

Dutta, Lakshmi

From: Case-Smith, Jane [Jane.Case-Smith@osumc.edu]
Sent: Monday, January 14, 2008 12:39 PM
To: Kay Halasek; case-smith.1@osu.edu
Cc: Smith, Randy; Dutta, Lakshmi
Subject: RE: SAMP MS proposal
Attachments: MS Clinical Nutrition Track (2).docx; SAMP MT - MS Program Proposal.docx; Proposed Advanced Practice MS Degree for Rad Tech.doc; Graduate program revision 2007.doc; PROPOSED ADVANCED PRACTICE MS DEGREE.doc

Dear Kay, We appreciate your report and CAA's review of our request. I am attaching 5 documents: One explains our intent in reducing the number of credit hours required for the MS degree in Allied Medical Profession and four are examples of the new areas of specialization that have been approved by the SAMP Graduate Studies Committee and the SAMP Graduate Faculty. As you can see about half of the new "Areas of Specialization" for the MS degree do require more than 45 hours (Medical Technology requires 65 and the Imaging Assistant requires 47). Therefore the required number of credits for the MS program will differ based on the knowledge and skill outcomes that we hold for the students in the various areas of specialization.

As indicated by the request, the 5 required credits that we removed were 5 credits of "electives". These electives were any course that the student wished to take. Therefore the elective course(s) did not contribute to the outcome of the degree, that is, specialized knowledge in an area of allied medicine.

Students are free and welcome to take electives during their program, but now only 3 elective credits would "count" toward the degree. Because our MS program is a very focused program on specific content areas, we do not feel that we have lost content. At 45 credits, the degree is more efficient for an adult learner who is focused on a specific profession and a specific area of specialization.

Because our MS has at least seven areas of specialization, it is difficult to present a single list of courses; let me know if additional information is needed. I would be happy to forward all of the newly revised areas for your review should that be helpful. Also let me know if you prefer that I send a hard copy of these documents.

Jane Case-Smith
 Professor and Chair
 Occupational Therapy Division
 School of Allied Medical Professions
 The Ohio State University
 614-292-0357

From: Kay Halasek [mailto:halasek.1@osu.edu]
Sent: Friday, January 11, 2008 11:40 AM
To: case-smith.1@osu.edu
Cc: smith.70@osu.edu; dutta.2@osu.edu
Subject: SAMP MS proposal

January 11, 2008

TO: Professor Jane Case-Smith, School of Allied Medical Professions

FROM: Professor Kay Halasek, Chair, Council on Academic Affairs

1/22/2008

RE: Proposal to reduce hours in the SAMP MS degree

At its meeting of December 5, 2007, CAA began discussing the proposal to reduce from 50 to 45 the hours required in the Master of Science (M.S.) in the School of Allied Medical Professions. At that meeting, I introduced the proposal and the details of the changes, noting that currently SAMP graduate students must complete 50 graduate credit hours to receive the School's M.S. degree. These 50 hours include 10 hours of core courses, 6 hours of research methods courses, 6 hours of thesis, 20 hours of track courses, and 8 hours of electives. I then noted that the School has redesigned its tracks into areas of emphasis that allow more flexibility in the core and track courses. Because of increased flexibility in the areas of emphasis, students can design their own learning within broad parameters, and the School proposes to reduce the 8 credits hour of electives to 3, enabling the students to graduate with 45 credit hours, the minimum required by the University.

The School articulated as part of its rationale a desire not to hold students to more than the minimum hours required by the University. This justification did not prove convincing to the members of CAA. The proposal also notes that the School now has a Ph.D. program and would like to move interested MS students more efficiently into the Ph.D. program. At the close of the conversation, enough concern remained that CAA asked that I contact you to request additional information, namely a chart listing side-by-side the specific course changes proposed. In addition, please include additional information regarding the rationale for the proposed changes that speaks to the curricular and pedagogical advantages beyond simply revising the number of hours required to the minimum required by the University.

Once you have provided this additional information, the proposal will be brought again before CAA for discussion and action. If you have any questions, please contact me at halasek.1@osu.edu or at 2-2468.

