Field Directors (Millan & Crespo) conduct a workshop on systematic course design, assisted by CEDH staff. The workshop is scheduled for early July 1977.
- (3) CEDH provides assistance to participants with instructional materials development during the month following the workshop.
- (4) CEDH provides continuing consultation to the project as it passes from the pilot phase to implementation throughout Bolivia.

Items (1) and (2) above were accomplished (see Sections II-A and II-B, respectively). Item (3), provide assistance with instructional materials development, was accomplished during the period 16 July to 17 August by a CEDH staff member. The specific objectives, as provided by AID-Bolivia, went beyond the assistance which was planned originally. The revised objectives were:

- 1) Review and revise curricula for:

Auxiliary Nurse II-(Supervisor)
Auxiliary Nurse I
Promotor

- 2) Provide medium term health manpower development strategies for the Montero Rural Health Project

A full report of these activities will be available soon.

g. Peru:

A five-day workshop on systematic course design was scheduled for 19-23 September. Due to an ongoing strike of the Peruvian physicians, the workshop could not be held. Instead, the two CEDH staff members provided 3 days of consultation to the Training Division of INPROMI on curricula for in-service training of primary care physicians, nurses, promotores and traditional midwives.

INPROMI wishes to re-schedule the workshop for a later date.

III. PLANS FOR YEAR 02:

A. Field Director Training:

A Field Director Workshop is contemplated for Spring of 1978.

B. Field Directors Train Health Teachers:

Honduras:

A two-week workshop on systematic course design is tentatively planned for the Faculty of Medicine of the Autonomous University of Honduras. Confirmation should be received soon from Field Directors Haddad and Dickerman. The workshop is tentatively scheduled for January 1978.

C. Instructional Materials Development:

1. Teacher's Manual

Results of the field tests of the Leader's Guide in Nepal and Malaysia will be analyzed and the indicated revisions made. It is expected that publication will take place in year 02.

2. Adapted and Simplified Text

A first draft of the simplified version of Systematic Course Design will be developed.

It is expected that this book will use

- * simpler English
- * examples drawn from training auxiliary health workers in the four AID geographic areas
- * a simpler format
- * a model which will focus on solving course design problems in the LDCs.

D. Country Requests for Technical Assistance:

1. Bolivia:

In discussions with Ministry of Health and AID officials, the following TA needs were identified:

- a) Assistance with the design and implementation of a performance analysis of the first cycle of Rural Auxiliary Nurse Supervisors and Promotores. The performance analysis would serve as a basis for adjustments to the training curriculum.
- b) Assistance with the design of a standardized evaluation systems for the training programs of various auxiliary level health workers.

2. Honduras:

Preliminary discussions were held in August with the Director and Staff of the Division of Human Resources concerning the following technical assistance:

- a) A follow-up workshop to develop sets of standardized evaluation instruments for a significant component of the Auxiliary Nurse (Rural) curriculum.
- b) Intensive training in Boston (1 to 3 months) of a staff member of the Division of Human Resources in Evaluation of Instruction. This person would serve as a resource for all training activities of the Division.

There was verbal agreement that local (AID and GOH) funds would be available to support this assistance.

3. El Salvador:

Three visits are contemplated during year 02:

- a) October 1-15, 1977 - Visit to take place during the 1977 RHA training course to assist with the application, scaling and adjustment of the evaluation/selection instruments and to advise on teaching methodologies.
- b) November 21 to December 3, 1977 - Visit at the completion of RHA training for overall review of the program and to make final adjustments to the curriculum; collect base-line data for the RHA performance analysis to take place in the Spring, 1978.
- c) May, 1978 - One month's assistance in the conduct of the performance analysis of the RHA's.

4. Nepal:

Please see Appendix A for the timetable of projected technical assistance.

5. Peru:

A workshop on systematic course design, to replace the one postponed in September, will be delivered in year (02). It is expected that INPROMI and AID-Peru will provide CEDH with alternate dates sometime in the coming months.

6. Bahrain:

It is expected that discussions on regionalization will continue during year 02.

E. Possible Long-Range Activities to be Discussed in Year (02):

1. During the recent trip to Peru by CEDH, interest was expressed by the Association of Peruvian Medical Schools (ASPEFAM) in exploring the possibilities of establishing a long range (3 to 5 years) relationship for the purpose of systematic review and revision of all the health professional training programs in the country. There is a desire to re-orient the

various curricula towards greater emphasis on:

- a) Community Medicine
- b) Primary Care
- c) Maternal and Child Health, including control of fertility.

This possible project was discussed with AID-Peru.

2. Preliminary discussions have been held with staff of the Center for Population and Family Health of Columbia University, New York, presently an AID contractor, on possible collaboration by CEDH in the design and implementation of training programs in MCH and Family Planning. It is expected that further discussion will take place during year (02).
3. Dr. Augusto Macarenhas, Dean of the Universidade Federal de Salvador in Bahia, Brazil, has expressed interest in CEDH assistance with the design phases of a Multidisciplinary Rural Health Care Delivery Project. This project is presently financed by the Rockefeller Foundation and is said to have both rural and urban components, with strong emphasis on family health, including family planning.

Discussions will continue during year (02).

4. Dr. Ernesto Zambrano, Dean of the Medical School in the Universidad del Valle, Cali, Colombia, has approached CEDH for possible assistance in the review and re-design of training programs for various levels of rural health workers. Involved in the project would be the training programs at the following medical schools:

- a) Cali
- b) Popayan
- c) Caldas

Discussions will continue in year (02).

APPENDIX A

TIMETABLE FOR TECHNICAL ASSISTANCE

INSTITUTE OF MEDICINE

KATHMANDU, NEPAL

APPENDIX A

INSTITUTE OF MEDICINE

Kathmandu, Nepal

Time-table (March 1977 to September 1979)

<u>Place</u>	<u>Timeframe</u>	<u>Activity</u>
Boston	Ongoing	- provide bibliographic assistance plan instructional materials center
Nepal	September 1977	- assist IOM curriculum development nucleus in conducting faculty training workshop - conduct workshop on modern training techniques + evaluation methods - assist AHW faculty in conducting field study to verify AHW job description
Nepal	Sept.-Dec. 1977	- Maharajgunj staff develops
Boston		basic science curriculum HA students, CEDH staff in Boston provides editorial assistance

<u>Place</u>	<u>Timeframe</u>	<u>Activity</u>
		<ul style="list-style-type: none"> - Maharajgunj staff develops basic science curriculum and evaluation instruments for HA students. CEDH staff in Boston provides editorial assistance - AHW staff develop competency based course designs. CEDH provides editorial assistance
	<u>January 1978 - December 1978</u>	
Boston	Ongoing	<ul style="list-style-type: none"> - provide bibliographic assistance plan instructional materials center
Nepal	January 1978	<ul style="list-style-type: none"> - CEDH staff to review work in progress HA and AHW curricula with IOM faculty. At this time a provisional curriculum and test instruments for basic science (HA) as well as course designs for AHW should be drafted
Nepal & Boston	Jan-June 1978	<ul style="list-style-type: none"> - As IOM faculty revise curricula according to student and instructor feedback, CEDH staff

<u>Place</u>	<u>Timeframe</u>	<u>Activity</u>
		provides ongoing editorial assistance
Nepal	July 1978	- Curriculum development nucleus plans and implements teacher training workshop with CEDH assistance
		- Curriculum development nucleus and CEDH staff assess next steps in curriculum development IOM and development of instructional materials center
Nepal & Boston	Aug-Dec 1978	- IOM staff continues curriculum development, CEDH provides editorial assistance and consultation

January - September 1979

A similar procedure as projected for 1978 is planned. At this point IOM-AID and CEDH will consider what additional help is needed.

Note: This proposal calls for approximately 2-4 man months in country per year, as well as an additional 4-8 man months per year in Boston providing editorial and bibliographic support. In order to accomplish this work additional AID funding may be required.

- Should IOM consider the development of an instructional materials center as a priority funding, for the necessary equipment, books, and audio visual aides needs to be developed.
- Should the scope of work as outlined here be increased a revision of the proposal will be required.

APPENDIX B

INSTRUMENTS TO EVALUATE LEADER'S GUIDE

CRITERIA FOR WRITING AND EVALUATING
INDIVIDUAL PROJECT ASSIGNMENTS

#1: DESCRIBING THE INSTRUCTIONAL SITUATION (Criteria):

Your description should include at least the following items, excepting as a given item is not applicable to your situation. Evaluation of your description will be based on the extent to which you covered the items.

- () Title: official or temporary name for the course.
- () Purpose: major intent of the course.
- () Students: major category(s) of individuals who will take the course (e.g., 3rd year medical students, community volunteers etc.).
- () Setting: institution or location where the course will be taught.
- () Resources: funds, personnel, labs, audiovisual aids etc. available to develop and teach the course.
- () Constraints: limiting factors such as time schedules, numbers of students, traditions that must be maintained etc.

#2 DESCRIBING FUTURE PROFESSIONAL ROLE OR ROLES (Criteria):

- () Each role is identified by position title or the equivalent.
- () Each role has the setting or situation identified.

#3 LISTING PROFESSIONAL RESPONSIBILITIES (Criteria):

- () Each responsibility statement should contain a clear, explicit action verb identifying the nature of the performance involved in meeting the professional responsibility.
- () The responsibilities stated should be pertinent to your instructional situation as described by you in Assignment #1.
- () The responsibility statements should contain sufficient information so that a qualified colleague could understand them and respond to them by providing constructive feedback for revisions.

#4: ANALYZING SKILL/KNOWLEDGE/ATTITUDE COMPONENTS (Criteria):

- () Each skill statement contains an action verb that makes clear the behavior or performance involved.
- () The skills identified cover the components or steps needed to meet the professional responsibility.
- () As appropriate, the skills include both motor skills such as medical or surgical procedures, and cognitive aspects such as observing, evaluating, interpreting, problem-solving, decision-making etc.
- () The knowledge components identify the technical terminology, underlying facts/concepts, criteria, etc. that your students must learn in order to perform the skill with which they are associated. (NOTE: In this respect, you will necessarily be making assumptions about their entry skills/knowledge prerequisites.)
- () The attitude components are stated in such a way that it appears feasible to identify behavioral indicators of the presence or absence of the attitude during performance of the skill(s).
- () The format shows the "alignment" of the skill, knowledge, and attitude components.
- () As appropriate, sequential skills are stated in sequence.

#5: DESCRIBING CONDITIONS AND PERFORMANCE (Criteria):

Description of Conditions for professional competency should show adequate attention to items:

- () other people
- () resources and facilities
- () problems, challenges, tasks
- () physical location
- () physical stress
- () time constraints
- () emotional stress

#6: DESCRIBING TERMINAL AND ENTRY STUDENT COMPETENCIES (Criteria):

- () Description of terminal student competency must be defensible with reference to:
 - () explicit constraints in resources, time, etc.,
 - () consideration of alternative levels of simulation (at least one other terminal student competency must have been described and considered),
 - () rational for the modifications in professional conditions and/or performance.
- () It must be evident that a qualified specialist could, based on the description of the terminal student performance, prepare a suitable final examination (oral, practical, written).
- () A reasonable attempt must have been made to describe entry student competencies or a reasonable basis given for not doing so.

#7: DESCRIBING INTERMEDIATE STUDENT COMPETENCIES OR CHECKPOINTS (Criteria):

- () Each intermediate competency or checkpoint should make clear how it could be tested via a progress check or test. For example, a qualified specialist should be able to construct an appropriate oral, practical, or written exam.
- () There should be at least one lower-level simulation of the entire terminal student competency, or a good reason why this is not feasible.
- () You should be able to explain your decisions regarding the inclusion/omission of skill, knowledge, and attitude components of the analyzed responsibility from which the terminal student competency and intermediate competencies have been developed.

#8: PLANNING FOR EVALUATION (Criteria):

- () Each test should be sufficiently clear so that a qualified colleague would have no trouble constructing a satisfactory version of the test, assuming he/she could consult with you about specifics of the content of the test.
- () There must be a test for the terminal student competency, and the nature of that test (oral, practical, written) should match the conditions/performance which describe the terminal student competency.

- () If no progress tests are used, justify that exclusion.
- () If no pretest or prerequisite tests are included, justify those exclusions.

#9: DESIGNING INSTRUCTIONAL ACTIVITIES (Criteria):

Choice of Instructional Activities must:

- () simulate competencies being taught.
- () include opportunities to learn the range of skills, knowledge and attitude included in the analyzed responsibility.
- () make provisions for a variety of instructional functions including:
 - () providing a frame of reference.
 - () providing a reason to learn.
 - () shaping student attitudes.
 - () transmitting information.
 - () demonstrating behavior to be learned.
 - () allowing students to practice behaviors.
 - () providing feedback on student progress.

#10: CONSTRUCTING A SYLLABUS AND SESSION PLANS (Criteria):

For Syllabus:

- () Should state course title, location, instructor, time period.
- () Should be broken down by individual sessions, numbered and/or dated.
- () Should contain brief description of the instructional activities for each session.
- () Should spell out assignments for future sessions.

For Session Plan:

- () Should have an equivalent cover sheet as described in the Leader's Guide.

SYSTEMATIC COURSE DESIGN WORKSHOP

PARTICIPANT EVALUATION

Session # _____

1. What did you like or what did you find useful about this session?

2. What did you not like or what was confusing about this session?

3. What would you suggest to make this session better in the future?

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN #

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	<u>YES</u>	<u>NO</u>	<u>NOT</u> <u>APPLICABLE</u>	<u>YES</u>	<u>NO</u>	<u>NOT</u> <u>APPLICABLE</u>
References & Resources:	_____	_____	_____	_____	_____	_____
Instructional Activities:	_____	_____	_____	_____	_____	_____
Lectures/ Discussions:	_____	_____	_____	_____	_____	_____
Exercises:	_____	_____	_____	_____	_____	_____
Evaluation/ Feedback:	_____	_____	_____	_____	_____	_____

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

Attitudinal Test

- () Purpose for developing test stated.
- () Attitudinal objective defined.
- () Behavioral indicators stated.
- () Items simulate attitude to be tested.
- () Correct answers not obvious.
- () Instructions clear.
- () Scoring procedure described.
- () Scoring procedure simple & clear.
- () Interpretation of scoring described.
- () Methodology appropriate.
- () Use & limits of instrument defined.

CRITERIA FOR EVALUATION WORKSHOP

Evaluation Plan

- () Each test described should be sufficiently clear so data qualified colleague would have no trouble constructing a satisfactory version of one test.
- () Test of terminal student competency described.
- () Test of terminal student competency should match the conditions/performance which describes that competency.
- () Progress tests included or omissions justified.
- () Entry level test included or omissions justified.

Multiple Choice Test

- () Items reflect test plan.
- () Distractors logical
- () Items at recall level included
- () Items at interpretation level included.
- () Items at problem solving level included
- () No give away items
- () Items simply & clearly written.
- () Items do not cue each other.

Performance Test

- () Criteria defined
- () Test simulates procedure closely
- () Test samples all critical aspects of performance.
- () Instructions simple & clear.
- () Scoring procedure described.
- () Scoring procedure simple & clear.
- () Process tested (if appropriate).
- () Product tested.

