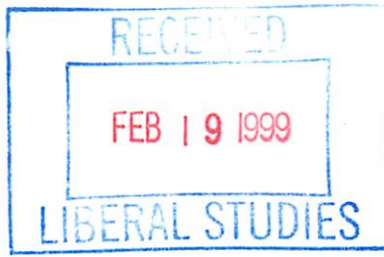


LSC Use Only
Number: _____
Submission Date: _____
Action-Date: _____



99-260
98-48
UWUCC USE Only
Number: _____
Submission Date: _____
Action-Date: UWUCC App 4/27/99
Senate App 10/5/99

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Rebecca L. Hartman, EdD, Coordinator Phone 357-3257
Department Nursing and Allied Health Professions

II. PROPOSAL TYPE (Check All Appropriate Lines)

_____ **COURSE** _____
Suggested 20 character title
_____ New Course * _____
Course Number and Full Title
_____ Course Revision _____
Course Number and Full Title
_____ Liberal Studies Approval + _____
for new or existing course Course Number and Full Title
_____ Course Deletion _____
Course Number and Full Title
_____ Number and/or Title Change _____
Old Number and/or Full Old Title
_____ _____
New Number and/or Full New Title
_____ Course or Catalog Description Change _____
Course Number and Full Title

PROGRAM: Major _____ Minor _____ Track
_____ New Program * _____
Program Name
 Program Revision * Nuclear Medicine Technology
Program Name
_____ Program Deletion * _____
Program Name
_____ Title Change _____
Old Program Name
_____ _____
New Program Name

III. Approvals (signatures and date)

Rebecca L. Hartman Department Curriculum Committee
Mary E. Sweeney 2/10/99 College Curriculum Committee
Paul Kozner 11-13-98 Department Chair
Robert Boule 17 Feb 99 College Dean
W. King 2/22/99
+ Director of Liberal Studies (where applicable) *Provost (where applicable)

CHANGE IN PROGRAM PROPOSAL

Part II Description of Curriculum Change

1. Catalog description of program (minor editing to enhance clarity)

Nuclear Medicine is the medical specialty that utilizes the nuclear properties of radioactive and stable nuclides to make diagnostic evaluations of the anatomic or physiologic conditions of the body and to provide therapy with unsealed radioactive sources. A nuclear medicine technologist's skills complement those of the nuclear medicine physician and other allied health professionals.

The nuclear medicine technologist is a highly trained individual who has completed an approved course of study in the theory of nuclear medicine technology. This allied health profession utilizes radioactive materials for the diagnosis of various pathological disease states and for the treatment of some specific disorders. The American College of Radiology, American Medical Association, American College of Medical Technology, American Society of Technologists, Society of Nuclear Medicine, and the Society of Medicine-Technologist Section cooperate to establish, maintain, and promote appropriate standards of quality for educational programs in nuclear medicine technology.

The program leading to a Bachelor of Science degree in Nuclear Medicine Technology consists of three years of study at IUP and one year at the University of Findlay/Nuclear Medicine Institute in Findlay, Ohio. Incoming students must achieve a GPA of 2.25 in the Natural Sciences and Mathematics to be considered for admission to the Nuclear Medicine Institute. Since admission to the Nuclear Medicine Institute is competitive, IUP cannot guarantee admission into their program.

Proposed Nuclear Medicine Technology Program

Bachelor of Science--Nuclear Medicine Technology

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

54-55

Mathematics: MA217

Natural Science: CH101-102

Social Science: PC101, SO151

Liberal Studies Electives: CO/BE/IM101 plus three Liberal Studies electives or two Liberal Studies electives and one Synthesis course

Major:

Required Courses:(1)

NT427	Nuclear Scintigraphy	3sh	32
NT428	Radiation Physics	3sh	
NT429	Nuclear Medicine Instrumentation	3sh	
NT430	Radiation Biology and Radiation Protection	2sh	
NT431	In Vivo/In Vitro Non-Imaging	1sh	
NT432	Radiopharmaceuticals	3sh	
NT433	Introduction to Tomographic Imaging	1sh	
NT434	Clinical Nuclear Medicine	16sh	