Kay Halasek
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**Clinical Nutrition Track
Master of Science Program
School of Allied Medical Professions**
<http://amp.osu.edu/md/>

Area of Emphasis	Clinical Nutrition
Program Coordinator	Kay N. Wolf, Ph.D., R.D., L.D. Wolf, k@osu.edu

Core Courses
(10 Credit Hours Required)

Course	Offered	Title	Credits	Required	Recommended
AM 795A		Intro to Allied Health Grad Studies	1	X	
AM 830	Win	Leadership and Policy	3		
AM 850	Win	Issues in Allied Health	3		X
AM 730	Aut	Managerial Leadership in Allied Health	3	X	
AM 753	Spr	Teaching in the Allied Health Professions	3		
AM 892	Spr	Evidence Based Practice	3	X	

Research Courses
(6 Credit Hours Required - 1 Class From Each Section Below**)

Section 1 – Research Design or Methodology

Course	Offered	Title	Credits
PUBH-BIO 701*	Aut, Win	Design & Analysis of Studies in the Health Sciences I	4
PUBH-BIO 702*	Win, Spr	Design & Analysis of Studies in the Health Sciences II	4
AEE 885		Research Methods	3
AEE 886		Research Design	3

Section 2 – Data Analysis

Course	Title	Credits
STAT 528	Data Analysis I	5
STAT 529	Data Analysis II	3
STAT 530	Data Analysis III	4
PUBH-EPI 705	Design & Implementation of Health Surveys	4
PSYCH 826	Statistics in Psychology	4
PSYCH 827	Analysis of Variance	4
PSYCH 828	Correlational Analysis	4
AM 892	Evidence Based Practice	3
AEE 887	Analysis & Interpretation of Data	3
AEE 888	Instrumentation & Procedures for Data Collection	3
ED P&L 800	Qualitative Research	3

* Recommended Courses

**Note the AEE 885/886 & PUBH-BIO 701/702 series each fulfill the Research Course criteria. AEE 886 & PUBH-BIO 702 can be substituted in Section 2 for Data Analysis

Area of Emphasis Courses
(9 Credit Hours Required)

Course	Offered	Title	Credits
MD 647	Win	Complementary Nutrition Therapy: Supplements & Herbs	3
MD 838	Win	Pediatric & Maternal Nutrition	3
MD 856	Spr	Nutrition in Critical Care	3
MD 857	Aut (even)	Nutrition in Metabolic Imbalance	3
MD 858	Aut (odd)	Community Nutrition	3

Required Practica
(2 Credit Hours Required)

Course	Offered	Title	Credits
MD 889.02	Spr – Seniors	Advanced Clinical Practicum	2

Elective Courses
(12 Credit Hours Required)

Course	Title	Credits
AM 607	Role of Integrative Medicine in Society	5
BIOCHEM 511	Biochemistry	5
HUMN NTR 705	Nutrition & Exercise	3
HUMN NTR 761	Carbohydrate & Lipid Metabolism	5
HUMN NTR 762	Principles of Nutrient Metabolism	5
HUMN NTR 763	Vitamin & Mineral Metabolism	5
AM 601	Death, Loss & Grief from Multiple Perspectives	4
AM 632	Diabetes Care Management	2
AM 660	Healthcare Financial Management	3
AM 665	Understanding the Aging Process	3
AM 701.01	Interprofessional Care	3
AM 700.03	Ethical Issues	3
BUS-M&L 650	Marketing	4
OTHER	Courses Mutually Agreed Upon With Advisor	
OTHER	MD Courses Not Selected as Area of Emphasis	

Thesis (AM 999)
(6 Credit Hour Required)

Total Credit Hours
(45 Credit Hours Required for M.S. Eligibility)

**Proposal for Area of Emphasis
Master of Science Program
School of Allied Medical Professions**

Name of Coordinated Program:	Medical Laboratory Science
Coordinator:	Sally Rudmann
Targeted Group(s) of Students:	Students with BS degrees in natural or physical sciences who wish to combine a certificate in MT with an MS

Purpose Statement:

Medical Technologists (Clinical Laboratory Scientists) are experts in the use of laboratory testing in the diagnosis, management, and treatment of disease. Graduates of the program are most commonly employed in hospitals and clinics, performing and interpreting clinical laboratory tests. Students in the program study the theoretical principles of clinical microbiology, chemistry, hematology, immunology and immunohematology. In each sub-discipline, students apply theory in laboratory and problem-based learning settings, and in supervised practice. After satisfactory completion of the first two years of the curriculum, students receive a certificate of study and are eligible to sit for national certifying examinations. Upon satisfactory completion of all program requirements, students receive a Master of Science in Allied Health. The MT Certificate program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences.

Core Courses (2nd and Third Year)

Course Number	Course Title	Required	Recommended
AM 830	Leadership and Policy	NA	NA
AM 850	Issues in Allied Health	NA	NA
AM 795A (1)	Introduction to Allied Graduate Studies	X	
AM 730 (3)	Managerial Leadership in Allied Health	X	
AM 753 (3)	Teaching in the Allied Health Professions	X	
AM 892 (3)	Evidence Base Practice	X	
Total Credits - 10			

Research Courses

Research course type	Examples or options (asterisk courses that are preferred or highly recommended)
Research design or methodology Ag Ed 885 (3) Ag Ed 886 (3)	Required Required
Total Credits - 6	

Area of Emphasis Courses (All required courses for major by NAACLS)

Course numbers/credits	Course titles
MT 615.01(4); .02 (2)	Advanced Hematology: Lecture and Lab
MT 635.0 (5)1: .02 (3)	Immunoematology: Lecture and Lab
MT 602 (3)	Clinical Correlations in Microbiology
MT 604 (2)	Clinical Correlations in Chemistry
MT 605 (3)	Clinical Correlations in Immunoematology
Total Credits - 22	

Practica

Required Practica	Course number/credits	Course title
	AM 889.01 (2)	Education Practicum
	MT 669 (12)	Supervised Practice
	MT 679 (2)	Supervised Practice
	MT 689 (2)	Candidacy Exam Prep
	MT 795 (2)	Seminar
Total Credits - 20		

Research

Research	AM 999	4
Total Credits - 4		

Electives

Electives: A minimum of 3 credits of electives in pathology or basic sciences including but not limited to courses listed below.		
	Pathology 640 (4)	Fundamentals of Oncology
	Pathology 650 (5)	Pathology
	Pathology 792 (3)	Special Lectures in Pathology
	Pharmacology 600 (3)	General Pharmacology
	MVIMG 600 (2)	Evolution of Emerging Viruses
	Physiology 601 and/or 602 (5)	Organ System Physiology
Total Credits – 3		

Thesis/Project

Plan	Optional	Recommended
Plan A (thesis)	X	
Plan B (research project/examination)		X

TOTAL CREDITS – 65

Candidacy Exam

All students in the graduate coordinated track (plan B) will take a comprehensive candidacy examination in the summer between their 2nd and 3rd year. The exam will consist of a comprehensive registry-style examination and one – two essays prepared by faculty. Essays will be designed to focus on the individual student's area of focus.

Project

It is anticipated that most students in the program will elect Plan B. Plan B students will be required to complete a comprehensive clinical case study in their area of focus. The final project will consist of four chapters: an introduction, a review of the literature, case(s) (in publishable format), and a discussion. Students will defend their project in an oral examination format.

Process

This far the proposal has been reviewed by the MT faculty, Dr. Jane Case-Smith, Lisa Terek, and the MT clinical coordinators from our clinical affiliates. Further review will include program graduates and current MT undergraduate students.

**PROPOSED ADVANCED PRACTICE MS DEGREE
IMAGING ASSISTANT EMPHASIS
Kevin D. Evans, PhD**

Introduction

An *imaging assistant* is a concept that has germinated here in the United States but has roots from advanced practice standards in the United Kingdom. Radiographers in the UK all enter the profession at the BS level and as they gain advanced levels of practice, they become Radiographer Consultants¹. Many British technologists continue their education and receive a MSR (Master of Science in Radiology). With the decrease in the number of Radiologists in the US and the increased workload of interpreting MRI and CT patient cases, the American College of Radiology has endorsed the creation of the Radiology Assistant as a way to provide the same high level of patient care and continuous interpretation of complex technological studies.