APPENDIX C

LEADER'S GUIDE

For

A WORKSHOP IN SYSTEMATIC COURSE DESIGN

(Field Test Edition)

LEADER'S GUIDE

For

A WORKSHOP IN SYSTEMATIC COURSE DESIGN

(Field Test Edition)

BOSTON UNIVERSITY

CENTER FOR EDUCATIONAL DEVELOPMENT IN HEALTH

Boston, Massachusetts

1977

LEADER'S GUIDE
FOR
A WORKSHOP IN SYSTEMATIC COURSE DESIGN

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SECTION I: BACKGROUND INFORMATION

A. INTRODUCTION

This LEADER'S GUIDE for workshops in systematic course design is based on the book SYSTEMATIC COURSE DESIGN by Segll, Vanderschmidt, Burglass and Frostman (Wiley, 1974). The GUIDE provides all of the directions and information you need to plan, conduct and evaluate your workshop in systematic course design.

For purposes of this LEADER'S GUIDE and the workshops you will conduct using it, systematic course design is defined as a logical, step-by-step process for developing a course of instruction (or the units of instruction that make up a course).

B. LEADER PREREQUISITES

This LEADER'S GUIDE assumes that you will bring to the workshops certain prerequisite skills and knowledge. Some of the skills are general and have to do with teaching in a variety of situations. For example, we assume that you are taking on the responsibility for conducting systematic course design workshops because you can already do such things as:

- Give an organized lecture based on a set of notes. (In this GUIDE notes for your lectures are in the session plans, discussed later).
- Conduct a question-answer discussion in which participants comment, ask questions and volunteer information in response to issues and questions that you pose.
- Give learners feedback on the work they do in their various assignments and do so in a constructive, positive manner.

Other skills and knowledge required to conduct the systematic course design workshop are quite specific. They have to do with the specific systematic course design process that is taught by the workshop:

Knowledge - You need a thorough understanding of the systematic course design process described in the textbook for this workshop, SYSTEMATIC COURSE DESIGN, and the content of this LEADER'S GUIDE, which deals with how to teach others that process.

Skills - You have to be skillful in applying the process, to be able to carry out the steps in the process as directed in the assignments, and especially important, you have to be skillful in interpreting the systematic course design process to your workshop participants: responding knowledgeably by giving helpful feedback for the work they do in applying the process in their projects during the workshop, and giving appropriate examples of the products for the various steps in the process.

C. DEVELOPING LEADER SKILLS AND KNOWLEDGE

Generally, there are two ways for developing the skills and knowledge prerequisites for conducting the systematic course design workshop:

1. Participating yourself in a systematic course design workshop.

The optimum way is for you to participate in a systematic course design workshop conducted by the Boston University Center for Educational Development in Health or by a workshop leader trained at that Center. This experience tends to ensure that you have reasonable skills in applying the systematic course design process the way your own workshop participants will be expected to; and that you are reasonably knowledgeable about the assumptions underlying the process.

2. Studying and working through the process on your own.

An alternative, more difficult but certainly feasible approach, is for you to study carefully on your own the textbook and this LEADER'S GUIDE, and to use them as resources for your developing a project by carrying out the systematic course design process step-by-step on your own. This approach has the obvious difficulty that it does not provide you with feedback on the work you do at each step in the process. If you undertake this approach, you can contact the Boston University Center for Educational Development in Health for a free evaluation and feedback of your personal systematic course design project.

If you are going to develop the prerequisite skills/knowledge for conducting this workshop without actually participating in a workshop, you should by all means do a systematic course design project on your own, following this procedure:

- () Read through Unit A of the textbook.
- () Examine carefully the sample project in Unit D.
- () Read through in its entirety Section I of this LEADER'S GUIDE.
- () Examine the session plans in Section II
- () Do the assignments in the prescribed order:
 - Read the session plan first.
 - Do any exercises called for in the session plan which are feasible -- for example, do the exercises that appear in Unit B of the textbook.
 - Study the directions given in the assignment handout.
 - Study the criteria listed for evaluation.
 - Do the assignment.
 - Self-evaluate your assignment using the criteria listed in the assignment handout. NOTE: It can be very helpful if you work with a colleague who can evaluate and give feedback on your assignments.

D. ORGANIZATION OF THE WORKSHOP

The primary activity around which the workshop is organized is the production of a project by each participant. In these projects the workshop participants carry out the steps of the systematic course design process in relationship to some part of the instruction for which they are presently responsible in their jobs or positions. The participants' work on their individual systematic course design projects is guided by a series of assignments. Each assignment is described in an assignment handout which states the directions for what is to be done in the assignment and the criteria that will be used in evaluating the assigned work.

The instructional activities which lead up to and support each assignment throughout the workshop are described in session plans in Section II. These session plans are designed so that you can use them to conduct each session.

E. ORGANIZATION OF THE SESSION PLANS

Each session plan begins with a Cover Sheet stating the session number, title, content summary and references and resources.

The body of each session plan contains any or all of the following elements:

- INTRODUCTION: a review of previous sessions and a preview of what's ahead.
- EXERCISES: both group and individual exercises to facilitate learning of the course design model.
- ASSIGNMENT: referring to individual project development.
- EVALUATION & FEEDBACK: enabling you to assess participant's progress.

F. USING THE SESSION PLANS

Basically, the session plans serve two purposes:

- They enable you to plan and prepare for your sessions.
- They help you to conduct your session.

1. Planning and Preparing for Sessions

- a. Look at the cover sheet for each session and determine the participant materials needed - individual exercises, if any, and assignment handouts. Be sure to have sufficient copies.
- b. Read through each of the references in the textbook to refresh your memory about them.
- c. Make sure you have the overhead transparencies needed.
- d. Turn to the body of the session plan and go through it item-by-item to refresh your memory about what you will be covering, to make sure you know where the overheads should be displayed and where participant materials are to be distributed, to add any notes you wish about examples to give or points to highlight, and to check the amount of time you have allocated for the session and its activities.

2. Conducting the Sessions

Have the session plan in front of you where it is convenient for you to refer to during the session. And before you actually start a session, check such things as:

- () Chalkboard clean; chalk and eraser available.
- () Flipchart has clean sheet exposed; markers available
- () Overhead transparencies in order; projector in focus.
- () Materials to be distributed are neatly piled and sorted.

As you conduct each session, use the following general guidelines:

a. Introduction:

Include a review/preview statement at the start of each session to remind the participants of what they have done so far and what they will be doing next. Information for these appears in the session plans.

Encourage participant involvement by asking questions as often as feasible.

Be sure to direct their attention to pertinent pages in the textbook, especially the examples of what you will be asking them to produce in the assignment for the session.

Define any new technical terms and either ask for or give examples. It may be best to give definitions by referring them to the appropriate textbook pages.

b. Group Exercises:

A group exercise is an instructional activity which is led by the workshop leader and which involves the participants working together in a group situation to carry out a step of the systematic course design model. For example, you identify a particular future professional role and have the participants volunteer the professional responsibilities for that role, which you then record on the chalkboard/flipchart.

A variation on this is to have small groups or teams carry out the activity and then report their work to the full group. This takes more time, of course, but also facilitates interaction among the participants. We call this variation team exercises, with a team being two or more participants.

The group or team exercise we recommend most strongly is what we call the carry-through group/team exercise. Here is how it works:

- You and/or the participants choose a particular future professional role with which to work in group/team exercises.
- Starting with Session #3, which deals with listing professional responsibilities for a particular professional role, you have them work with that particular professional role throughout later sessions. For example, let's call the professional role X. The carry-through group/team exercises will then include:

- ...in session #3: list responsibilities of X.
- ...in session #5: develop skill/knowledge/attitude components.
- ...in session #6: describe one of X's analyzed responsibilities as a professional competency.
- ...in session #7: describe terminal and entry student competencies for the professional competency above.
- ...in session #10: etc.

The carry-through exercise provides a useful and valuable tool by which you can help your workshop participants develop the skills/knowledge they need to carry out various steps of the systematic course design process effectively.

c. Individual Exercises:

There are certain sessions in which individual exercises are available for your use. These printed handouts (Section III) enable the participants to administer a practice-exercise to themselves and to use the feedback provided in the exercise to evaluate their own responses to the problems/questions posed.

Individual exercises have complete directions at the top of the first page. Read through these with your participants before starting an individual exercise.

d. Assignments:

As noted earlier, most of the sessions include an assignment in which the participants work on the next step of the systematic course design process as it applies to their individual projects.

Each assignment is described in an assignment handout (Section III) containing directions, criteria and examples. Read through the directions and criteria and ask for comments/questions before participants start working on the assignment.

e. Evaluation and Feedback:

Each session having an assignment for the participants also includes evaluation and feedback. Evaluation and feedback can be conducted in any of the following ways:

- You (and any co-leader) check through each participant's assignment work, using the criteria in the assignment handout.
- Have the participants exchange their work and evaluate each other's work, using the stated criteria.
- Have each participant read his/her work to either the full group or to smaller groups being led by a co-leader, after which the participants and leader(s) give feedback based on criteria.

G. PREPARING FOR THE WORKSHOP

Here is a checklist of items to consider when preparing for a systematic course design workshop:

- () Mailout questionnaire - you may want to have a simple questionnaire mailed out to the participants prior to the workshop including:
 - a cover sheet stating the purpose of the workshop and the schedule - dates, times of each day, location, etc.
 - questions about the participants including name, affiliation, instructional responsibilities, expectations (what they hope to gain from the experience) etc.

- () Physical facilities - plan ahead to be sure that the room in which the workshop will be held is satisfactory including:
 - size
 - adequate for projecting overhead transparencies
 - equipped with chalkboard/flipchart
 - work tables sufficient for participants.

- () Materials - arrange for the copies you will need of materials for the participants including:
 - assignment handouts,
 - exercises,
 - textbook.

NOTE: Once you have read the appropriate sections of the textbook and applied the systematic course design approach to developing your own unit(s) of instruction, review Section I of this LEADER'S GUIDE and then use the guides and resources of Sections II and III to plan and conduct your own workshop in systematic course design.

SECTION II: WORKSHOP GUIDELINES

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SYSTEMATIC COURSE DESIGN

WORKSHOP SYLLABUS

SESSION	TOPICS & ACTIVITIES	ASSIGNMENT FOR NEXT SESSION
<p>#1: Introduction to Systematic Course Design (Half day) Date: _____</p>	<ul style="list-style-type: none"> ● Introduction of participants. ● Objectives of the workshop. ● Group exercises on course design strategies. ● Examination of the textbook syllabus. 	<ul style="list-style-type: none"> ● Read Textbook pages A-1 through A-7.
<p>#2: Describing (a) the Instructional Situation and (b) the Future Professional Role(s) (Half day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Individual exercise on future professional roles. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #1 & #2. ● Read pages A-8 through A-10.
<p>#3: Listing Professional Responsibilities. (Full day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Optional group exercise on levels of detail. ● Group exercise on professional responsibilities. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #3. ● Read pages A-11 through A-13.
<p>#4: Analyzing Responsibilities: Skill/Knowledge/Attitude (Full day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Individual exercise on analyzing responsibilities. ● Group exercise on analyzing responsibilities. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #4. ● Read pages A-16 through A-29 & C-3 through C-28.

SESSION	TOPICS & ACTIVITIES	ASSIGNMENT FOR NEXT SESSION
<p>#5: Conducting a Performance Analysis (Full day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Exercises on conducting a performance analysis. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignments #1-4. ● Read pages A-34 through A-38.
<p>#6: Describing Conditions & Performance (Half day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Group exercise on conditions and performance. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #5. ● Read pages A-34, A-35 and A-39 through A-43.
<p>#7: Describing Terminal & Entry Student Competencies (Half day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Group exercise on terminal student competencies. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #6. ● Read pages A-54 through A-60.
<p>#8: Describing Intermediate Student Competencies or Checkpoints (Full day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Group exercise on intermediate competencies or checkpoints. ● Individual exercise on levels of simulation. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #7. ● Read pages A-45 through A-49.
<p>#9: Planning for Evaluation (Half day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #8. ● Read pages A-63 through A-72.

SESSION	TOPICS & ACTIVITIES	ASSIGNMENT FOR NEXT SESSION
<p>#10: Designing Instructional Activities (Full day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Group exercise on designing instructional activities. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #9. ● Read pages A-72 through A-75.
<p>#11: Constructing a Syllabus & Session Plans (Half day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Group exercise on session plans. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #10. ● Read pages B-100 through B-111 & pages C-30 through C-58.
<p>#12: Constructing Test Items (Full day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Individual exercise on classifying test items. ● Group exercise on analyzing error matrix. ● Project writing session. 	<ul style="list-style-type: none"> ● Revise as needed Project Assignment #11. ● Prepare oral presentation of course design project.
<p>#13: Presenting Individual Projects and Evaluating the Workshop (Half or Full day) Date: _____</p>	<ul style="list-style-type: none"> ● Review and preview lecture/discussion. ● Presentation of participants' course design projects. ● Evaluation of workshop by participants. 	

SESSION PLAN #1: INTRODUCTION TO SYSTEMATIC COURSE DESIGN

(Half Day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Introduction of the participants	30 min
2. Mini-lecture/discussion:	30 min
● overall objectives of the workshop, specific objectives for session #1.	
● concept: "need to know" vs "nice to know" subject matter.	
3. Group exercises (one or both):	
● a strategy for course design.	45 min
● a critical incident survey.	45 min
4. Mini-lecture/discussion: the three phases of systematic course design	30 min
5. Mini-lecture/discussion: organization of the workshop.	15 min
6. Distribution of text and syllabus.	45 min
7. Mini-lecture/discussion:	15 min
● review of workshop objectives.	
● "housekeeping" details.	

REFERENCES/RESOURCES

- () Overhead Transparency #1.
- () Textbooks (SYSTEMATIC COURSE DESIGN),
one for each participant.
- () Syllabus for the Workshop, one for
each participant.

SESSION PLAN #1: INTRODUCTION TO SYSTEMATIC COURSE DESIGN

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Introduction of the Participants (30 min)

Introduce yourself and any co-leaders of the workshop. Then ask each participant to introduce himself/herself, saying something about:

- background
- present position
- teaching responsibilities
- reason for taking workshop.

2. Mini-lecture/discussion (30 min)

a. State that the workshop is designed to meet two main objectives:

- to introduce them to a particular process for designing courses in a systematic manner, and
- to provide them with opportunity to apply this systematic course design process to the instructional situation for which they are responsible.

b. State that this initial session is designed to give them a general picture or overview of the systematic course design process with which they will be working. I.e.,

- a conceptual framework for their work during the sessions.
- a rationale for why systematic course design should be taken seriously.

c. State that the latter part of this session will deal with the mechanics of the workshop:

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- specific objectives and how the workshop will be organized.
- their workshop assignments.

d. State these premises:

- In any course we teach, we usually have limited time to cover the subject matter.
- This means we must decide between "need to know" and "nice to know" course content.

e. Ask on what basis can we decide between "need to know" and "nice to know" course content?

Encourage participants to discuss this question.

If needed, clarify "need to know" vs "nice to know".

f. State that they will be learning a systematic course design process which will help them to decide between "need to know" and "nice to know" course content.

g. State this premise: An instructor teaches a course which covers much of what he/she thinks is "nice to know", but actually doesn't cover much of what the students really "need to know".

h. Ask how this hypothetical course with its emphasis on instructor-decided "nice to know" information might penalize the students in their future work?

Encourage participants to discuss this question.

Give one or more examples from your own past experiences as a student to facilitate their participation.

INSTRUCTIONAL ACTIVITIES

Ask them for examples from their own experiences.

1. State that they will be learning a systematic course design process that is intended to avoid these kinds of things from happening.

