

APPLICATION FOR NEW COURSE

ORIGINAL

Submitted by College of Lexington Community College Date 10/13/03

Department/Division offering course
Nuclear Medicine Technology Program / Natural Sciences & Health Technologies
Division

2. Proposed designation and Bulletin description of this course:

- (a) NMT 299 (b) Selected Topic in NMT: Topic
Prefix and Number Title*
- (c) 1 (d) NA
Lecture/Discussion hours per week Laboratory hours per week
- (e) NA (f) 1
Studio hours per week Credits
- (g) Course description

Content is designed for medical imaging technologists currently working, but not certified, in nuclear medicine technology who are attempting to meet alternate eligibility requirements for certification by the Nuclear Medicine Technology Certification Board (NMTCB). Topic will be chosen by the instructor and the student in instrumentation, radiopharmacy, or radiation safety in order to document requirements to apply for the examination. May be repeated with different topic subtitles for a maximum of three (3) credits. The radiopharmacy topic may include applied work with the radiopharmacist through the clinical affiliation of the NMT program. There is no clinical or laboratory component for instrumentation or radiation safety. This course is not open to students enrolled in the NMT program. NMT graduates may enroll as a registry review.

- (h) Prerequisites (if any):
Consent of instructor or NMTCB eligibility.
- (i) May be repeated to a maximum of 3 credits. (if applicable)

3. To be cross-listed as: NA
Prefix and Number Signature, Chair, cross-listing department

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- Note: If the title is longer than 24 characters (including spaces), write a sensible title (not exceeding 24 characters) for use on transcripts:

4. Effective Date: Fall 2004 (semester and year)
5. Course to be offered (a) Yes (b) Yes (c) No
Fall Spring Summer

6. Will the course be offered each year? No, less frequently Yes
(Explain if not annually):

This course is not intended to replace the 2-year AAS program nor the individual courses in nuclear medicine technology. The intention is to have this course available for uncertified technologists as the need arises in order for them to qualify by an alternative eligibility for the NMTCB. Need is not anticipated to be annual, and it may eventually be phased out depending on future eligibility categories available through the NMTCB or future certification requirements in Kentucky.

7. Why is this course needed:

While the demand for this course will not be large, it will fulfill a community need for those working technologists who are currently uncertified and who wish to pursue alternate eligibility for nuclear medicine certification. At present there is no Kentucky or federal requirement for nuclear medicine technologist certification. However changes in both state and federal requirements for medical imaging are anticipated in the future. Federal requirements will mandate states to have certification requirements. States will be required to set standards and monitor technologist certification. Kentucky is in the process of proposing a certification program for nuclear medicine technologists. In the face of a documented national shortage of technologists, Kentucky's NMT certification program will support the alternate eligibility of the Nuclear Medicine Technology Certification Board (NMTCB). This course will address requirements for alternate eligibility by the NMTCB.

8. (a) By whom will the course be taught? NMT faculty
- (b) Are facilities for teaching the course now available? No Yes

If not, what plans have been made for providing them?

9. What enrollment may be reasonably anticipated? less than 10
10. Will this course serve students in the Department primarily? No Yes

Will it be of service to a significant number of students outside the Department?
 No Yes If so, explain

Individuals who enroll in this course will not currently be degree-seeking students at LCC. It is expected that these individuals will already be working in a nuclear

medicine department although uncertified. This course will be a service to those who want to qualify for the NMTCB through the current alternate eligibility category.

Will the course serve as a University Studies Program course? No Yes

If yes, under what Area?

11. Check the category most applicable to this course:
- traditional; offered in corresponding departments elsewhere;
 - relatively new, now being widely established
 - not yet to be found in many (or any) other universities
12. Is this course part of a proposed new program? No Yes If yes, which?
13. Will adding this course change the degree requirements in one or more programs?*
- No Yes If yes, explain the change(s).
14. Attach a list of the major teaching objectives of the proposed course and outline and/or reference list to be used.