The *Imaging Assistant* MS emphasis could provide qualified BS graduates practicing as Radiologic Technologists, Diagnostic Medical Sonographers, Mammographers, and Vascular Interventional Technologists to obtain advanced practice skills and education thereby raising the level of patient care clinically. This occupational career has been described as a Radiology Assistant with a national certification examination administered by the American Registry of Radiologic Technology. Providing this specialization within our current Masters of Science program will place the School of Allied Medical Professions as only one of three MS level programs preparing *Imaging Assistants* in the United States. The Division of Radiologic Sciences and Therapy envisions the growth of this program to encompass not only technologists working in Radiology Departments but also in Cardiology, Obstetrics, Internal Medicine, and anywhere imaging procedures might be indirectly supervised by an interpreting physician. Because of the variety and diversity that this practitioner will encounter working for interpreting physicians, we have chosen the broader title of *Imaging Assistant*.

History of the Career

In 1993, the U.S. Army contracted with Weber State University in Ogden, Utah to develop a specialized Radiologic Technologist for use on a wide scale in military medicine.² As Weber's Radiologic Sciences faculty worked to develop such a curriculum, the U.S. Army withdrew their support and decided against implementing such a medical professional. Weber had invested a great deal of time in the development of this new curriculum so they forged ahead and graduated their first class of specialized Radiologic Technologists in 1998. These technologists were called Radiology Practitioner Assistants and the faculty quickly developed a certifying examination and administered it to the graduates. Radiology Practitioner Assistants (RPAs) have continued to be educated at Weber State University and certified to practice. Currently, 280 RPAs are practicing in 42 states. The RPA has a more broadly defined scope of practice which states that their duty is to provide primary health care services with physician supervision.³ Additional duties for the RPA are to exercise autonomy in decision making in the role of a primary health caregiver with regard to patient assessment, patient management, and in providing a broad range of radiology diagnostic and interventional services.³ This was quite a broad position description and ultimately

led the American College of Radiology (ACR) to become very skeptical as to the RPAs ability to interpret images as part of their decision making role. Since the ACR had not been consulted in the formation of the RPA, the physician organization has come out strongly against the further development of the RPA as a mid-level provider of imaging services. Weber continues to provide this BS level program and has even developed a distance education format for technologists. The RPA program at Weber requires that students set up their own clinical preceptorship. Weber State's RPA candidates receive 1800 clinical hours of training with their preceptors and classroom instruction is 2 ½ days per semester.² The Ohio State University's Radiology Department has recently paid for a technologist to complete the Weber program and currently employs this technologist in the OSU Vascular Interventional lab at the Radiology Department.

The Society of Diagnostic Medical Sonographers began to secretly develop a mid-level care provider in 1997. A commission was formed to explore the option of the creation of a mid-level provider that could use ultrasound to assist the interpreting physician with making a diagnosis quicker and increasing the turn around time for patients to be evaluated. The commission worked for two years and ultimately published a paper describing a new occupation, the Ultrasound Practitioner (UP). The UP was designed as a MS entry level position and this career was modeled after the Nurse Practitioner and Physician Assistant.⁴ The UP was required to have at least 5 years experience as a registered sonographer, complete an image interpretation core set of courses, and advanced clinical imaging experiences to be eligible for a UP national certification examination.⁵ This concept was presented in 1999 in several open forums and the ACR was not supportive of this concept due its lack of input and the option to interpret images which was seen as infringing on their livelihood. To date, no UP MS program has been established and only George Washington University in Washington, D.C. and University of Arkansas for Medical Sciences in Little Rock, Ark., are still pursuing program development.