3. Group Exercises (Do A and/or B as time allows)

Exercise A (45 min): How to Build a Model or Strategy for Course Design.

- a. Divide class into groups of 6-10 participants.
- b. Ask participants to list questions which an instructor asks before he/she begins to plan a course or write a workshop. One individual in each group should write questions as listed by participants on the board. One participant should volunteer to be a spokesperson for each group.
- c. Ask participants to delete redundancies in list of questions and assign priorities. Ask, "Of the questions you have listed, which do you consider the most important?"
- d. Ask participants to sequence questions. Ask, "In what order would you ask these questions and why?"
- e. Ask participants to develop a diagram or flowchart summarizing their strategy. Ask, "How can these questions be translated into a strategy for course design, implementation and revision? Organize the steps in your strategy into a diagram or flowchart."
- f. Ask whole class to assemble. Spokesperson for each small group should summarize their model for course design. The instructor points out similarities between models and analyzes disparities.

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIESLEADER'S NOTESExercise B (45 min): A Critical Incident Survey

- a. State that one way to appreciate how systematic course design may be of help to the participants is to examine some of the frustrations and problems they've encountered in their own teaching efforts.
 - b. Ask each participant to think of a particular experience he or she has had recently as a teacher that was especially frustrating or troublesome.
 - c. Give some examples to guide them:
 - Course subject matter or topic assigned arbitrarily without any attention to what students really need to learn to prepare for their future professional work.
 - Time allocated for a course determined arbitrarily without adequate consideration of how long it took to teach the "need to know" content.
 - No real coordination among teachers responsible for related courses.
 - Little real support given for devoting time to final exams for testing how well students have learned.
 - d. Ask the participants to report to the group their individual experiences.
 - e. State that the systematic course design process they'll be learning will not solve these problems, but will give them a tool for thinking about these problems more systematically.
4. Mini-lecture/discussion (30 min): The Three Phases of Systematic Course Design.

INSTRUCTIONAL ACTIVITIES

a. Display OVERHEAD # 1 , The Systematic Course Design Model.

b. State that the systematic course design model described in their textbook has three main phases:

- Phase #1: Describing Future Professional Performance.

This phase focuses on on-the-job responsibilities of health workers, how to verify and analyze those responsibilities.

- Phase #2: Describing Student Competencies.

This phase shows how to develop instructional objectives in performance terms, and to plan student evaluation.

- Phase #3: Planning Student Learning.

This phase shows how to design instructional activities appropriate for meeting the course objectives. Syllabus and session plans are also developed.

c. Describe briefly what is meant by each phase, and relate the steps of the model to specific problems and points that came out of the discussions during the group exercises.

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

5. Mini-lecture/discussion (15 min):
Organization of the Workshop.

a. State that the workshop is organized
around a sequence of assignments.

- each assignment requires them to carry out a step or task of the systematic course design process.
- They do this by performing an individual project in which they will design a unit of instruction for a course for which they are responsible.
- Each assignment is described in an assignment handout which gives directions, provides examples, and makes clear the criteria for evaluation.

b. State that during the workshop,
they will be using various
materials:

- The workshop textbook, SYSTEMATIC COURSE DESIGN, by Segall, Vander-schmidt, Burglass and Frostman.
- The assignment handouts, already mentioned, which will be distributed at the time they are to be used.
- Some printed exercises in certain sessions, which will be distributed at that time.
- A syllabus of the workshop activities.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

6. Distribution of Text and Syllabus (45 min)

- a. Review the organization of the textbook with them by pointing out the main sections and asking them to find these in their copies as you do.
- b. Display OVERHEAD #1, The Systematic Course Design Model, and point out how the three phases align with the sections of the book.
- c. Point out the color coded tabs.
- d. Emphasize:
 - Unit A describes the systematic course design process.
 - Unit B has implementation exercises which will be used as needed.
 - Unit C describes a variety of methods and techniques they may want to use in designing and teaching their courses.
 - Unit D contains supplements including a Guidance System and a complete example of the materials they will develop during the workshop.
- e. Review the syllabus, suggesting they refer to it before and after each workshop session.

7. Mini-lecture/discussion (15 min)

- a. State the workshop objectives:
 - To enable the participants to develop a sufficient understanding of the systematic course design process to be able to use it on their own after the workshop is completed.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- To enable the participants to complete an individual project in which they apply the systematic course design process to a unit of their own instruction.
 - To motivate the participants to want to apply the process to their instruction after they leave the workshop.
- b. State that what is not covered in depth in the workshop is:
- Methods of instruction, but that they'll find detailed information in Unit C of the Text.
 - Methods for evaluating skills—such as in oral and practical examinations, but they will have some opportunity in Session #12, Constructing Test Items.
 - Analyzing examinations or tests.
- c. State the "Housekeeping" details for the workshop such as:
- Daily starting and ending times.
 - Luncheon times and arrangements.
 - Coffee/tea breaks.
 - Etc.
- d. Refer participants to syllabus for next session.

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN # 1

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	a) Did you <u>follow</u> directives?			b) Were directives <u>useful</u> ?		
	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	_____	_____	_____	_____	_____	_____
Instructional Activities:	_____	_____	_____	_____	_____	_____
Lectures/ Discussions:	_____	_____	_____	_____	_____	_____
Exercises:	_____	_____	_____	_____	_____	_____
Evaluation/ Feedback:	_____	_____	_____	_____	_____	_____

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES _____ NO _____

b) Were they helpful? YES _____ NO _____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES _____ NO _____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #2: DESCRIBING (a) THE INSTRUCTIONAL SITUATION &
(b) THE FUTURE PROFESSIONAL ROLE(S)

(Half day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: ● review of Session #1. ● overview upcoming tasks.	10 min
2. Project Assignment #1: Describing Instructional Situation.	40 min
3. Evaluation & feedback on Assignment #1.	30 min
4. Mini-lecture/discussion: Future Professional Role(s).	10 min
5. Individual Exercise #1: Describing Future Professional Role(s)	30 min
6. Project Assignment #2: Describing Future Professional Role(s)	5 min

REFERENCES/RESOURCES

- () Textbook pages A-1 through A-7.
- () Overhead Transparency #1.
- () Project Assignment #1 (one handout for each participant).
- () Individual Exercise #1 (one for each participant).
- () Project Assignment #2 (one for each participant).

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-Lecture/discussion (10 min):
Review/Preview
 - a. Point out that the preceding sessions have provided an introduction to the workshop:
 - An overview of systematic course design
 - A description of the workshop activities and objectives.
 - b. DISPLAY OVERHEAD TRANSPARENCY #1, THE SYSTEMATIC COURSE DESIGN MODEL.
 - c. Point out that they are now about to start applying the model. During the workshop each participant will be developing an instructional unit based on the systematic course design process described in the textbook and on this overhead.
 - d. Their individual projects involve a series of assignments.
 - Each assignment deals with a step in the systematic course design process:
 - There will be an "assignment handout" for each task of the individual project.
 - Each assignment handout states directions, criteria for evaluation and an example.
 - e. Explain that before getting into the major steps of the course design model, it is useful to first do some analysis of the instructional setting or situation in and around which the course will be designed. Such an analysis:

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- gives the instructor a perspective on the scope of the project, and
- helps the instructor communicate with others regarding each phase of the design process.

2. Assignment (40 min)

- a. Distribute Assignment Handout #1.
- b. Review the Assignment Handout.
 - Point out the Directions. Read or have them read the Directions. Ask for comments/questions.
 - Point out the Criteria. Read or have them read the Criteria. Ask for comments/questions.
 - Point out example.
 - Ask them to do the assignment.
 - Tell them it will take about 30 minutes.

3. Evaluation and feedback (30 min)

Depending on the size of the group and upon time constraints, have each participant read his/her description of the instructional situation

- to the whole group, or
- to members of smaller group.

Encourage participants to interact and to ask questions when certain items are not clear.

4. Mini-lecture/discussion (10 min)

- a. Display OVERHEAD TRANSPARENCY #1,
THE SYSTEMATIC COURSE DESIGN MODEL

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- Point where they are in the model: Describing the future professional role or roles for the students in the instructional situation the participants just completed.
- Point out the next step: Once they've described the future professional role or roles, they can list the professional responsibilities for a given role.

- b. Point out the definition of future professional role in the textbook and note the examples below it:

Textbook page A-7.

- c. Highlight the requirements for a satisfactory identification of a future professional role:

- Position title or the equivalent
- Setting or situation.

5. Individual Exercise #1 (30 min): Describing Future Professional Roles.

Note: This is an individual exercise. You should use it if you think your participants may have trouble coming up with adequate statements of future professional roles.

- a. Distribute Exercise 1.
- b. Point out the directions at the top of the exercise. Read or have them read the directions. Ask for comments/questions.
- c. Ask them to do the exercise. It will take 15 minutes.
- d. When they have finished the exercise, ask for comments/questions about the specific problems in it.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

6. Assignment (5 min):
- a. Distribute the assignment handout #2.
 - b. Review the assignment.
 - Point out the Directions. Read or have them read the Directions. Ask for comments/questions.
 - Point out the Criteria. Read or have them read the Criteria. Ask for comments/questions.
 - Point out examples.
 - Ask them to do the assignment. Tell them it will take about 10 minutes.
 - c. Plan evaluation and feedback. See page 6 of Section I. Enter below the way you have decided to give evaluation and feedback.

Note: If evaluation and feedback are to be provided during the next session, modify Session Plan #3 accordingly to allow for time changes, etc.

- d. Refer participants to syllabus for next session.

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN #2

1. In preparing for this session, did you read the Leader's Guide?

YES ____ NO ____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>		<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	___	___	___		___	___	___
Instructional Activities:	___	___	___		___	___	___
Lectures/ Discussions:	___	___	___		___	___	___
Exercises:	___	___	___		___	___	___
Evaluation/ Feedback:	___	___	___		___	___	___

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES ____ NO ____

a) If yes, were directives clear? YES ____ NO ____

b) Were criteria clear? YES ____ NO ____

c) Did examples help? YES ____ NO ____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #3: LISTING PROFESSIONAL RESPONSIBILITIES

(Full day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: <ul style="list-style-type: none">● review of Session #2.● overview of upcoming tasks.	30 min
2. Optional group exercise: Levels of Detail.	30 min
3. Group exercise: Listing Professional Responsibilities	45 min
4. Project Assignment #3: Listing Professional Responsibilities	2 1/2 hrs
5. Evaluation and feedback.	1 hr

REFERENCES/RESOURCES

- () Textbook pages A-8 through A-10.
- () Overhead Transparency #1.
- () Project Assignment #3 (one for each participant).

SESSION PLAN #3: LISTING PROFESSIONAL RESPONSIBILITIES

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (30 min):
 - a. Display OVERHEAD TRANSPARENCY #1,
THE SYSTEMATIC COURSE DESIGN MODEL.
 - b. Point out the steps they have done so far:
 - Instructional situation (not shown).
 - Future professional role or roles.
 - c. Point out the next step in the model:

Professional responsibilities
 - d. State that for purposes of their individual systematic course design projects in this workshop, they will select a single professional role from Assignment #2 and list responsibilities for it.
 - e. Listing professional responsibilities is an especially important part of systematic course design:
 - How well they list responsibilities will affect the work they do on all of the later steps.
 - In their individual projects, they will be working with a particular responsibility from the list they are about to develop.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

f. It is not intended that they list all of the professional responsibilities for the future professional role - only those professional responsibilities pertinent to the subject-matter of their course (that is, the instructional situation described earlier).

g. Point out the definition of professional responsibilities and the sample lists of responsibilities:

Textbook pages A-8 through A-10.

h. Highlight the requirements for a satisfactory list of professional responsibilities:

- Only those pertinent to the instructional situation described in Session #2.

- Each statement of a professional responsibility must make clear what the person does in the future professional role.

Give examples of acceptable and non-acceptable statement of professional responsibilities; for example, for the role of surgeon:

- "Performs surgery" is too general; doesn't identify the kinds of surgery.

- "Selects the proper surgical instruments" is too specific to be a responsibility; it would be one skill within a broader responsibility.

- "Uses good judgment" is too vague for a responsibility; it doesn't make clear the behaviors involved; more of an attitude component of a responsibility or skill.

INSTRUCTIONAL ACTIVITIES

- j. Give additional examples of acceptable and non-acceptable statements of responsibilities; always make clear when you do so the future professional role involved.

2. Optional Group Exercise (30 min): Levels of Detail.

Note: If you judge that your participants may need special help in stating responsibilities - may tend to state them too broadly or narrowly - you may administer as an instructor-led group exercise Illustration 12, Question 3 textbook page B-53. The directions are stated below.

- a. Tell the participants you will read to them, one at a time, statements of responsibilities for the future responsibility of a general nurse.
- b. As you read each responsibility, you want them to judge whether it is:
 - Too broad
 - Too specific
 - About right
- c. Read each responsibility.
- d. Ask for their judgements about the level of detail of each responsibility. Ask for explanations of their responses to each responsibility.
- e. Give feedback as stated on textbook page B-54.

LEADER'S NOTES

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN #3

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	a) Did you <u>follow</u> directives?			b) Were directives <u>useful</u> ?		
	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	_____	_____	_____	_____	_____	_____
Instructional Activities:	_____	_____	_____	_____	_____	_____
Lectures/ Discussions:	_____	_____	_____	_____	_____	_____
Exercises:	_____	_____	_____	_____	_____	_____
Evaluation/ Feedback:	_____	_____	_____	_____	_____	_____

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #4: ANALYZING RESPONSIBILITIES:
SKILLS/KNOWLEDGE/ATTITUDES

(Full day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: <ul style="list-style-type: none">● review of Session #3.● overview of upcoming tasks.	45 min
2. Individual Exercise #2: Identifying Skill/Knowledge/Attitude Components	1 hour
3. Group exercise: Analyzing Skill/Knowledge/Attitude Components	45 min
4. Project Assignment #4: Analyzing Skill/Knowledge/Attitude Components	2½ hrs
5. Evaluation and feedback	1 hour

REFERENCES/RESOURCES

- () Textbook pages A-11 through A-13.
- () Overhead Transparency #1.
- () Individual Exercise #2 (one for each participant).
- () Project Assignment #4 (one for each participant).

SESSION PLAN #4: ANALYZING RESPONSIBILITIES: SKILLS/KNOWLEDGE/ATTITUDES

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (45 min):
 - a. Display OVERHEAD TRANSPARENCY #1,
THE SYSTEMATIC COURSE DESIGN MODEL
 - b. Point out the steps completed so far:
 - Description of instructional situation (not shown)
 - Identification of future professional role(s)
 - List of professional responsibilities for a specific future role.
 - c. Point out the step they're at now:

Analyze skill, knowledge, attitude components for a specific professional responsibility.
 - d. Outline the rationale for analyzing the skill/knowledge/attitude components of each responsibility:
 - To meet a given responsibility, the professional must have the necessary skills, knowledge and attitudes.
 - The function of instruction is to enable the students to acquire and develop the skills, knowledge and attitudes needed to meet the responsibilities toward which the course is directed.
 - Hence, the systematic design of instruction requires an analysis of the skill, knowledge and attitude components underlying each responsibility.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- e. Write "Skills", "Knowledge" and "Attitudes" as column heads on chalkboard/flipchart.
- f. State definitions based on the textbook (page A-11) and give one or more examples of each:
- First identify the future professional role and specific responsibility; e.g.,

Role: nurses' aide in large hospital

Responsibility (one of many): make up a bed with clean bed-sheets and pillowcase for a patient who is confined to the bed.
 - Then give one or more skills involved in the responsibility; e.g.,

Help the patient to lie on her/his side on one side of the bed,
 - Then identify one or more knowledge and attitude components for that skill; e.g.,

Recognize any problems that may arise in having the patient turn to a sideways position.