Other Requirements:

21

Science Courses:

BI105	Cell Biology	3sh
BI150	Human Anatomy	3sh
BI151	Human Physiology	4sh
PY111	Physics I Lecture	3sh
PY121	Physics I Lab	1sh

PY112	Physics II Lecture	3sh
PY122	Physics II Lab	1sh
Other courses: (2)		
EN310	Public Speaking	3sh

Free Electives:

17

At least two of the selected courses must be Writing Intensive

Total Degree Requirements

124-125

(1) These courses are offered at the University of Findlay/Nuclear Medicine Institute, Findlay, Ohio. These areas of study are consistent with requirements of the Joint Review Committee on Educational Programs on Nuclear Medicine Technology (JRCNMT). All eight of these areas of study are completed during the final twelve months of the degree program.

(2) Students are also required to complete a Medical Terminology course/program. Options to fulfill this requirement must be approved by the Coordinator of Allied Health Professions.

2. Summary of changes

- a. Mathematics requirement change from MA 110 Elementary Functions or higher to MA 217 Probability and Statistics..
 - b. Add to science requirements - BI 105 Cell Biology.
 - c. Requiring CO/BE/IM 101 Microbased Computer Literacy as Liberal Studies elective.
 - d. Requiring successful completion of a Medical Terminology course with subsequent transfer of credit to IUP or successful completion of a designated programmed instruction on Medical Terminology.
 - e. No longer requiring non-western elective from social science category, and no longer recommending AN 110.
- a. Table comparing old and new program
See attached table comparing current and proposed Nuclear Medicine Technology curriculum.

**Current Nuclear Medicine Technology Program
Bachelor of Science--Nuclear Medicine
Technology**

Liberal Studies: As follows: **54**

Composition: EN101, EN202

Humanities: three courses, one in each area

Fine Arts: one course

Mathematics: MA110 or higher level

Natural Science: CH101-102

Social Science: PC101, SO151, non-western and social science (AN110 recommended)

Health and Wellness/ROTC: HP143, FN143, or MS101-102

Liberal Studies Electives/Synthesis: four Liberal Studies electives or three Liberal Studies electives and one Synthesis course

Major:

Required Courses:(1) **32**

NT427 Nuclear Scintigraphy	3sh	
NT428 Radiation Physics	3sh	
NT429 Nuclear Medicine Instrumentation	3sh	
NT430 Radiation Biology and Radiation Protection	2sh	
NT431 In Vivo/In Vitro Non-Imaging	1sh	
NT432 Radiopharmaceuticals	3sh	
NT433 Introduction to Tomographic Imaging	1sh	
NT434 Clinical Nuclear Medicine	16sh	

Other Requirements: **18**

Science Courses:

BI150 Human Anatomy	3sh	
BI151 Human Physiology	4sh	
PY111 Physics I Lecture	3sh	
PY121 Physics I Lab	1sh	
PY112 Physics II Lecture	3sh	
PY122 Physics II Lab	1sh	

Required course:

EN310 Public Speaking	3sh	
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Free Electives: **17-20**

At least two of the selected courses must be Writing Intensive

Total Degree Requirements **124**

(1) These courses are offered at the University of Findlay/Nuclear Medicine Institute, Findlay, Ohio. These areas of study are consistent with requirements of the Committee for Allied Health Education Accreditation. All eight of these areas of study are completed during the final twelve months of the degree program.

**Proposed Nuclear Medicine Technology Program
Bachelor of Science--Nuclear Medicine
Technology**

Liberal Studies: As outlined in Liberal Studies section with the following specifications: **54-55**

Mathematics: MA217

Natural Science: CH101-102

Social Science: PC101, SO151

Liberal Studies Electives: CO/BE/IM101 plus three Liberal Studies electives or two Liberal Studies electives and one Synthesis course

Major:

Required Courses:(1) **32**

NT427 Nuclear Scintigraphy	3sh	
NT428 Radiation Physics	3sh	
NT429 Nuclear Medicine Instrumentation	3sh	
NT430 Radiation Biology and Radiation Protection	2sh	
NT431 In Vivo/In Vitro Non-Imaging	1sh	
NT432 Radiopharmaceuticals	3sh	
NT433 Introduction to Tomographic Imaging	1sh	
NT434 Clinical Nuclear Medicine	16sh	

Other Requirements: **21**

Science Courses:

BI105 Cell Biology	3sh	
BI150 Human Anatomy	3sh	
BI151 Human Physiology	4sh	
PY111 Physics I Lecture	3sh	
PY121 Physics I Lab	1sh	
PY112 Physics II Lecture	3sh	
PY122 Physics II Lab	1sh	

Other courses: (2)

EN310 Public Speaking	3sh	
-----------------------	-----	--

Free Electives: **17**

At least two of the selected courses must be Writing Intensive

Total Degree Requirements **124-125**

(1) These courses are offered at the University of Findlay/Nuclear Medicine Institute, Findlay, Ohio. These areas of study are consistent with requirements of the Joint Review Committee on Educational Programs on Nuclear Medicine Technology (JRCNMT). All eight of these areas of study are completed during the final twelve months of the degree program.

(2) Students are also required to complete a Medical Terminology course/program. Options to fulfill this requirement must be approved by the Coordinator of Allied Health Professions.

- b. The following courses are required:

MA 217 Probability and Statistics
CO/BE/IM 101 Microbased Computer Literacy
BI 105 Cell Biology

3. Rationale for Changes

The Joint Review Committee on Educational Programs in Nuclear Medicine Technology has distributed new Essentials for Accreditation. These Essentials have added Statistics as a prerequisite for application to all Nuclear Medicine Technology Programs, beginning in January, 1999 (see Page 9, IV.B2.a and 3 in Essentials and Guides for an Accredited Educational Program for the Nuclear Medicine Technologist). Thus the change in the Mathematics requirement from MA 110 or higher to MA 217. Two courses-- human physiology and computer literacy--are also required for admission to the program. The prerequisite for BI 151 at IUP is BI 105. Until now students have used two of their elective choices to take BI 105 and BE/CO/IM 101. Since they are clearly program requirements, it is felt that the changes put the sequence of courses into proper format.

Since Nuclear Medicine Institute (NMI) no longer offers a Medical Terminology course, it is up to their affiliates to provide evidence of knowledge in this area. IUP does not offer such a course, but students may fulfill this requirement through transfer of credit or through successful completion of a programmed instruction in Medical Terminology recommended by the Director of NMI and the Coordinator of Allied Health Professions.

In order to provide for greater academic choices for Nuclear Medicine Technology majors, the previous requirement that the non-western liberal studies selection comes from the social science list has been dropped and AN 110 is no longer recommended as that choice.

Part III Implementation

1. Students already in the program will be counseled by the Coordinator of Allied Health Professions to register for the new requirements.
2. Faculty workload will not be affected by the proposed revisions. (Please see letters of support from the Biology, Computer Science and Mathematics Departments.)
3. Resources are adequate for the proposed changes. (Please see letters from Mathematics, Biology and Computer Science Departments.)
4. Enrollment should not change as a result of these changes.

FINDLAY

THE UNIVERSITY OF FINDLAY

Nuclear Medicine Institute

MEMORANDUM

To: Clinical Supervisors
Academic Representatives

Date: February 24, 1998

From: Elaine @ NMI

Re: Revised JRCNMT Essentials

Enclosed find your copy of the 1998 JRCNMT Revised Essentials for a nuclear medicine technology program. Please review it to familiarize yourself with any anticipated changes in your role within our program. These new program requirements go into effect January 1999 and I will be submitting a document to the JRCNMT as to what program changes we will make in order to comply with the new requirements. (There goes my summer!)

If possible, I would like to make academic program curricular changes in time for the August 1998 class which would then be followed with any clinical changes effective January 1999. In this way, any student graduating in 1999 would meet the new requirements.

Prerequisite requirements (i.e. addition of a postsecondary statistics course) would become effective with any student starting in the January 1999 program. (Those of you involved in the academic affiliates should note this change.)