In 2002, the American Society of Radiologic Technologist (ASRT) gained the support of the ACR to explore an alternative model to provide advanced practice support for Radiologists and patients. Thus the Radiology Assistant was developed and the duties for this profession were defined in concert with the levels of supervision needed to practice safely: personal, direct, and general.² At the same time as the ASRT and ACR were defining the job duties, the American Registry Radiologic Technologist (ARRT) was working to develop a certifying examination that would act as a national board for the RA. The RA was projected to participate in 42 of 80 possible clinical activities which included reviewing a patient chart to performing imaging procedures. Nine procedures were selected for special emphasis and these involved the placement of needles or lines within the patient. These nine procedures were regarded as needing personal supervision. Examples of procedures that needed only direct supervision were RAs conducting fluoroscopy procedures and arthrograms. The ASRT provides this description of the RA:

As a radiologist extender in the diagnostic imaging environment, the RA has three major areas of responsibility. First, the RA takes a leading role in patient management and assessment. Duties in this area might include determining whether a patient has been appropriately prepared for a procedure, obtaining patient consent prior to beginning the procedure, answering questions from the patient and his or her family, and adapting

*exam protocols to improve diagnostic quality. The radiologist assistant also is expected to serve as a patient advocate, ensuring that each patient receives quality care while in the radiology department or clinic. Second, the radiologist assistant performs selected radiology examinations and procedures under the supervision of a radiologist. Although each RA's responsibilities will vary, a few of the procedures include assisting radiologists with invasive procedures, performing fluoroscopy for noninvasive procedures under direct supervision of the radiologist, placing nasoenteric and oroenteric feeding tubes in uncomplicated patients, and performing selected peripheral venous diagnostic procedures. The level of radiologist supervision varies, depending on the type of examination. And third, the RA may be responsible for evaluating image quality, making initial image observations and forwarding those observations to the supervising radiologist. The supervising radiologist remains responsible for providing a final written report, an interpretation or a diagnosis.*⁶

The ASRT provided start up funding to seed RA programs across the US and SAMP's Radiologic Technology Division did apply for a seed grant. Unfortunately, we were not awarded a seed grant and four programs were funded which accelerated their development. An example of a funded institution is Midwestern State University (MSU) which requires that applicants have a BS degree and three years of practice as a Radiologic Technologist. MSU provides 1536 clinical hours of experience and two weekends per semester in the classroom.² MSU only provides a RA certificate of completion as a post BS degree option. As of January 2007, MSU admitted students to their finalized MS program. It is estimated that around 30 RAs have been educated at either Loma Linda University or Midwestern State University.¹ In addition, these universities have established or are developing a RA programs throughout the US: Bloomsburg University in Bloomsburg, Pa., Massachusetts College of Pharmacy and Health Sciences in Boston, Mass., Quinnipiac University in Hamden, Conn., South College in Knoxville, Tenn., University of Arkansas for Medical Sciences in Little Rock , Ark., University of Medicine and Dentistry of New Jersey in Newark , N.J., University of North Carolina at Chapel Hill in Chapel Hill , N.C., Virginia Commonwealth University in Richmond, Va., and Wayne State University in Detroit, Michigan.⁶

Currently Nina Kowalczyk and Terri Bruckner are appointed members of the RA Scope of Practice Task Force and continue to provide input into the practice standards at a national level. Dr. Kevin Evans is on the board of directors of ARDMS and will be actively involved in the development of a sonography assistant registry examination.

The ARRT is the only national certifying agency that currently provides a certifying examination for an Imaging Assistants. The examination was developed with input from the RPA examination, as well as, focus groups to identify domains of competency matched to the RA scope of practice. ARRT requires that all applicants complete one year of full-time clinical experience following radiography certification. An example has been provided for clinical experience to be earned in a related healthcare field. All applicants must have completed a formal educational program. Additionally the applicants must provide proof of didactic competence, clinical competency, complete 5 case studies which are submitted, a baccalaureate degree, and provide a criminal background check.⁷ The clinical competency requires documentation of 375 mandatory patient cases and a total of 125 elective cases.⁶ The American Registry of Diagnostic