Handle the patient gently; be especially cautious of bandages, sore areas, etc.
- g. Give more examples for the same role-responsibility above or a new responsibility for that role. Or give new roles-responsibilities and examples of skill, knowledge, and attitude components for these. The examples you use can be selected from the textbook.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

h. Emphasize the importance of alignment of skills with their associated knowledge components.

2. Individual Exercise (1 hr): Identifying Skill/Knowledge/Attitude Components.

a. Distribute page 1 of Exercise #2.

b. Read through the directions for Part A at the top or ask participants to do so. Ask for comments/questions.

c. Ask them to do the exercise.

d. When everyone has finished, look at page 2 and ask for comments/questions.

e. Repeat process with Part B, pages 2 and 3.

3. Group Exercise (45 min): Analyzing Skill/Knowledge/Attitude Components.

Note: This is continuation of the carry-through group/team exercise begun in Session #2.

a. State a role and responsibility or ask participants to do so. The role should be the one used in Sessions 2, 3. The responsibility should be one of those they listed in Session 3.

b. Ask for a list of skills for the responsibility. Write these on the chalkboard/flipchart as they are offered. Ask for comments/questions as skills are listed. Ask whether the skill makes clear the behavior involved -- is there an action verb used for this purpose?

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- c. Next ask for knowledge components for each skill, one skill at a time. Ask for comments/questions as the knowledge components are offered. Write these to show their alignment with the skill.
 - d. Finally, ask for attitude components and write these. Ask for comments/questions. Emphasize that an attitude component can cover more than one skill and that a skill may have more than one knowledge component.
4. Assignment (2½ hrs).
- a. Distribute assignment handout #4.
 - b. Review the assignment
 - Read or have participants read the Directions, Criteria and Examples.
 - Ask for comments/questions
 - Ask them to do the assignment. Time allocated: 2 hours.
 - Tell them how evaluations and feedback will be given.
5. Give evaluation and feedback (1½ hrs).
- a. Enter below the way you will give evaluation and feedback for their work on the assignment.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- b. Refer participants to syllabus for next session.

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN # 4

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	a) Did you <u>follow</u> directives?			b) Were directives <u>useful</u> ?		
	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	_____	_____	_____	_____	_____	_____
Instructional Activities:	_____	_____	_____	_____	_____	_____
Lectures/ Discussions:	_____	_____	_____	_____	_____	_____
Exercises:	_____	_____	_____	_____	_____	_____
Evaluation/ Feedback:	_____	_____	_____	_____	_____	_____

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #5: CONDUCTING A PERFORMANCE ANALYSIS

(Full day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: <ul style="list-style-type: none">● review of Session #4.● overview of upcoming tasks.	45 min
2. Exercise: Conducting a Performance Analysis One or both: <ul style="list-style-type: none">● as a group (alternative A)● as individuals (alternative B)	4-6 hrs
3. Evaluation and feedback.	1 hour

REFERENCES/RESOURCES

- () Textbook pages A-16/A-29 and C-3/C-28
- () Overhead Transparency #1

SESSION PLAN #5: CONDUCTING A PERFORMANCE ANALYSIS

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (45 min)

a. Display OVERHEAD TRANSPARENCY #1,
THE SYSTEMATIC COURSE DESIGN MODEL.

b. Point out that the participants
have now developed what we call an
initial mastery description (write
this on chalkboard/flipchart).
Initial mastery description includes,
in the full scale systematic course
design model, the following (write
these as you state them, and refer
to the overhead):

- Identification of future role(s).
- List of professional responsibilities
for each role (or a list of generic
professional responsibilities for
basic courses having many future
roles).
- Skill, knowledge, and attitude
components for each responsibility.

c. The issue with which we are now
concerned is verification of the
initial mastery description, which
may take various forms:

- A formal performance analysis
study in which data is collected
about actual professional perfor-
mance, on which the initial mastery
description can be revised as neces-
sary.
- An informal performance analysis in
which a qualified colleague reviews
the initial mastery description,
and revisions are then made as
necessary.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- d. With respect to their work so far on their project, the participants have a limited initial mastery description:
- Identification of future role(s).
 - List of professional responsibilities for one role
 - Skill, knowledge, and attitude components for one responsibility only.
- e. Overview of methods for performance analysis, summarizing existing methods of performance analysis (pp C-3/C-28) stressing simple techniques such as the group interview and checklist.

2. Exercise (4-6 hrs): Conducting a Performance Analysis

Note: Do A and/or B.

Alternative A: Group exercise

- a. Participants choose one project from their group for performance analysis. The project selected should have the following characteristics:
- The responsibilities of the health professionals should be such that the group as a whole can understand the responsibilities and the tasks involved.
 - Individual(s) should be available in the community who could be used to verify the responsibilities. Such individual(s) might include experienced practitioners, experts or both.
- b. Participants then choose an appropriate simple method of performance analysis using the methods described on pages C-3/C-28. They then develop a set of questions appropriate to the performance analysis method selected.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- c. Participants decide how to administer instrument and prepare report. Questions might include:

Here is a job description (list of professional responsibilities) and task analysis (analysis of responsibilities for the position _____).

- Please indicate whether or not you perform each of these tasks.
 - If not, please indicate why not.
 - Please indicate which of these responsibilities you consider to be most important.
 - Please indicate how often you perform these responsibilities; once or twice a month, weekly, daily, hourly.
 - Does this listing omit any of your responsibilities/tasks? If so, please list.
 - Do you perform any of your responsibilities differently than described here? Please explain.
- d. Performance Analysis is carried out by participants (probably outside of workshop setting).
- e. Group discusses interview, identifies performance discrepancies (see pp A-20/A-21) and makes any necessary adjustments to initial description of professional performance (see pages A-24/A-29).

Alternative B: Individual Exercise

Within the workshop constraints, to the extent that it is feasible, each participant

INSTRUCTIONAL ACTIVITIES

- a. chooses a method of performance analysis for his/her own project (see pages A-18/A-20 and C-3/C-28).
- b. develops appropriate questions and instruments.
- c. applies the instruments and analyzes the results.
- d. determines if performance discrepancies exist and decides what action to take (see pages A-20/A-21).
- e. revises the initial description of performance (see pages A-24/A-29).

3. Give evaluation and feedback (1 hour)

- a. Enter below the way you have decided to give evaluation and feedback for Exercises A and/or B.
Note: Any changes in the participants' initial mastery descriptions should be reflected by modification in Project Assignments #3 and 4.

LEADER'S NOTES

b. Refer to syllabus for next session.

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN #5

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	a) Did you <u>follow</u> directives?			b) Were directives <u>useful</u> ?		
	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	---	---	---	---	---	---
Instructional Activities:	---	---	---	---	---	---
Lectures/ Discussions:	---	---	---	---	---	---
Exercises:	---	---	---	---	---	---
Evaluation/ Feedback:	---	---	---	---	---	---

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #6: DESCRIBING CONDITIONS & PERFORMANCE

(Half day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: <ul style="list-style-type: none">● review of Session #5.● overview of upcoming tasks.	45 min
2. Group exercise: Describing Conditions & Performance	45 min
3. Project Assignment #5: Describing Conditions & Performance.	70 min
4. Evaluation and feedback.	45 min

REFERENCES/RESOURCES

- () Textbook pages A-34 through A-38.
- () Overhead Transparency #1
- () Project Assignment #5 (one for each participant).

SESSION PLAN #6: DESCRIBING CONDITIONS AND PERFORMANCE

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (45 min)
 - a. Display OVERHEAD TRANSPARENCY #1,
THE SYSTEMATIC COURSE DESIGN MODEL.
 - b. Point out the steps dealt with so far:
 - Instructional situation
 - Future professional role(s)
 - Professional responsibilities
 - Skill, knowledge, attitude
components
 - Performance analysis - revised
mastery description
 - c. Point out what comes next:

Professional competencies.
 - d. Before we can design instruction
for a given responsibility, two
problems must be addressed:
 - The professional responsibilities
have not been stated in a manner
that makes clear two key aspects
of the competence needed to meet
a given responsibility: the
conditions and performance involved.
 - Professional competence results
from a combination of instruction
and later practical experience.
Thus, to design instruction we
must determine just how closely
our objectives can match the
conditions and performance of
professional competence.
 - e. We first translate a professional
responsibility into a statement of
the required professional competency
by describing the professional con-
ditions and performance.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- f. We later establish for each professional competency what we call the terminal student competency - a description of the conditions and performance we can reasonably expect our students to achieve within our instructional situation.
- g. Finally, we must determine or estimate what we call the entry student competencies - the skills, knowledge, and attitudes that students will have when they enter the instructional situation.
- h. Write "Conditions" and "Performance" on the chalkboard/flipchart to form two columns; e.g.,

<u>CONDITIONS</u>	<u>PERFORMANCE</u>
-------------------	--------------------

- State the definitions of conditions and performance; see textbook page A-37.
- List what conditions may include, which appears below the definition on page A-37 (e.g., (a) other people, etc.).
- Describe a sample professional competency, making entries on the chalkboard/flipchart as you do. For example, describe the example from textbook page A-38.

2. Group Exercise (45 min): Describing Conditions & Performance

- a. State a professional responsibility or ask participants to do so. You may want to use the analyzed responsibility from the carry-through exercise in previous sessions.
- b. Ask participants to describe the professional conditions for that responsibility. Guide this by

INSTRUCTIONAL ACTIVITIES

pointing to the list of possible conditions, page A-37 (i.e., (a) other people, etc.).

- c. Now ask them to describe the professional performance.

(NOTE: You may prefer to ask the participants to describe the professional competency involved and leave to them whether conditions or performance is described first.)

- d. Ask for comments/questions on the resulting description.

3. Assignment (70 min)

- a. Distribute assignment handout #5.

- b. Review assignment

- Read or have participants read the Directions, Criteria and Examples.
- Ask for comments/questions.
- Ask them to do the assignment.
- Tell them how much time has been allocated: 1 hour.
- Tell them how evaluation and feedback will be given.

4. Give evaluation and feedback (45 min)

- a. Enter below the way in which evaluation and feedback will be given.

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- b. Refer to syllabus for next session

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN # 6

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>		<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	_____	_____	_____		_____	_____	_____
Instructional Activities:	_____	_____	_____		_____	_____	_____
Lectures/ Discussions:	_____	_____	_____		_____	_____	_____
Exercises:	_____	_____	_____		_____	_____	_____
Evaluation/ Feedback:	_____	_____	_____		_____	_____	_____

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #7: DESCRIBING TERMINAL AND ENTRY STUDENT COMPETENCIES

(Half day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: <ul style="list-style-type: none">● review of Session #5.● overview of upcoming tasks.	45 min
2. Group exercise: Describing Terminal Student Competencies.	45 min
3. Mini-lecture/discussion: Entry Student Competencies.	30 min
4. Project Assignment #6: Describing Terminal & Entry Student Competencies.	70 min
5. Evaluation and feedback.	60 min

REFERENCES/RESOURCES

- () Textbook pages A-34, 35 and A-39/43.
- () Overhead Transparency #1.
- () Project Assignment #6 (one for each participant).

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (45 min):
 - a. Display OVERHEAD TRANSPARENCY #1, THE SYSTEMATIC COURSE DESIGN MODEL.
 - b. Point out the steps covered so far;
 - Instructional situation
 - Future professional role(s)
 - Professional responsibilities
 - Performance analysis
 - Professional conditions and performance
 - c. Point out what they're involved in in this session:
 - Terminal student competencies (sometimes called end-of-instructional or terminal objectives).
 - Entry student competencies (sometimes called prerequisites).
 - d. Define "terminal competency"; see textbook page A-34. Give "end-of-course" or "terminal" objectives as synonyms.
 - e. State examples of professional responsibilities and associated terminal student competencies; see textbook page A-35 for examples.
 - f. Ask why it is necessary to describe terminal student competencies? Why not simply instruct the desired professional competencies? (Possible answers):

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- Professional competency can only be developed via practical experience following instruction.
- Resources and time available for the instructional situation may limit how closely professional competencies can be approximated.
- g. Ask what role terminal student competencies - sometimes called end-of-course or terminal objectives - have or should have in the design of instruction? (Possible answers):
 - Basis for deciding end-of-course evaluations, such as final examinations (whether oral, practical, or written).
 - Basis for deciding appropriate instructional activities.
- h. Using the earlier example of a description of professional competency - page A-40, write the associated terminal student competencies (NOTE: there are three levels in the example; write all three).
- i. Ask how the 3 statements of student terminal competencies differ - and what they have in common?
- j. Ask what considerations might enter into deciding which level of approximation or simulation listed would be the terminal student competency for an instructional situation?
 - Resources available.
 - Time available for course.
 - Administrative/policy considerations (a higher level simulation may already be assumed as the prerequisite of some later, more advanced course.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- k. Ask, one-by-one, whether the description of the terminal student competency would enable an instructor to construct an appropriate final examination of that competency.
- l. Point out that the course might include all three competencies, with the highest as the terminal student competency. In that case, the two lower level simulations would be called intermediate student competencies, which will be taken up in the next instructional unit of this workshop.
- m. Point out that when they are describing terminal student competencies, it can be helpful to consider two or more levels of simulation; and that the ideal is to establish the highest feasible level of simulation, given the resources and time available.

Group Exercise (45 min): Describing Terminal Student Competencies.

NOTE: This is continuation of the carry-through group/team exercise for this workshop.

- a. State the professional responsibility and describe the professional competency from Session #6.
- b. Ask participants to describe at least three levels of simulation as possible terminal student competencies.
- c. Ask for comments/questions on the resulting descriptions:
 - Could they (assuming adequate subject-matter knowledge) construct the appropriate final examination for each competency?

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- What factors might determine the feasibility of using each competency for a given course?

3. Mini-lecture/discussion (30 min):

- a. Students enter instructional situations with various entry skills, knowledge, and attitudes. Thus, it is our responsibility to help them get from their entry student competencies to the terminal student competencies as effectively and efficiently as possible.
- b. To make clear just what entry student competencies are involved, we should, ideally, describe these entry student competencies for each terminal student competency.
- c. If we don't have a clear picture of our students' entry competencies, what negative consequences might result? (possible answers):
 - Ineffective instruction to the extent that students lack the prerequisites we are assuming.
 - Inefficient instruction to the extent that students already possess skills and knowledge we are teaching.
- d. In theory, therefore, determining entry student competencies is highly desirable if not essential for truly effective, efficient instruction.
- e. What practical problems may stand in the way of our determining the entry student competencies for our instructional situations? (possible answers):

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- May not have any way to obtain the data/information needed to describe entry student competencies.
- Entry student competencies may be so variable that no general consensus can be established.

f. Suppose we can't collect the data/information needed? How can we deal with the problems of entry student competencies and course prerequisites? (possible solutions):

- Guesstimate on basis of past experience
- Build individualized modular instruction that incorporates pretests and prerequisite tests for selective access to instructional activities/materials and includes remedial paths (NOTE: This is very expensive and involves concepts that will be treated in detail in the next instructional unit).

g. Inform participants that they are expected to at least estimate the entry student competencies for the terminal student competency they describe in the assignment.