Radiation Safety:

The student will be able to:

1. define units of radiation exposure related to dosimetry;
2. summarize the regulation of radioactive materials;
3. describe the use of radiation detectors and personnel monitoring;
4. describe the three most common methods of radiation protection;
5. perform calculations using concepts of time, distance and shielding;
6. summarize radiation safety procedures for personnel and patients;
7. describe radioactive waste disposal procedures; and
8. describe contamination surveys and decontamination procedures.

Instrumentation:

The student will be able to:

1. identify the common non-imaging and imaging nuclear medicine instrumentation;
2. describe the function of each non-imaging and imaging instrument;
3. explain the appropriate quality control procedures for each instrument;

Note: Approval of this course will constitute approval of the program change unless other program modifications are proposed.

4. perform appropriate calculations or analysis of quality control data, and
5. describe computer function in relation to image enhancement or reconstruction.

Radiopharmacy:

The student will be able to:

1. define characteristics of selected routine radiopharmaceuticals;
2. describe radiation protection and regulatory issues related to radiopharmaceuticals;
3. describe possible adverse patient reactions to routine radiopharmaceuticals;
4. explain, observe, and demonstrate preparation of selected, routine radiopharmaceuticals if a radiopharmacy assignment is arranged;
5. explain and demonstrate routine quality control procedures for generator eluate and selected radiopharmaceuticals if a radiopharmacy assignment is arranged;
6. calculate the volume of patient dosages given routine amounts of activity; and
7. identify the use and application of interventional pharmaceuticals used for imaging.

Resources:

Nuclear Medicine: Technology and Techniques, 4th ed. Bernier, Donald R, Paul E. Christian, James K. Langan, eds. Mosby, 1997.

Fundamentals of Nuclear Pharmacy, 4th ed. Saha, Gopal B. Springer-Verlag, 1998

Curriculum Guide for Educational Programs in Nuclear Medicine Technology, 3rd ed. Murphy, Kathleen, Kristen Waterstram-Rich, and Patricia Wells, eds. Society of Nuclear Medicine, 2003.

15. If the course is a 100-200 level course, please submit evidence (e.g., correspondence) that the Community College System has been consulted.

This proposal has been forwarded for review both to Dr Carolyn O'Daniel at the Community College System and to Aloris Owens, NMT Program Coordinator, at Jefferson Community College.

16. Within the Department, who should be contacted for further information about the proposed course?
Name Charles H Coulston Phone Extension: 257-4872 x 4099

Signatures of Approval:

Department Chair: Gregory A. Zell Date: 10-17-03
Dean of the College: [Signature] Date: 11/2/03

Date of Notice to the Faculty: _____

*Undergraduate Council: _____

*University Studies: _____

*Academic Council for the Med. Ctr: _____ Date: _____

*Senate Council: _____ Date: _____

ACTION OTHER THAN APPROVAL: _____

APPLICATION FOR NEW COURSE
Additional Information on CCS Forms

1 List of Experiments/Activities: (If laboratory or clinic is involved)

For the radiopharmacy topic, the student may request practice at a radiopharmacy-clinical affiliate of the program. Activities to observe/demonstrate will be to:

1. elute the molybdenum-technetium generator,
2. perform the molybdenum breakthrough test procedure,
3. perform the alumina test procedure,
4. prepare selected radiopharmaceuticals,
5. perform the quality control procedures of selected radiopharmaceuticals,
6. demonstrate compliance with Department of Transportation regulations, and
7. practice radiation safety in the pharmacy

2. For Inclusion on LCC General Education List:

A. Degree Area (AA/AS or AAS or both)

NA

B. Competency Area

NA

C. General Education Competency Statement (List and provide examples of implementation methods/activities)

NA

D. Across the Curriculum Competencies (List and provide examples of implementation methods/activities)

NA

3. For Inclusion on University Studies List: (A syllabus must be attached.)

A. Area

NA

B. Description of Writing Component

NA

If the new course is to be offered through distance education, the *Application for Offering a Course Using a Distance Education Format* form must also be submitted with this form.