Medical Sonographers (ARDMS) has also been approached to write a certifying examination for advanced practice in sonography. To date no examination has been developed but the board will meet in September 2007 to discuss conducting a task analysis for such an examination. At this time, the ARRT examination to certify a Registered Radiology Assistant (RRA) is the only credential that can be obtained in the US. Successful registrants would still need to consult their employer to insure that state regulations and credentialing at the institutional level will allow them to perform the duties and responsibilities of an RRA. In 2006, there were only 15 RRAs practicing in the field.¹

Growth Potential

The demand for RAs far exceeds the current supply in the US. The most common employer of RAs are Radiology group practices. A 2004 ASRT survey of RAs in the US found that the average assistant was reporting earnings of between \$90,000 and \$95,000. A reported salary boost of \$30,000 per year occurs for Radiologic Technologists.^{8,9} The maximum salary reported was \$140,000 per year.² We have been keeping a list of technologists who want to be contacted about our program of study since 2004. We have over 50 names of potential students who would either complete a BS in Radiologic Sciences or apply directly to the Graduate Program for consideration. We have no doubt that we will have plenty of applicants for this MS specialization.

One of the driving factors is the 6% increase in imaging examinations coupled with a 1.5% decrease in Radiologists. This means that only 29,500 board certified Radiologists are available to interpret and provide supervision for 25 million medical imaging exams in the US.² It is no wonder why the ACR has been actively lobbying in several states to allow RA's to perform therapeutic procedures. This also comes at a time when Medicare has recently drastically cut reimbursement for many vascular imaging procedures. Radiologists realize that in order for these examinations to be affordable for the patient and the hospital, a mid level provider is needed to continue the current level of quality care.

All graduates and certified RAs will need to consult their potential employer to insure that hospital credentialing will allow them to practice upon hire. The educational program will need to work with clinical sites and mentoring physicians to insure that hospital credentialing provides a clear process for the student to be institutionally credentialed to perform procedures under appropriate physician supervision.

Impact of the Imaging Assistant

The Ohio State University's School of Allied Medical Professions' MS with emphasis as an *Imaging Assistant* will make a significant impact on the quality of health care in the US. Vital imaging procedures need to be guaranteed, regardless of the revenue that is generated, by the federal and state medical carriers. The Radiologist or interpreting physician can not afford to provide personal interventions for some procedures. Many of these can still be performed by a trained *Imaging Assistant* and avoid the financial loss by the institution. It is also feasible that the *Imaging Assistant* can stream line the imaging protocol for time intensive procedures. Fluoroscopy and line placement can be accomplished by a RRA and the flow of patients can be maintained in a busy hospital Radiology department. Additionally, many procedures that are being routinely conducted

by BS and AS level imaging personnel can be monitored in order to raise the quality for patients.¹⁰ Clinical supervision of imaging studies can be directly affected by having the RRA working with the technical staff. The bottom line, the *Imaging Assistant* has the potential to insure high quality care for patients and not sacrifice the Radiologist's time in interpreting dynamic studies conducted with CT, MRI, or PET. We also submit that the *Imaging Assistant* has the highest potential to raise levels of patient satisfaction with the department. SAMP *Imaging Assistants* will primarily be trained in General Radiology or Vascular Interventional Radiology for their clinical mentoring but we see this evolving over time.

We are happy to report that Dr. Christopher Lee, MD, a Radiologist at The Ohio State University's Radiology Department announced that RST was exploring the *Imaging Assistant* at the recent ACR District meeting and this was met with applause from the audience.