4. Assignment (70 min):

- a. Distribute assignment handout #6.
- b. Review the assignment:
 - Read Directions, Criteria and Examples.
 - Ask for comments/questions.
 - Ask them to do the assignment.

INSTRUCTIONAL ACTIVITIES

- Tell them how much time has been allocated: 1 hour.
- Tell them how evaluation and feedback will be given.

5. Give evaluation and feedback (1 hr):

- a. Enter below the way in which evaluation and feedback will be given.

- b. Refer to syllabus for next session.

LEADER'S NOTES

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN #7

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>		<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	_____	_____	_____		_____	_____	_____
Instructional Activities:	_____	_____	_____		_____	_____	_____
Lectures/ Discussions:	_____	_____	_____		_____	_____	_____
Exercises:	_____	_____	_____		_____	_____	_____
Evaluation/ Feedback:	_____	_____	_____		_____	_____	_____

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #8: DESCRIBING INTERMEDIATE STUDENT COMPETENCIES OR
CHECKPOINTS

(Full day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: <ul style="list-style-type: none">● review of Session #7.● overview of upcoming tasks.	1 hour
2. Group exercise: Describing Intermediate Competencies or Checkpoints.	45 min
3. Individual exercise #3: Levels of Simulation.	45 min
4. Project Assignment #7: Describing Intermediate Student Competencies or Checkpoints.	2 hours
5. Evaluation and feedback.	1 hour

REFERENCES/RESOURCES

- () Textbook pages A-54 through A-60
- () Overhead Transparency #1.
- () Overhead Transparency #2.
- () Individual Exercise #3 (one for each participant).
- () Project Assignment #7 (one for each participant).

**SESSION PLAN #8: DESCRIBING INTERMEDIATE STUDENT COMPETENCIES
(CHECKPOINTS)**

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (60 min):
 - a. Display OVERHEAD TRANSPARENCY #1, THE SYSTEMATIC COURSE DESIGN MODEL.
 - b. Point out what participants have accomplished in the preceding assignments
 - Instructional situation
 - Future professional role(s)
 - Professional responsibilities
 - Skill, knowledge, attitude components
 - Performance analysis
 - Professional conditions and performance
 - Terminal and entry student competencies
 - c. Point out the major remaining tasks for planning student learning:
 - Define intermediate competencies or checkpoints, the next assignment.
 - Design instructional activities, for the student competencies: entry, intermediate, terminal.
 - Develop a partial syllabus and a session plan for the instructional unit on which they have been working in their model project.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- d. Note that by this point in actual practice, participants would have entry and terminal student competencies described for all of the analyzed responsibilities pertinent to their instructional situation.
- e. Given the entry and terminal student competencies from the preceding assignment, the question is what intermediate competencies or checkpoints must be in the instructional or learning path from entry to terminal?
- It is usually the case that an instructional unit involves a sequence or series of activities that enable the student to develop the skill and knowledge components leading towards the terminal student competency.
 - To design instructional or learning activities for this path (which is the next assignment after this), it is necessary to describe the intermediate competencies or checkpoints that can form such an instructional or learning path from the entry to the terminal student competencies.
- f. Display OVERHEAD TRANSPARENCY #2: INSTRUCTIONAL TIMELINE.
- g. Define intermediate competencies (same as intermediate levels of simulation or checkpoints) textbook page A-56.
- h. Describe two kinds of intermediate competencies or checkpoints:
- Lower-level simulations of entire terminal student competency,
 - Intermediate competencies concerned with pertinent skill, knowledge, attitude components of the analyzed responsibility in question.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- Refer to page A-57.

1. Ask group to turn to pages A-58/60.

- Go through the example, highlighting the intermediate competencies or checkpoints and the difference between those dealing with lower-level simulations of the entire terminal student competency and those dealing with isolated skill, knowledge, attitude components.

- Ask which intermediate competencies or checkpoints in the example it might be desirable or necessary to evaluate formally via progress checks or tests during the instruction, and why.

2. Group Exercise (45 min): Describing Intermediate Competencies or Checkpoints.

NOTE: This is continuation of the workshop carry-through exercise.

- a. State the professional responsibility or competency which you've been working with during the carry-through group/team exercise in this workshop.
- b. Ask participants to describe two or more alternative terminal student competencies at different levels of simulation.
- c. Ask them to order these from highest to lowest level of simulation.
- d. Ask whether each makes clear a test that could be used to evaluate its attainment.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

3. Individual Exercise (45 min): Levels of Simulation.
 - a. Distribute Individual Exercise #3.
 - b. Read through the directions. Ask for comments/questions.
 - c. Ask participants to do the exercise, and tell them about how long it will likely take: 45 minutes.
 - d. Ask for comments/questions on the exercise after all have completed it.

4. Assignment (2 hrs):
 - a. Distribute Project Assignment #7, Describing Intermediate Student Competencies or Checkpoints.
 - b. Read through the directions, criteria and examples. Ask for comments/questions.
 - c. Ask them to do the assignment. It will take about 1 hr. 45 min.
 - d. Describe how evaluation and feedback will be given.

5. Give Evaluation and feedback (1 hr):
 - a. Enter below the way evaluation and feedback will be given.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

b. Refer to syllabus for next session.

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN # 8

1. In preparing for this session, did you read the Leader's Guide?

YES ____ NO ____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>		<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	___	___	___		___	___	___
Instructional Activities:	___	___	___		___	___	___
Lectures/ Discussions:	___	___	___		___	___	___
Exercises:	___	___	___		___	___	___
Evaluation/ Feedback:	___	___	___		___	___	___

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES ____ NO ____

a) If yes, were directives clear? YES ____ NO ____

b) Were criteria clear? YES ____ NO ____

c) Did examples help? YES ____ NO ____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #9: PLANNING FOR EVALUATION

(Half day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Lecture/discussion: <ul style="list-style-type: none">● review of Session #8.● overview of upcoming tasks.● needs for evaluation.	1 1/2 hours
2. Project Assignment #8: Planning for Evaluation	1 1/2 hours
3. Evaluation and feedback.	30 min

REFERENCES/RESOURCES

- () Textbook pages A-45 through A-49.
- () Overhead Transparency #1.
- () Overhead Transparency #2.
- () Overhead Transparency #3.
- () Overhead Transparency #4.
- () Project Assignment #8 (one for each participant.)

SESSION PLAN #9: PLANNING FOR EVALUATION

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Lecture/discussion (1 1/2 hours):

a. Display OVERHEAD TRANSPARENCY #1,
THE SYSTEMATIC COURSE DESIGN MODEL.

b. Point out the accomplishments so
far on their projects:

- Instructional situation.
- Future professional role(s)
- Professional responsibilities.
- Skills, knowledge, attitude
components.
- Performance analysis.
- Professional conditions & perfor-
mance.
- Terminal, entry student compe-
tencies.
- Intermediate competencies.

c. Point out the step they are at now
and what follows next:

- Needs for evaluation.
- Instructional activities.

d. Stress need to plan for evaluation.

Evaluations - progress tests, final
examinations - are instructional
activities. Thus, we must plan
needs for evaluation before we can
design instructional activities for
our terminal and intermediate
student competencies.

INSTRUCTIONAL ACTIVITIES

- e. Refer participants to the diagram on page A-62, A General Evaluation Plan.
- f. First highlight the general evaluation plan. For example, ask questions such as these:
- What do we mean by a posttest?
A pretest? A prerequisite test?
 - What does it tell you if a student passes/fails...
 - a pretest?
 - a prerequisite test?
 - a posttest?
 - What determines whether the posttest is oral, practical, written, or a combination of these?

The answer is the nature of the terminal student competencies, the optimum or highest feasible level of simulation of the professional competency (conditions-performance) for your instructional situation.
 - Suppose your instructional situation deals with five pertinent professional responsibilities. How would that affect the posttest?

The answer is that the posttest might have five different main test items, one for each terminal student responsibility.
 - Under what conditions would it be reasonable to use a pretest?

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

If you know that some students will enter the instructional situation already possessing some of the student terminal competencies (Note: not if they may lack prerequisite entry competencies, which require a prerequisite test as below).

NOTE: Point out that use of a pre-test implies that students can bypass the instruction for specific terminal student competencies.

- Under what conditions would it be reasonable to use a prerequisite test?

If you know that students will vary with respect to their entry prerequisite competencies.

NOTE: Point out that use of prerequisite tests implies the availability of remedial instruction.

g. Now highlight the information on progress tests.

- Brief checktests.
- Teaching observations.
- Selftests.

h. Point out that where a course has a number of instructional units, each concerned with a terminal student competency, progress tests for that course might include:

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

- Interim exams or tests within an instructional unit, such as a test covering all of the knowledge components for a terminal student competency. .
 - Interim exams or tests within the course, such as end-of-instructional unit tests for terminal student competencies.
- i. To plan your needs for evaluation, it can help to think of an instructional time-line or path. Display OVERHEAD TRANSPARENCY #2, INSTRUCTIONAL TIME-LINE.
- j. Highlight these features:
- The time-line shows the instructional path for a unit of instruction
 - Starts at the left with entry competencies.
 - Moves through the intermediate competencies.
 - Concludes with the terminal competency.
 - We must design a progression of instructional activities to enable the student to move from the entry competencies to the terminal competency via the intermediate competencies.
- k. Display OVERHEAD TRANSPARENCY #3, TWO KINDS OF INTERMEDIATE COMPETENCIES. Highlight these features:
- When we think of the intermediate competencies forming the path from entry to terminal competencies, it can help to distinguish two kinds of intermediate competencies:

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

Intermediate competencies based on skill, knowledge, and attitude components of the responsibility on which the instructional unit is based - isolated competencies.

Intermediate competencies that are lower-level simulations of the terminal competency.

- If you think it helpful, give examples here (such as on page A-60) or ask the students for examples of this distinction.

1. Display OVERHEAD TRANSPARENCY #4, PLANNING EVALUATION. Highlight these features:

- You may include a prerequisite test in an instructional unit as appropriate to determine whether students have the entry competencies you are assuming. If you do, you will need to provide remedial instructional activities for those who reveal weaknesses on the prerequisite test.
- There may be one or more instructional activities as needed for a given intermediate competency.
- The numerals in parentheses indicate progress checks for intermediate competencies. For example,

Interim examinations of oral, practical, or written nature for the isolated intermediate competencies associated with skill, knowledge, and attitude components.

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

Interim examinations that test as appropriate for intermediate competencies that involve lower-level simulations of the terminal competency.

- A posttest for the terminal competency.

You may at this point want to re-examine the example used in (k) above (e.g., page A-60) to relate the competencies listed to this timeline.

2. Assignment (1 1/2 hrs).

a. Distribute Assignment Handout #8.

b. Review the assignment:

- Read the Directions and Criteria. Ask for comments/questions.
- Ask participants to do the assignment.
- Time allocated: about 1 hr. 15 min.
- State how evaluation and feedback will be given.

3. Give evaluation and feedback (30 min)

a. Enter below the way in which evaluation and feedback will be given.

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

b. Refer to syllabus for next session

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN # 9

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>		<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	_____	_____	_____		_____	_____	_____
Instructional Activities:	_____	_____	_____		_____	_____	_____
Lectures/ Discussions:	_____	_____	_____		_____	_____	_____
Exercises:	_____	_____	_____		_____	_____	_____
Evaluation/ Feedback:	_____	_____	_____		_____	_____	_____

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #10: DESIGNING INSTRUCTIONAL ACTIVITIES

(Full day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: <ul style="list-style-type: none">● overview of Session #9.● review of upcoming tasks.	45 min
2. Group exercise: Designing Instructional Activities	1 1/2 hrs
3. Project Assignment #9: Designing Instructional Activities.	3 1/2 hrs
4. Evaluation and feedback.	1 1/2 hrs

REFERENCES/RESOURCES

- () Textbook pages A-63 through A-72.
- () Overhead Transparency #1.
- () Project Assignment #9 (one for each participant).

SESSION PLAN #10: DESIGNING INSTRUCTIONAL ACTIVITIES

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (45 min)
 - a. Display OVERHEAD TRANSPARENCY #1,
THE SYSTEMATIC COURSE DESIGN MODEL.
 - b. Point out the work accomplished so far on their projects:
 - Instructional situation.
 - Future professional role(s).
 - Professional responsibilities.
 - Skill, knowledge, attitude components.
 - Performance analysis.
 - Professional conditions and performance.
 - Terminal, entry student competencies.
 - Intermediate competencies.
 - Needs for evaluation.
 - c. Point out where they're at now:

Designing instructional activities.
 - d. Refer participants to the table of instructional functions in the text-book, pages A-64, 65, throughout the following points.
 - Providing a frame of reference

Whenever appropriate, you should include instructional activities to introduce a course, an instructional unit

INSTRUCTIONAL ACTIVITIES

within a course, or instruction for a given intermediate competency within an instructional unit.

Note the examples in the table.

Point out how your workshop has included both an overall introduction and introductions to each session.

- Providing a reason to learn

As with providing a frame of reference, whenever appropriate you should include instructional activities that provide reasons for learning what is being taught - in the course, in each instructional unit, and for teaching of given intermediate competencies within units.

Note the examples in the table.

Point out how your workshop has accomplished this. For example, the activities at the start of the workshop to help them understand the potential benefits of systematic course design.

- Shaping student attitudes

In connection with providing frames of reference and reasons for learning, opportunities may exist for shaping the desired student attitudes.

Note the examples in the table.

Point out how you have tried to do this in your workshop. For example, your conviction and

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

enthusiasm about using systematic course design; the use of clear criteria for evaluating their work in each instructional unit; the requirement that they apply the systematic course design model and not just learn to talk about it.

- Transmitting information

For students to learn, they must be provided with the necessary information. The important thing to realize is that there are various ways other than the lecture to transmit information.

Note the examples in the table.

Point out the various ways you have used so far in the workshop to transmit information, including:

Brief lectures.
Overhead transparencies
Handouts
The textbook, which includes definitions, examples, diagrams, and step-by-step procedures (the guidance system).

- Demonstrating behaviors to be learned

Whenever we want our students to learn to do things - rather than just acquire factual knowledge - it helps to provide them with demonstrations of what's to be learned:

By modeling the desired performance.

INSTRUCTIONAL ACTIVITIES

By showing samples of the products of desired performance.

Note the examples in the table.

Point out how in your workshop this has been done by providing samples of various products they are learning to develop: lists of responsibilities, analysis of skill, knowledge and attitude components, etc.

- Allowing students to practice behaviors and
- Providing feedback on student progress

The findings of educational and psychological research - and plain old common sense - tell us that learning is most effective when the students can practice what they are learning and get feedback on their progress toward and achievement of the terminal competencies.

Note the examples in the table.

Point out the opportunities provided in your workshop for practice and the frequent feedback for progress.

2. Group Exercise (1 1/2 hrs): Designing Instructional Activities:

NOTE: This is continuation of the carry-through group/team exercise for the workshop.

- a. Remind them of the responsibility with which they've been working.
- b. Display the list of entry, intermediate, and terminal competencies for that responsibility - from Sessions #7 and 8.