Since copies of these Essentials are limited, please keep this copy for your use. Site visit requirements state that you must have a copy of the Essentials available during any program or JRCNMT site visit.

A discussion of potential program changes will be placed on the agenda for the Spring Advisory Committee Meeting to be held in April or May. (The exact date has not be set yet. I am waiting to see if a replacement for Jen is forth coming. We are presently in the interview process for a replacement.)

If you have any questions or concerns at this time regarding the new Essentials please call and let me know.

FINDLAY

THE UNIVERSITY OF FINDLAY

Nuclear Medicine Institute

TO: NMI - The University of Findlay
Academic Affiliates

FROM: Elaine M. Markon, MS, RT(N), CNMT
NMI Program Director

DATE: March 27, 1998

RE: JRCNMT Accreditation Change

The JRCNMT accreditation body, has added Elementary Statistics as a prerequisite for applying to all Nuclear Medicine Technology programs, beginning in January, 1999.

Please notify any interested students of this change and update your advising plan to include Elementary Statistics. As always, an official transcript showing successful completion of all prerequisite classes will need to be sent to the Nuclear Medicine Technology Institute to which the student is applying.

If you have any questions, concerning this change, do not hesitate to call the Nuclear Medicine Institute at (419) 424-4708.

IV.B.2 Education in health and basic sciences which will provide cognitive learning experiences as a foundation to understanding and performing clinical responsibilities.

IV.B.2.a Postsecondary education in human anatomy and physiology, physics, mathematics, medical terminology, statistics and computer applications, oral and written communications, and general chemistry shall have been completed or be provided as part of the education program. Institutions such as junior colleges, universities and postsecondary technical institutes may be used to provide education in these requisites prior to or concurrent with specific courses in nuclear medicine.

IV.B.2.b Students with prior qualifications in a clinically-related allied health profession with a minimum of two years education in an accredited educational program may possess the identified postsecondary educational requirements.

IV.B.3 Academic instruction for the professional nuclear medicine technology curriculum shall include as a minimum the following content areas:

1. methods of patient care,
2. radiation safety and protection,
3. nuclear medicine physics and radiation physics,
4. nuclear instrumentation,
5. statistics,
6. radionuclide chemistry and radiopharmacy,
7. radiation biology,
8. Diagnostic nuclear medicine imaging and non-imaging in-vivo and in-vitro procedures,
9. radionuclide therapy
10. computer applications for nuclear medicine,
11. immunology as related to nuclear medicine, and
12. quality control and quality assurance.

IV.B.4 Supervised clinical education, experience and discussions shall include the following:

1. patient care and patient recordkeeping;
2. radiation safety techniques that will minimize radiation exposure to the patient, public, fellow workers and self;
3. participation in a quality control program;
4. preparation, calculation, identification, administration (where permitted), disposal of radiopharmaceuticals and performance of all radionuclide quality control procedures;
5. performance of an appropriate number and variety of procedures to achieve desired clinical competencies; and
6. clinical correlation of nuclear medicine procedures.

Guideline After completing the program, each student should have attained a level of knowledge and skill to be capable of performing the various tasks as detailed.

I. Patient Care

- A. A nuclear medicine technologist provides patient care by:*
- 1. acquiring adequate knowledge of the patient's medical history to understand and relate to the patient's illness and the pending diagnostic or therapeutic procedures;*
 - 2. providing for proper comfort and care of the patient prior to, during and after a procedure;*
 - 3. establishing and maintaining good communication with each patient (i.e., making introductions, explaining the procedures, answering questions);*

FROM THE "ESSENTIALS AND GUIDELINES FOR AN ACCREDITED EDUCATIONAL PROGRAM FOR THE NUCLEAR MEDICINE TECHNOLOGIST". (Essentials initially adopted in 1970; revised in 1976, 1984, 1991, and 1997).