References

1. Price, R. and Paterson, A.: Consultant practitioners in radiography- a discussion paper. *Radiography* 8: 97-106.
2. Brice, J. (2006). Physician extenders bolster productivity of practices. *Diagnostic Imaging*. Nov. pp.113-117.
3. Valkenburg, J., Lopatofsky, L., Ralph, B. (2001). Role of the Physician Extender: Panel Discussion. National Society of Radiology Practitioner Assistants. pp. 143.
4. Hall, R, Coffin, C, Cyr, D., et. al. (1999). The ultrasound practitioner- A proposal: Response to the SDMS for the development of a middle care provider in ultrasound imaging. *JDMS*. 15: 140-156.
5. Hall, R, Bierig, M, Coffin, C., et. al. (2001). Ultrasound practitioner master's degree curriculum and questionnaire response by the SDMS membership. *JDMS*. 17: 154-161.
6. The Radiologist Assistant.
http://www.asrt.org/Content/RTs/SpecialtySpecific/RadiologistAssistant/Radiologist_Assistant.aspx last visited on 5/18/07.
7. ARRT Introduction to the RRA Certification Application Packet. ARRT 2006 <http://www.arrrt.org> last visited on 5/18/07.
8. Smith, W. and Applegate, K. (2004). The likely effect of radiologist extenders on radiology training. *J. Am. Coll. Radiol.* 1: 402-404.
9. May, L (2004). Radiologist assistants in the US (lecture). 23rd International Congress of Radiology of the International Society of Radiology. 25-29 June 2004, Montreal.
10. The Radiology Assistant: Improving patient care while providing work force solutions. Presented at the Advisory Practice Panel March 9-10, 2002, Washington, DC.

Development of the SAMP MS *Imaging Assistant* Curriculum

In January of 2007, three work groups were composed to look at the ability for an *Imaging Assistant* to provide care in the clinical areas of General Radiology, Women's Health, and Vascular Interventional. Radiologic Science and Therapy faculty members were assigned to teams which corresponded to their areas of professional practice. The work groups were as follows: General Radiology- N. Kowalczyk, L. Partridge, and Dr. Colley, MD; Women's Health- Dr. Evans, S. Robertson, RN, RT, and Dr. Lee, MD; Vascular Interventional- T. Brucker, J. Boruki, BSRT, Dr. Gamboa, MD, Dr. Guy, MD, and Dr. Kahbiri, MD. The work teams discussed the role of the *Imaging Assistant* and most importantly the ability of physicians to provide a one on one mentorship for the number of examinations required for credentialing. Besides agreement on didactic course preparation, the work teams were able to consolidate which areas are prime for clinical mentoring. The conclusion reached is that Vascular Interventional and General Radiology are addressed by the RRA national certification examination and would be the

first areas to place graduate students in mentorships with a Radiologist. The hope is that Women’s Health will develop at a later date. After thoughtful consideration, the Radiologic Sciences and Therapy faculty with the support of Radiologists from Children’s Hospital and Mt. Carmel Medical Center, propose the following template for the MS as an *Imaging Assistant*:

Proposed Curriculum Template

I. Core Competency Areas and Courses: *10 credits*

AM 795A: Introduction to Allied Health Graduate Studies	1 credit
Choose 3 courses from the following list	
AM 830 Leadership and Policy in Allied Health	3 credits
AM 850 Issues in Allied Health	3 credits
AM 730 Managerial Leadership in Allied Health	3 credits
AM 753 Teaching in the Allied Health Professions	3 credits
AM 892 Evidence Based Practice*	3 credits

* can not be double counted as a Research course

Bold indicates those core courses faculty feels are most applicable to the IA.

II. Research Courses: *6 credits* minimum

Courses in 1) research design or methodology and 2) statistics or evidence based practice.

Examples:

1. Research design or Methodology
 - AGR EDUC 885, Research Methods, 3 credits
 - AGR EDUC 886, Research Design, 3 credits
 - AM 890, Qualitative Research, 3 credits
 - ED P&L 885, Qualitative Research, 3 credits

2. Statistics or Evidence Based Practice
 - AGR EDUC 887, Analysis and Interpretation of Data, 3 credits
 - AGR EDUC 888, Instrumentation and Procedures of Data Collection, 3 credits
 - STAT 528 Data Analysis, 5 credits
 - STAT 529 Data Analysis II, 3 credits
 - STAT 530 Data Analysis III, 3 credits
 - AM 892 Evidence Based Practice, 3 credits

III. Thesis or “Plan B” project – *6 credits* minimum

Research Thesis

Plan B- Development of 5 imaging case studies including a report of the pathology commonly dealt with in an imaging practice. A case study manuscript should be ready to be submitted for publication.