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- c. Ask participants - as review of Session #9, Planning for Evaluation, to decide on the evaluations needed for these student competencies.
 - d. Have participants design instructional activities for these competencies:
 - First, sequence from entry through to terminal.
 - Then design specific instructional activities as a group.
3. Assignment (3 1/2 hrs):
- a. Distribute Assignment Handout #9.
 - b. Review the assignment handout
 - Read the Directions, Criteria and examples. Ask for comments/questions.
 - Ask participants to do the assignment. Time allocated: about 3 hrs.
 - Tell how evaluation and feedback will be given.
4. Give evaluation and feedback (1 1/2 hrs)
- a. Enter below the way in which evaluation and feedback will be given.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

b. Refer to syllabus for next session.

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN #10

1. In preparing for this session, did you read the Leader's Guide?

YES ____ NO ____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	a) Did you <u>follow</u> directives?			b) Were directives <u>useful</u> ?		
	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	___	___	___	___	___	___
Instructional Activities:	___	___	___	___	___	___
Lectures/ Discussions:	___	___	___	___	___	___
Exercises:	___	___	___	___	___	___
Evaluation/ Feedback:	___	___	___	___	___	___

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES ____ NO ____

a) If yes, were directives clear? YES ____ NO ____

b) Were criteria clear? YES ____ NO ____

c) Did examples help? YES ____ NO ____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #11: CONSTRUCTING A SYLLABUS & SESSION PLANS

(Half day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: • review of Session #10. • overview of upcoming tasks.	30 min
2. Group exercise: Formulating Session Plans.	30 min
3. Project Assignment #10: Constructing a Syllabus & Session Plans.	2 1/4 hrs
4. Give evaluation and feedback.	1 hour

REFERENCES/RESOURCES

- () Textbook pages A-72 through A-75.
- () Overhead Transparency #1.
- () Project Assignment #10 (one for each participant).

SESSION PLAN #11: CONSTRUCTING A SYLLABUS AND SESSION PLANS

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (30 min):

- a. Congratulate participants. At this point, they have essentially completed the design for their instructional unit. They've designed the terminal and intermediate competencies for their students and the instructional activities through which they will try to help develop these competencies.
- b. Display OVERHEAD TRANSPARENCY #1, THE SYSTEMATIC COURSE DESIGN MODEL.
- c. Review briefly the steps participants have gone through to reach the point where they are now ready to construct a syllabus. Point to the steps as you review them.
- d. The job is not complete, however. Before participants can actually give the instruction they have designed, it will be necessary to deal with the following:

Constructing a syllabus for the instructional unit they have just completed designing - and, of course, doing that for the other instructional units making up the course.

The formal syllabus serves two important purposes:

It provides the students with a "map" of the course and the instructional units in it, including the points in the course units where progress checks and posttests will occur.

It provides the instructor with a "map" for preparing what needs to be given in the course, such as:

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- lecture outlines (key points to cover).
 - materials, such as handouts, overhead transparencies.
 - posttests and progress checks.
 - session plans to guide the administration of the instructional units.
- e. Note that participants will also construct a session plan for one of the sessions in the syllabus. There is a handout to help them do this.
- f. For purposes of this workshop, the syllabus and session plan are the final products on which participants will be evaluated and receive feedback.
2. Group exercise (30 min): Formulating Session Plans.
- a. Ask participants what experience they've had developing and using session plans.
 - b. Discuss potential problems involved in trying to use a session plan developed by someone else.
 - c. Ask participants what they believe to be essential and useful components of a session plan.
 - d. Distribute Assignment Handout #10, Constructing a Syllabus and Session Plans, and ask participants to turn to the assignment supplement called "Session Plan Specifications".

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN # 11

1. In preparing for this session, did you read the Leader's Guide?

YES _____ NO _____

2. If yes,

a) Did you follow directives?

b) Were directives useful.

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>		<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	_____	_____	_____		_____	_____	_____
Instructional Activities:	_____	_____	_____		_____	_____	_____
Lectures/ Discussions:	_____	_____	_____		_____	_____	_____
Exercises:	_____	_____	_____		_____	_____	_____
Evaluation/ Feedback:	_____	_____	_____		_____	_____	_____

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES _____ NO _____

a) If yes, were directives clear? YES _____ NO _____

b) Were criteria clear? YES _____ NO _____

c) Did examples help? YES _____ NO _____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN # 12: CONSTRUCTING TEST ITEMS

(Full day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: <ul style="list-style-type: none">● review of Session #11.● overview of upcoming tasks.	45 min
2. Individual Exercise #4: Classifying Test Items.	1 hr
3. Group Exercise: Analyzing an Error Matrix.	1 hr
4. Project Assignment #11: Constructing Test Items.	2 hrs
5. Evaluation and feedback.	1 hr

REFERENCES/RESOURCES

- () Textbook pages B-100 through B-111;
C-30 through C-58.
- () Exercise #4 (one for each participant.)
- () Project Assignment #11 (one for each participant.)

SESSION PLAN #12: CONSTRUCTING TEST ITEMS

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (45 min)

- a. State that in the preceding sessions participants completed their individual project in systematic course design - the syllabus and one session plan for an instructional unit.
- b. State that to implement their design, they may have various things to do:
 - Arrange for or prepare any audiovisual materials to be used.
 - Prepare the student handouts, if any.
 - Prepare whatever session plans are needed.
 - Develop their evaluation instruments or tests, as called for in their design of the instructional activities.
- c. Because evaluation is so important a part of effective instruction, this session will deal with test items for examinations or tests, progress tests, posttests, etc.
- d. State that participants will practice writing test items for their courses.
- e. State that progress tests and posttests can usually be classified as one of the following:

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- Oral - such as role-plays.
- Practical - such as demonstrating a procedure.
- Written - such as testing for knowledge components.

Ask for examples of each.

- f. Ask participants how we decide which form of test is appropriate for a given entry, intermediate, or terminal student competency? Answer:

Form of test must match the conditions of performance described for a given competency.

- g. Ask for and/or give examples of how oral, practical, and written tests would be appropriate for given student competencies? Examples:

- Oral - such as a role-play for testing interviewing in connection with conducting a medical history interview.
- Practical - such as performing the skills involved in a physical exam or medical procedure such as injections.
- Written - such as testing for knowledge underlying a particular skill, e.g., interpreting data from lab tests.

- h. Ask how we might evaluate performance on an oral or practical test?

Possible answers:

- State the criteria clearly.

INSTRUCTIONAL ACTIVITIES

- Have a checklist of the criteria to facilitate objective evaluations.
- Give the criteria checklist to the students ahead of time, so they can prepare well for the oral or practical test.

i. State that where their instructional activities - their progress tests or posttests - call for oral or practical forms of testing, participants should develop a list of criteria when they construct test items in this session's assignment.

j. State that when it comes to written test items, it can be helpful to think of them at three levels:

- Recall - of knowledge and factual information.
- Interpretation.
- Problem-solving.

Write these on the chalkboard/flip-chart.

k. State that participants can now do an individual exercise to clarify the meaning of these terms.

2. Individual Exercise (1 hr): Classifying Test Items.

- a. Distribute Exercise #4.
- b. Read the directions on the first page and ask for comments/questions.
- c. Ask participants to do the exercise. They don't have to know the answers to the test items in order to classify them as recall, interpretation, or problem-solving.

LEADER'S NOTES

INSTRUCTIONAL ACTIVITIESLEADER'S NOTES

- d. The exercise will take about 30 min.
 - e. After all have finished the exercise, go over their responses with them. Point out that whether an item is classified as recall or higher can depend on the individual's past experience. For example, someone with a lot of experience in a maternity ward might respond to the last set of questions on the basis of recall rather than interpretation.
3. Group exercise (1 hr): Analyzing an Error Matrix.
- a. Have participants turn to page B-108 in the textbook.
 - b. Read through the introduction on the top of the page with the participants, and work through Question #1 with them before moving on to the error matrices.
 - c. You may wish to divide the participants into smaller groups to work through Questions 1-6 on pages B-110, 111.
 - d. In large group, ask participants what the applications of such an exercise might be in their own teaching situations.
4. Assignment (2 hrs)
- a. Distribute Assignment Handout #11.
 - b. Review the assignment.
 - Read the assignment handout and ask for comments/questions.
 - Ask participants to do the assignment.

INSTRUCTIONAL ACTIVITIES

- Time allocated about 1 hr 45 min.
- Tell how evaluation and feedback will be given.

5. Give evaluation and feedback (1 hr).

- a. Enter below how evaluation and feedback will be given.

- b. Refer to syllabus for next session.

LEADER'S NOTES

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN #12

1. In preparing for this session, did you read the Leader's Guide?

YES ____ NO ____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>		<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	___	___	___		___	___	___
Instructional Activities:	___	___	___		___	___	___
Lectures/ Discussions:	___	___	___		___	___	___
Exercises:	___	___	___		___	___	___
Evaluation/ Feedback:	___	___	___		___	___	___

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES ____ NO ____

a) If yes, were directives clear? YES ____ NO ____

b) Were criteria clear? YES ____ NO ____

c) Did examples help? YES ____ NO ____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ____ NO ____

b) Were they helpful? YES ____ NO ____

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ____ NO ____

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SESSION PLAN #13: PRESENTING INDIVIDUAL PROJECTS & EVALUATING
THE WORKSHOP

(Half or full day)

<u>INSTRUCTIONAL ACTIVITIES</u>	<u>TIME</u>
1. Mini-lecture/discussion: objectives of Session #13.	10 min
2. Presentation of Participants' Projects.	<u>each</u> 30 min
3. Participant Evaluation of workshop.	1 hour

SESSION PLAN #13: PRESENTING INDIVIDUAL PROJECTS & EVALUATING THE WORKSHOP

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

1. Mini-lecture/discussion (10 min).

a. Overview the objectives of this session:

- to allow participants to present and to obtain feedback on their individual projects.
- to allow participants to provide feedback on the Systematic Course Design Workshop.

b. Review the procedures to follow in the presentation of projects.

(Note: you will have to decide ahead of time, based on time constraints and numbers of participants, exactly how the presentations should be done, e.g., all in large group, in smaller groups, etc.)

Participants should plan roughly 20 minutes of lecture and 10 minutes for questions and discussion.

c. Ask for questions and comments before presentations begin.

2. Presentation of Participants' Projects (30 minutes times number of presentation periods).

- a. Each participant should spend about 20 minutes overviewing the nature of his/her course, following the project assignments from the Instructional Situation through the Syllabus.

INSTRUCTIONAL ACTIVITIES

LEADER'S NOTES

- b. There should be about 10 minutes for the group to respond and to ask questions. (Or, the presenter may wish to entertain questions during the lecture.)
3. Participant evaluation of workshop
(1 hour)
- a. Invite participants to give open and honest evaluation of the workshop experience. One method for doing so is outlined below:
 - Ask participants to evaluate the workshop in the absence of the instructor(s). Have them select a moderator and a reporter. As positive and negative points are raised, have them written on the board/flipchart.
 - Instructor(s) is invited back into the classroom. The evaluation is summarized by the moderator. Instructor(s) should discuss and comment on the suggestions of the participants.
 - b. Thank participants for their cooperation and evaluation. Take care of final "housekeeping details" such as:
 - follow up plans, if any.
 - name and address sheet if participants wish to keep in touch with each other.
 - travel plans for getting home.
 - etc.

INSTRUCTOR EVALUATION OF LEADER'S GUIDE

SESSION PLAN # 13

1. In preparing for this session, did you read the Leader's Guide?

YES ____ NO ____

2. If yes,

a) Did you follow directives?

b) Were directives useful?

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>		<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
References & Resources:	___	___	___		___	___	___
Instructional Activities:	___	___	___		___	___	___
Lectures/ Discussions:	___	___	___		___	___	___
Exercises:	___	___	___		___	___	___
Evaluation/ Feedback:	___	___	___		___	___	___

c) If directives were not useful, please explain and suggest alternatives:

3. Did you ask participants to read the Project Assignment directions, criteria and examples?

YES ____ NO ____

a) If yes, were directives clear? YES ____ NO ____

b) Were criteria clear? YES ____ NO ____

c) Did examples help? YES ____ NO ____

d) If assignment was not clear or participants had difficulty following directions, please explain:

4. If overhead transparencies were indicated in this session plan,

a) Did you use them? YES ___ NO ___

b) Were they helpful? YES ___ NO ___

Comments: _____

5. Was timing appropriate as listed in the session plan? YES ___ NO ___

If no, please indicate what changes are needed and how much time the activities actually took:

6. Overall assessment of session plan and suggestions for revision:

SECTION III: WORKSHOP RESOURCES

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PROJECT ASSIGNMENT #1: DESCRIBING THE INSTRUCTIONAL SITUATION

DIRECTIONS:

1. Write a description of the instructional situation with which you will be working during this workshop.
2. The description should include at least those items stated in the criteria below.
3. You will be asked to share your description with other participants.

CRITERIA:

Your description should include at least the following items, excepting as a given item is not applicable to your situation. Evaluation of your description will be based on the extent to which you covered the items.

- () Title: official or temporary name for the course.
- () Purpose: major intent of the course.
- () Students: major category(s) of individuals who will take the course (e.g., 3rd year medical students, community volunteers etc.).
- () Setting: institution or location where the course will be taught.
- () Resources: funds, personnel, labs, audiovisual aids etc. available to develop and teach the course.
- () Constraints: limiting factors such as time schedules, numbers of students, traditions that must be maintained etc.

EXAMPLE: (see attached sheet)

EXAMPLE DESCRIPTION OF THE INSTRUCTIONAL SITUATION

INSTRUCTIONAL SITUATION

- Title:** Pediatric Paramedical Care
- Purpose:** To enable participants to care for the needs of pediatric patients presenting with the most common complaints encountered in an outpatient setting, either
- (a) by providing treatment themselves, or
 - (b) by referring the case to a physician and arranging ancillary data collection if appropriate.
- Students:** Registered nurses with at least two years of nursing experience, who have elected to become paramedics
- Setting:** Lashley University Medical Center in New York City
- Resources:** Sufficient funds are available to cover the costs of all necessary materials including reprints, slides, video-tapes, and so on. The instructor is available to spend full-time on this course. Other full-time instructors, pediatric residents and interns, a pediatric nutritionist, and a social worker could be made available for short periods of time, but not for major teaching responsibilities. Classrooms are fully equipped with audio-visual equipment, and out-patient examining rooms are available for labs at least one day a week. A well equipped lab where routine urine and hematology work could be performed is also accessible.
- Constraints:** Course begins in six months and must conform to dates established by the regular school semester at Lashley University. This schedule allows for two 2-hour class sessions and one 3-hour lab period each week for thirty weeks, or a total of 210 class hours for the year. For each class hour, students can be expected to spend between one and two hours outside of class working on assignments. Up to twenty students will take the course each year, and they must be prepared to pass certification requirements by the end of the year.

PROJECT ASSIGNMENT #2: DESCRIBING FUTURE PROFESSIONAL ROLE OR ROLES

DIRECTIONS:

1. Write a description to identify the future professional role or roles of your students in your instructional situation. (See Project Assignment #1.)
2. Make sure that each future role identified has both the position title and setting/situation stated clearly.
3. If your instructional situation serves students having a wide diversity of future professional roles, make a statement to this effect.

CRITERIA:

- [] Each role is identified by position title or the equivalent.
- [] Each role has the setting or situation identified.

EXAMPLE: (See page A-7 in Text.)

PROJECT ASSIGNMENT #3: LISTING PROFESSIONAL RESPONSIBILITIES

DIRECTIONS:

1. For the future professional role identified in the Assignment #2, list the professional responsibilities that are pertinent to the instructional situation you described in Assignment #1.
2. You might find it helpful to begin by thinking of categories and/or sequences within which the responsibilities may belong.
3. You may also find it helpful to read in your textbook pages B-14 through B-17.