IUP

Computer Science Department

319 Stright Hall

x72524

SUBJECT: Changes in Nuclear Medicine Program

TO: R. L. Hartman
Nursing and Allied Health

FROM: William W. Oblitey *W.W.O.*
Chair

The Computer Science Department welcomes your selection of CO101 (Microbased Computer Literacy) as a Liberal Studies requirement for your students. The support of your selection by this department will not hurt our program in any way. We have been given permission to replace our two retired faculty, and we are making plans to establish a departmental closed laboratory. We thus have the necessary faculty and resources to support your program.

W.W.O.

Department of Mathematics
Indiana University of Pennsylvania
233 Stright Hall
Indiana, Pennsylvania 15705-1072

(724) 357-2608
(724) 357-5700 (FAX)



September 11, 1998

Dr. Rebecca L. Hartman
Department of Nursing and Allied Health
244 Johnson Hall
IUP

Dear Dr. Hartman:

I believe changing the requirement for students majoring in Nuclear Medicine Technolgy from MA 110 Elementary Functions to MA 217 Probablity and Statistics is appropriate and I support the change. We generally offer about ten sections of MA 217 each semester, and three sections during summer sessions. There will be no problem with accomodating your students in MA 217 during any of these timeframes.

Sincerely,

A handwritten signature in cursive script that reads "Gerald Buriok".

Gerald Buriok, Chairman
Mathematics Department

MAIL> extract tt:

From: GROVE::RHARTMAN "R.L.Hartman, Nursing and Allied Health" 24-SEP-1998
13:14:26.10
To: PEDACI
CC:
Subj: please add to the NT proposal, thanks

From: IN%"RPrezant@grove.iup.edu" "Bob Prezant" 23-SEP-1998 15:14:04.23
To: IN%"RHARTMAN@grove.iup.edu" "R.L.Hartman, Nursing and Allied Health"
CC: IN%"rprezant@grove.iup.edu"
Subj: RE: changes in Nuclear Medicine Technology program

Return-path: <RPrezant@grove.iup.edu>
Received: from BOB.BI.IUP.EDU ("port 1066"@bob.bi.iup.edu)
by grove.iup.edu (PMDF V5.1-12 #24436)
with SMTP id <01J25FANYFSU900S4Z@grove.iup.edu>; Wed, 23 Sep 1998 15:14:00 EDT
Date: Wed, 23 Sep 1998 15:02:29 -0400
From: Bob Prezant <RPrezant@grove.iup.edu>
Subject: Re: changes in Nuclear Medicine Technology program
X-Sender: RPrezant@oak.grove.iup.edu
To: "R.L.Hartman, Nursing and Allied Health" <RHARTMAN@grove.iup.edu>
Cc: rprezant@grove.iup.edu
Message-id: <3.0.5.32.19980923150229.007e4430@oak.grove.iup.edu>
MIME-version: 1.0
X-Mailer: QUALCOMM Windows Eudora Light Version 3.0.5 (32)
Content-type: text/plain; charset="us-ascii"

Becky,

So sorry for the delay. Swamped is an understatement.

I'm glad to support the official addition of BI 105, Cell Biology, as a prerequisite course for Nuclear Medicine Technology students. Since these students have already been enrolled in the course, as an elective, there will be no impact to our enrollment patterns, resources or teaching loads. If you need an additional statement of support, please let me know.

Bob

At 03:09 PM 9/10/98 -0400, you wrote:

>The accreditation body for Nuclear Medicine education has added new
>requirements for admission to a NMT program. All students are required to
now
>have statistics as the math requirement. I am in the process of writing the
>program revision proposal and need a letter from you, Jerry, that says its
OK with
>you. If of course it is OK with you. Additional requirements include Human
>Physiology whcih we have had on the books from the beginning. But we have
not
>had the prerequisite--BI105-- required. I want to correct that error and am
>not sure if I
>need a letter from you, Bob. But it couldn't hurt. Up till now, the
students
>have picked up BI105 with an elective choice. I'm just trying to make
everything
>kosher. I don't anticipate a large enrollment in the future. These changes
>should only affect 5-6 maximum student per year. But I need to know if the
>changes would affect faculty teaching loads or resources. Please advise.
>Thanks for your cooperation.