CRITERIA:

- [] Each responsibility statement should contain a clear, explicit action verb identifying the nature of the performance involved in meeting the professional responsibility.
- [] The responsibilities stated should be pertinent to your instructional situation as described by you in Assignment #1.
- [] The responsibility statements should contain sufficient information so that a qualified colleague could understand them and respond to them by providing constructive feedback for revisions.

EXAMPLES: (See pages A-8 through A-10 of Text.)

PROJECT ASSIGNMENT #4: ANALYZING SKILL/KNOWLEDGE/ATTITUDE COMPONENTS

DIRECTIONS:

1. Select a particular professional responsibility from your list of responsibilities produced in assignment #3. In choosing a responsibility, keep in mind that it will be the one for which you will develop a syllabus during this workshop. Thus, it should be of sufficient scope to be challenging, yet delimited enough to be manageable. It may help to confer with one of the workshop staff in choosing the responsibility with which you will be working here and in later assignments.
2. Analyze the chosen responsibility into skill, knowledge, and attitude components:
 - First, identify the skills underlying the responsibility and note these.
 - Then, skill-by-skill, identify and note the key knowledge components.
 - Finally, identify and note any attitude components that apply to a given skill or generally across two or more of the skills.
3. In thinking through the skills underlying the responsibility, keep in mind that these are what you have to teach your students to meet that responsibility.
4. In thinking through the knowledge components of a given skill, focus on those key knowledge components that you'll have to teach to ensure that your students can develop that skill.
5. Your analysis of the skill, knowledge, and attitude components is to be written, preferably in the format shown on pages A-13 and A-15, and should meet, as feasible, the criteria stated below.

CRITERIA:

- [] Each skill statement contains an action verb that makes clear the behavior or performance involved.
- [] The skills identified cover the components or steps needed to meet the professional responsibility.

CRITERIA: (Cont'd)

- [] As appropriate, the skills include such aspects as observing, evaluating, interpreting, problem-solving, decision-making, and others that may be more covert ("mental") than overt.
- [] The knowledge components identify the technical terminology, underlying facts/concepts, criteria, etc. that your students must learn in order to perform the skill with which they are associated. (NOTE: In this respect, you will necessarily be making assumptions about their entry skills/knowledge prerequisites.)
- [] The attitude components are stated in such a way that it appears feasible to identify behavioral indicators of the presence or absence of the attitude during performance of the skill(s).
- [] The format shows the "alignment" of the skill, knowledge, and attitude components.
- [] As appropriate, sequential skills are stated in sequence.

EXAMPLES:

1. Definitions of skills, knowledge, and attitude components appear in your textbook, page A-11. A sample analysis of a responsibility into its skill, knowledge, and attitude components appears on page A-13; others on page B-40 and B-50, 51.
2. You may find it helpful to work through one or more of the following, depending on your situation:
 - Illustration 9, page B-30.
 - Illustrations 10/13; see page B-45.

PROJECT ASSIGNMENT #5: DESCRIBING CONDITIONS AND PERFORMANCE

DIRECTIONS:

1. For the analyzed responsibility with which you have been working, state the professional conditions and performance; that is the professional competency involved in meeting that responsibility.
2. Use the format: Conditions...Performance. (See page A-40.)

CRITERIA:

Description of Conditions for professional competency should show adequate attention to items stated on page A-37:

- other people
- resources and facilities
- problems, challenges, tasks
- physical location
- physical stress
- time constraints
- emotional stress

EXAMPLES:

Definitions of conditions and performance appear in your textbook, page A-37; and examples of statements of professional conditions and performance appear on pages A-38 and B-82.

PROJECT ASSIGNMENT #6: DESCRIBING TERMINAL AND ENTRY STUDENT COMPETENCIES

DIRECTIONS:

1. State, based on the professional conditions and performance from Assignment #5, the optimum (highest feasible) level of student competency you can reasonably expect in your instructional situation, given the resources available and time allocated. That is, state the terminal student competency in the same Conditions/Performance format used for stating the professional competency.

NOTE: You may find it helpful in doing (1) to keep these points in mind:

- a. You are, in effect, stating an end-of-course or terminal objective when you state a terminal student competency. Thus, it may help if you try to imagine the appropriate "final examination" to use, whether oral, practical, or written.
 - b. It often helps to start with the conditions side of the professional competency and to simplify it to the level which you can provide in your instructional situation and then to change the performance side only as necessary based on the changes made in conditions.
2. When you have stated the terminal student competency, you may want to get feedback from a colleague or instructor before moving on to the entry student competencies.
 3. Finally, state the entry student competencies. This may prove more difficult, especially if you're working with a generic prerequisite or generic professional responsibility for a basic course.
 4. When you have completed your Conditions/Performance statements of the terminal student and entry student competencies for the analyzed responsibility with which you are working, submit these for formal evaluation and feedback.

CRITERIA:

- [] Description of terminal student competency must be defensible with reference to:
 - [] explicit constraints in resources, time, etc.,
 - [] consideration of alternative levels of simulation (at least one other terminal student competency must have been described and considered),
 - [] rational for the modifications in professional conditions and/or performance.
- [] It must be evident that a qualified specialist could, based on the description of the terminal student performance, prepare a suitable final examination (oral, practical, written).
- [] A reasonable attempt must have been made to describe entry student competencies or a reasonable basis given for not doing so.

EXAMPLES: (See pages A-34, 35; A-39/43; B-93/99.)

**PROJECT ASSIGNMENT #7: DESCRIBING INTERMEDIATE STUDENT COMPETENCIES
OR CHECKPOINTS**

DIRECTIONS:

1. For the terminal and entry student competencies from the preceding assignment, describe the intermediate competencies or checkpoints that can form an instructional or learning path from entry to terminal competencies.
2. As you describe intermediate competencies, keep in mind that there may be two differing kinds:
 - lower-level simulations of the terminal student competency for the instructional unit (which you may already have described during the preceding assignment),
 - intermediate competencies or checkpoints based on the skill, knowledge, and attitude components of the analyzed responsibility which is the focus of your model project assignments.

CRITERIA:

- [] Each intermediate competency or checkpoint should make clear how it could be tested via a progress check or test. For example, a qualified specialist should be able to construct an appropriate oral, practical, or written exam.
- [] There should be at least one lower-level simulation of the entire terminal student competency, or a good reason why this is not feasible.
- [] You should be able to explain your decisions regarding the inclusion/omission of skill, knowledge, and attitude components of the analyzed responsibility from which the terminal student competency and intermediate competencies have been developed.

EXAMPLES: (See pages A-56/60 and B-117/129.)

PROJECT ASSIGNMENT #8: PLANNING FOR EVALUATION

DIRECTIONS:

1. Examine one-at-a-time the entry, intermediate, and terminal student competencies you have described in the immediately preceding sessions.
2. Decide on each competency that should be evaluated either in a progress test or the final examination - mark each competency to show that decision.
3. Write a brief description of the nature of the test to be used (e.g., oral, practical, written) and the content.

CRITERIA:

- [] Each test described in (3) above should be sufficiently clear so that a qualified colleague would have no trouble constructing a satisfactory version of the test, assuming he/she could consult with you about specifics of the content of the test.
- [] There must be a test for the terminal student competency, and the nature of that test (oral, practical, written) should match the conditions/performance which describe the terminal student competency.
- [] If no progress tests are used, justify that exclusion.
- [] If no pretest or prerequisite tests are included, justify those exclusions.

PROJECT ASSIGNMENT #9: DESIGNING INSTRUCTIONAL ACTIVITIES

DIRECTIONS:

1. Identify in writing for each student competency - intermediate and terminal - one or more instructional activities.
2. Include both teaching and evaluation activities.
3. Your instructional activities should meet, as feasible, the criteria stated in the Criteria section.
4. In developing the instructional activities for the terminal and intermediate competencies, you may find the following of help:
 - a. Review the table of instructional functions, A-64, A-65.
 - b. Examine the Guidance System, A-76.
 - c. Arrange the competencies into a preliminary instructional sequence.
 - First, intermediate competencies for isolated skill, knowledge, and attitude components
 - Next, intermediate competencies for the overall responsibility.
 - Finally, the terminal competency.
 - d. Keep in mind that this is a preliminary sequence intended mainly to facilitate your design of instructional activities. The important thing is that it provides what appears to be a smooth learning progression from the entry to the terminal competencies.
 - e. Since your next assignment will be to produce a formal syllabus from your work in this assignment, you may want to examine syllabus samples; see pages A-74,75; B-150, 151; D-24, 25.
5. When arranging the competencies into a sequence, it may help to examine carefully the relationship between statements of competencies and the instructional activities of one or more samples; e.g., between the competencies listing on page A-60 and the design for the associated instructional activities in pages A-68 through A-69. Note the identifying numbers on page

A-60 and their re-ordering in pages A-68 through A-69. This relationship can also be examined by comparing identifying numbers for competencies on page B-142 with the instructional activities numbering of competencies, pages B-145, B-146.

CRITERIA:

Choice of Instructional Activities must:

- simulate competencies being taught.
- include opportunities to learn the range of skills, knowledge and attitude included in the analyzed responsibility.
- make provisions for a variety of instructional functions including:
 - providing a frame of reference.
 - providing a reason to learn.
 - shaping student attitudes.
 - transmitting information.
 - demonstrating behavior to be learned.
 - allowing students to practice behaviors.
 - providing feedback on student progress.

EXAMPLES: (See pages A-68/70; B-143/146.)

PROJECT ASSIGNMENT #10: CONSTRUCTING A SYLLABUS AND SESSION PLANS

DIRECTIONS:

1. Write a formal syllabus for your instructional unit, based on your work from preceding assignments. (Assume that the syllabus would be distributed to your students at the beginning of the course or instructional unit.)
2. Follow a format similar to that found on pages A-74/75, or develop a format more suitable for your purposes.
3. Write a session plan for one of the sessions in your syllabus. (Refer to the attached description of session plans.)
4. As you develop your syllabus and session plan, ask for feedback from a colleague or workshop leader.

CRITERIA:

For Syllabus:

- () Should state course title, location, instructor, time period.
- () Should be broken down by individual sessions, numbered and/or dated.
- () Should contain brief description of the instructional activities for each session.
- () Should spell out assignments for future sessions.

For Session Plan:

- () Should have an equivalent cover sheet as described on the attached sheet.
- () Should make clear each instructional activity in the session.
- () Should be arranged for convenient, efficient use as an aid or guide to the leader when actually conducting the session (see "Body of Session Plan" on attached sheet).

EXAMPLES:

Of Syllabus: (see pages A-74/75; B-150/51).

Of Session Plan: (see Leader's Guide for this workshop).

SESSION PLAN SPECIFICATIONS

DEFINITION OF SESSION PLAN:

A session plan is a printed or written document which an instructor or workshop leader uses to conduct a given session according to plan. It is similar to a lecture outline.

COMPONENTS OF A SESSION PLAN:

The session plans used by the leaders of the Systematic Course Design workshop have the following parts:

- (1) COVER PAGE - used mainly in preparing for a session. It has the following information.
 - a. Session number and title.
 - b. List of the instructional activities and the estimated times.
 - c. Reference/Resources for the session, including:
 - Textbook page numbers.
 - Overhead transparencies, if any - number, title.
 - Printed exercises handouts, if any - title.
 - Assignment handouts - title.
 - Special resources needed, if any.

- (2) BODY OF THE SESSION PLAN - used during the actual session as an aid or guide for the leader to make sure the session is conducted according to plan. It has the following information.
 - a. INTRODUCTION:
 - Review of preceding session(s).
 - Preview of this session (and perhaps the next).
 - May include use of one or more overheads.
 - Definitions, examples of key concepts, terms.
 - Descriptions, demonstrations of procedures.

b. EXERCISES

- Individual exercises,
- Group exercises:
 - Carry-through exercise for the workshop (an exercise which follows up previous exercises dealing with the same problem)
 - Other group exercises.

c. ASSIGNMENT

Review of the assignment handout for the session

- | | |
|--------------|---------------------------------------|
| - Directions | - Time allocated |
| - Criteria | - Evaluation and feedback arrangement |

d. EVALUATION AND FEEDBACK

Statement of how work on the assignment will be evaluated and feedback given.

PROJECT ASSIGNMENT #11: CONSTRUCTING TEST ITEMS

DIRECTIONS:

Do (1) or (2):

1. Write a set of at least three test items, one each at the levels of recall, interpretation, and problem solving. The items must be based on the student competencies for your instructional unit - those described in your individual project.
2. As an alternative, you may prepare a checklist of criteria for an oral or practical test, if that is appropriate for your terminal student competency.

CRITERIA:

For 3 Test Items:

- At least one test item at each level.
- Items are based on student competencies from the individual project.

For Checklist of Criteria:

- A qualified specialist such as yourself should be able to apply the checklist criteria the same way you do (i.e., they must be stated in as objective a way as feasible).
- Criteria can be either "yes/no" (the student did or did not do a particular thing) or some form of rating (such as a scale of 1 to 5 = from excellent to not acceptable).
- Each criterion should define a specific aspect or component of the performance being evaluated.

EXAMPLES: (See Workshop Exercise #4, "Classifying Test Items" and textbook page C-19, "Example of a Checklist".)

EXERCISE #1: DESCRIBING FUTURE PROFESSIONAL ROLES

PART A

DIRECTIONS: Below are listed statements intended to describe the future professional roles of students. Evaluate each statement by checking the appropriate box. Our answers are given as feedback below the dashed line.

1. "Public health officer"
 - a. Does not give the position title (or equivalent)
 - b. Does not give the setting or situation
 - c. Okay

2. "Pediatrician in private practice"
 - a. Does not give the position title (or equivalent)
 - b. Does not give the setting or situation
 - c. Okay

3. "Para-medical nursing assistant in a rural public health clinic"
 - a. Does not give the position
 - b. Does not give the setting or situation
 - c. Okay

FEEDBACK: Correct answers are .

1. b
2. b ("private practice is too general a description of the setting or situation.
3. c

PART B

DIRECTIONS: Below are sets of statements about future professional roles. CHECK in each set the best statement, the one that makes clearest the position and its setting or situation.

1. a. Provides medical services in an operational Air Force flying unit
b. Flight medical officers in the Air Force
c. Flight medical officers in an operational Air Force flying unit
d. Flight medical officers

2. a. Pediatric nurses in well equipped American hospitals and clinics
b. Nurses in well equipped American hospitals and clinics
c. Provides nursing services in well equipped American hospitals and clinics
d. Pediatric nurses in hospitals and clinics

3. a. Physicians practicing medicine in Saudi Arabia
b. Physicians practicing medicine in rural areas of Saudi Arabia
c. Providing medical services in rural areas of Saudi Arabia
d. Physicians practicing preventive medicine in rural areas of Saudi Arabia

4. a. Community health workers in rural areas of California
b. Volunteer community health workers in California
c. Volunteer community health workers in rural areas of California
d. Providers of community health services in California

5. a. Dental technicians working in mobile dental services units for "inner-city" patients of large cities
b. Dental technicians working with "inner-city" patients
c. Dental technicians working in mobile dental services units
d. Providing dental services via mobile dental services units for "inner-city" patients in large cities

FEEDBACK: The correct answers are 1.c, 2.a, 3.d, 4.c, 5.a

EXERCISE #2: IDENTIFYING SKILL/KNOWLEDGE/ATTITUDE COMPONENTS

INTRODUCTION: Sometimes teachers have difficulty analyzing the components of a responsibility because they fail to distinguish accurately between skills, knowledge, and attitudes.

PART A

DIRECTIONS: Below is a scrambled list of components for the responsibility "Performs a white blood cell count". Decide whether each component is a skill, knowledge, or attitude and enter S, K or A in front of each.

**SCRAMBLED
LIST**

- ___ a. Be meticulous about accuracy.
- ___ b. Appropriate level to which to draw blood in pipette.
- ___ c. For accuracy, chamber must be full but not overflowing.
- ___ d. Fills counting chamber with specimen.
- ___ e. Draws blood into clean dry pipette to correct mark.
- ___ f. Appreciates the importance of accuracy for assisting in correct clinical interpretation of patient's problem.
- ___ g. Cleans pipette(s) and counting chamber(s).
- ___ h. Range of normal white blood cell count.
- ___ i. Interprets resulting count and repeats entire procedure if outside range of normal.
- ___ j. Counts white cells under microscope.
- ___ k. Correction formula and its rationale.
- ___ l. Characteristics both of white cells and of artifacts to avoid in count.
- ___ m. Corrects resulting count.
- ___ n. Mixes blood with diluent by rotating pipette.
- ___ o. Draws diluent into pipette to correct mark.
- ___ p. How long and vigorously to rotate pipette.
- ___ q. Appropriate level to which to draw diluent.

FEEDBACK

- | | | | |
|----|---|----|---|
| a. | A | j. | S |
| b. | K | k. | K |
| c. | K | l. | K |
| d. | S | n. | S |
| e. | S | m. | S |
| f. | A | o. | S |
| g. | S | p. | K |
| h. | K | q. | K |
| i. | S | | |

PART B

DIRECTIONS: Fill in the matrix below by arranging all of the components from the scrambled list in their proper sequence and relationship to each other. That is, indicate which skill components, and which attitude components are applicable for each. The order in which they are entered in the matrix should indicate proper sequence. Use letter abbreviations for components.

<p>Course Title: Laboratory Procedures</p> <p>ANALYZED RESPONSIBILITY</p> <p><u>Responsibility:</u> Performs a white blood cell count</p>		
Skills	Knowledge	Attitude

FEEDBACK

For PART B

<u>Course Title:</u> Laboratory Procedures		
ANALYZED RESPONSIBILITY		
<u>Responsibility:</u> Performs a white blood cell count.		
SKILLS	KNOWLEDGE	ATTITUDE
1. Draws blood into clean dry pipette to correct mark. (e)	(1) Appropriate level to which to draw blood in pipette. (b)	(For all steps in the procedure)
2. Draws diluent into pipette to correct mark. (o)	(2) Appropriate level to which to draw diluent. (q)	Be meticulous about accuracy. (a)
3. Mixes blood with diluent by rotating pipette. (n)	(3) How long and vigorously to rotate pipette (p)	Appreciate the importance of accuracy for assisting in correct clinical interpretation of patient's problem. (f)
4. Fills counting chamber with specimen. (d)	(4) For accuracy, chamber must be full but not overflowing. (c)	
5. Counts white cells under microscope. (j)	(5) Characteristics both of white cells and of artifacts to avoid. (l)	
6. Corrects resulting count. (m)	(6) Correction formula and its rationale. (k)	
7. Interprets resulting count and repeats entire procedure if outside range of normal. (i)	(7) Range of normal white blood cell count. (h)	
8. Cleans pipette(s) and counting chamber(s). (g)		

EXERCISE #3: LEVELS OF SIMULATION

INTRODUCTION: See Illustration 4-A (page B-30) for background on this course for day-care directors, and page B-40 for the relevant analyzed responsibility as developed by Dr. Kakande. NOTE: The various day care centers are located in villages many miles from the course location.

DIRECTIONS: Below is a list of several levels of simulation. Indicate by the number "1" the highest level of simulation, "2" the next highest, and so on. Which do you think is the highest level of simulation that would be feasible for Dr. Kakande to implement as a final evaluation for this course? Write "H" by the one you choose. Be sure to consider the instructional constraints: that is, a one-week government-sponsored course covering "all aspects of health care" which are relevant to a day-care director, and given at a modern city hospital with limited financial resources.

LEVELS OF SIMULATION:

- a. _____ When given black-and-white photographs and written case information, students will identify probable cases of PCM for referral to the local health officer.
- b. _____ When given a site visit to a local (urban) day-care center, students will identify children with probable cases of PCM.
- c. _____ When given a list of clinical signs, some associated with PCM and others not, students will identify those signs which could indicate PCM.
- d. _____ Students will describe the process they would use to identify a probable case of PCM for referral to the local health officer.
- e. _____ When given a site visit to a local (urban) day-care center, students will identify children with probable cases of PCM. Each student will then clinically examine two children, and report findings.
- f. _____ Given color films or videotapes showing different children and their parents, some with PCM and some without, students will identify those children with probable cases of PCM for referral to the local health officer.
- g. _____ When given written cases (describing appearance of a child, arm circumference, and answers of parent to questions regarding the child's eating habits), students will identify probable cases of PCM for referral to the local health officer.
- h. _____ When given a site visit to the emergency room of the city hospital, students will identify patients with probable cases of PCM.
- i. _____ When given color slides of children with written diet and arm-circumference information on each case, students will identify those with probable cases of PCM for referral to the local health officer.
- j. _____ When given a site visit to the emergency room of the city hospital, students will identify patients with probable cases of PCM. Each student will then clinically examine one patient, and report findings.

FEEDBACK: The level of simulation, from highest to lowest, is:

- e. 1
- j. 2
- b. 3
- h. 4
- f. 5
- i. 6
- a. 7
- g. 8
- d. 9
- c. 10

Dr. Kakande selected Level 4 as the highest level feasible within her course constraints. If more time were available, Levels 1 or 2 might be possible. However, even with the additional time, there is no guarantee that a local day-care center or the emergency room of a city hospital would have representative cases of protein-calorie malnutrition on the day the site visit is arranged. Besides, the implementation of these simulation activities would be very difficult with a class as large as 20 students.

Level 3 (filmed or videotaped interviews) would be ideal in many respects; but even if the equipment were available, Dr. Kakande did not think she had the resources or expertise to locate sufficient numbers of malnourished and normal children and their parents, film appropriate interviews, edit the films and produce a final product in time for this course. Slides, on the other hand, can be borrowed or easily produced, and color slides are not significantly more expensive than black-and-white prints. Certainly color slides would be better than prints when it comes to showing clinical signs such as changes in hair color from black to reddish-brown.

EXERCISE #4: CLASSIFYING TEST ITEMS

The purpose of this exercise is to recognize
different levels of multiple choice questions.

DIRECTIONS: There are various medical test items on the following pages. They represent three different levels of multiple choice test questions or items: recall of factual information; interpretation of data presented in various forms; and problem solving, in which conclusions must be drawn on the basis of recall and interpretation. Read through the questions and then label each question or set of questions either

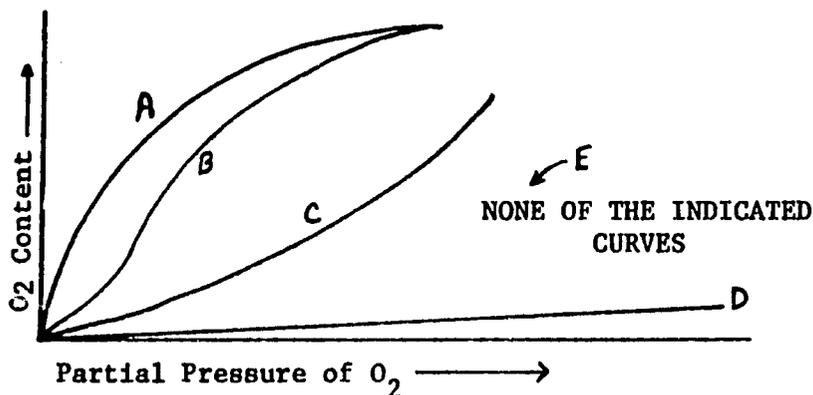
- A Recall
- B Interpretation
- C Problem Solving

by circling below.

Questions 1. - 4.	A	B	C
Question 5.	A	B	C
Questions 6. - 10.	A	B	C
Question 11.	A	B	C
Questions 12. - 15.	A	B	C

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is BEST in each case.

Questions 1 - 4



Each of the lettered curves shown above may depict a relationship of the total content of oxygen in solution to the partial pressure of oxygen.

1. Shape of the curve that represents the relationship of oxygen contained in physical solution in plasma to the partial pressure of oxygen.
2. Shape of the curve that would be observed for the reversible binding of oxygen to normal human myoglobin.
3. Shape of the curve that would be observed for the reversible binding of oxygen to normal human hemoglobin.
4. Shape of the curve that would be observed for the binding of oxygen to an abnormal human hemoglobin that lacks heme-heme interaction.
5. Which of the following veins is a part of a portal system?
 - (A) Right ovarian
 - (B) Left ovarian
 - (C) Middle rectal
 - (D) Superior rectal
 - (E) Uterine

Questions 6 - 10

An overdose of a new drug produced progressive effects referable to the central nervous system including vertigo, ataxia, somnolence, hypnosis and respiratory depression. These began within 15 minutes after oral administration of the drug. No metabolic breakdown products were found in the urine; however, a high concentration of the agent was found in the bile.

The following information was obtained from the manufacturer: The drug is an organic acid with a pK. of 6.4 and high lipid solubility; the drug is excreted by humans in such a way that one half of the administered drug is eliminated in the urine within three days.

6. The symptoms and physicochemical data indicate that the drug probably
 - (A) passes readily through cell membranes, including the blood-brain barrier.
 - (B) passes readily through cell membranes but does not pass the blood-brain barrier.
 - (C) penetrates readily from the circulation into the brain but not into other organs.
 - (D) can diffuse only into the glomerular filtrate.
 - (E) cannot escape from the circulation.

7. The information that the drug is highly concentrated in bile suggests
 - (A) that the drug is probably efficiently excreted in the feces.
 - (B) that the drug is probably structurally similar to a bile acid.
 - (C) that the drug forms complexes with bile acids.
 - (D) that the drug is effectively absorbed from the large intestine.
 - (E) none of the above conclusions.

8. The fact that it takes three days for half of the drug to appear in the urine is best explained on the basis that the drug
 - (A) is bound to plasma protein.
 - (B) undergoes little or no metabolism and is passively reabsorbed from the renal tubules.
 - (C) is deposited in bone.
 - (D) is actively secreted by the renal tubules.
 - (E) does none of the above.

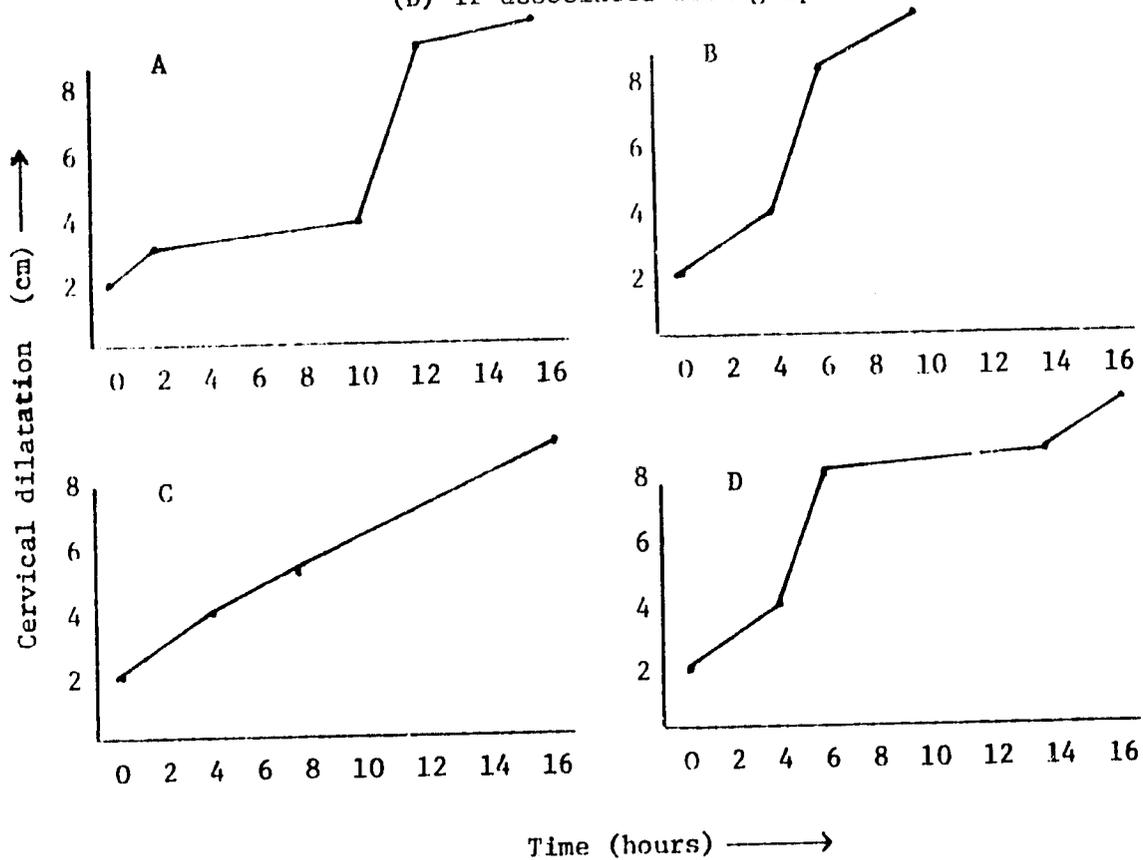
9. Acidification of the urine by administration of ammonium sulfate would
- (A) increase the relative concentration of the ionized form of the drug in tubular fluid, which is likely to increase urinary excretion.
 - (B) increase the relative concentration of the ionized form of the drug, which is likely to decrease urinary excretion.
 - (C) decrease the relative concentration of the ionized form of the drug, which is likely to increase urinary excretion.
 - (D) decrease the relative concentration of the ionized form of the drug, which is likely to decrease urinary excretion.
 - (E) increase secretion of the drug by the renal tubules.
10. The ratio of the unionized to the ionized form of the drug in plasma at pH 7.4 is
- (A) 1:10
 - (B) 1:1
 - (C) 10:1
 - (D) 100:0
 - (E) 1000:1
11. Sinusoids interposed between two sets of veins are found in the
- (A) small intestine.
 - (B) spleen.
 - (C) anterior pituitary gland.
 - (D) placenta.
 - (E) parathyroid glands

DIRECTIONS: Each group of questions below consists of lettered headings or a diagram or picture with lettered components, followed by a list of numbered works, phrases or statements. For each numbered work, phrase or statement, select the one lettered heading or lettered component most closely associated with it. Each lettered heading or lettered component may be selected once, more than once, or not at all.

Questions 12 - 15

The graphs below represent the patterns of labor in four different multiparous patients. For each statement that follows, select the pattern of labor most consistent with it, and mark the answer sheet in accordance with the following:

- (A) if associated with graph A
- (B) if associated with graph B
- (C) if associated with graph C
- (D) if associated with graph D



- 12. Secondary arrest _____
- 13. Normal labor _____
- 14. Prolonged latent phase _____
- 15. Desultory labor _____