- IV. Area of Specialization- *20 credits* minimum
 PHARMCOL 600, General Pharmacology, 3 credits
 PT 863, Clinical Diagnostic Testing II: Diagnostic Imaging and Apps, 3 credits
 HSMP 811 Legal Environment of Health Care, 4 credits
 NSG 703 Path physiology of Altered Health States I, 5 credits -approved by CON
 NSG 704 Path physiology of Altered Health States II, 5 credits-approved by CON
 AM 790 Introduction to Gerontology, 3 credits
 AM 607 The Role of Integrated Medicine, 3 credits
 HIMS 650 Health Care Information Systems, 3 credits
 RAD SCI 600 Advanced Patient Care in an Imaging Environment, 3 credits

- V. Clinical Practicum:
 RADIOL 740, 5 credits* (3 quarters concurrent): *15 credits* minimum
 * Needs be completed concurrently in the final academic year of the degree

Summary

Core Courses:	10
Research courses:	6
Area of Specialization:	20
Case study:	6
Clinical Practicum:	<u>15</u>
Total	47

School of Allied Medical Professions
Master of Science Revision
March 2007

The committee agree to the following principles to guide the process.

- When possible, tracks should be integrated and flexible, particularly the advanced clinical tracks. A system for keeping track up to date is needed.
- The PhD and MS programs should be aligned and it should be easy to transition from the MS to the PhD program.
- Integration of MS and PhD coursework is needed. When appropriate, MS students can take PhD courses.
- More oversight of students' programs and more review of courses listed within tracks is desired.

OVERALL STRUCTURE

Hours required for MS degree: Recommended: 45; Existing: 50.

Categories for courses and credit hours:

Core courses:	10
Research courses:	6
Specialization	23
Thesis	6
Total	45

Core Courses:

To increase the flexibility as some of the courses do not meet students' learning needs and recognize that some students come in with prior coursework or work experience.

Students will choose 3 of 5 courses offered at SAMP.

1. Allied Health Issues (750)
2. Managerial Leadership in Allied Health (730)
3. Teaching in Allied Medical Professions (753)
4. Leadership in Allied Health (830)
5. Evidence Based Practice (892)

At present two of these courses are offered on alternating years. We decide to offer all of the courses on alternative years, depending on continued enrollment.

Research Courses

Maintain 6 required credits. Students will be required to take one research methods course and then one course on data analysis. The graduate program chair and program manager will work to identify potential research courses. The data analysis course should focus on the type of data analysis that will be used in the thesis, including qualitative. Students who are on Plan B will have the option of taking Evidence Based Practice as the second research course. Additional research classes should be allowed within the Specialization, particularly for pre-PhD students.

Tracks (Specializations)

The committee agreed that the structure for the Specializations can become more fluid. They propose that the specialization consists of 2 courses (5 credits) of academic coursework, a minimum of one practicum (2 credits minimum) and a remainder of coursework to be determined by the track coordinator. This means that up to 16 hours are defined by the track coordinator. The specializations will vary from those that are quite prescribed given accreditation standards (e.g. clinical nutrition) to tracks where students will have the flexibility to identify most of their courses with their advisors' approval. Proposals for the tracks are to come to the Graduate Studies Committee for discussion and approval.

Student Progress and Study Plan Approval

Graduate Studies Committee discussed formal annual review of the Specialization Tracks. This process should help in keeping the track up to date. The review process can be initiated by Lisa Terek who will review the master schedule.

The committee proposes that once a year (spring), advisors will be asked to meet with their advisees to formally review their progress toward degree. The grad studies committee will review the progress of each student and will generate a list of students who should be contacted for making inadequate progress toward degree. These students and their advisors will receive a letter regarding the student's status. This process will be further discussed in the next meeting.

Thesis and non-thesis options

Both the thesis and non-thesis options will remain available to students. Plan B is involves a research project and a comprehensive examination. The research project has not been well defined. Plan B should be redefined to become a rigorous, comprehensive examination without a research project. Plan A will not change. The four chapter/article format will continue to be encouraged.

- *Committee agreed that it was not the intent for Plan B research project to be a thesis proposal without data collection and analysis.*
- *The project could be program development or program evaluation with data collection.*
- *In general, faculty felt that the research project would not promote their own work.*
- *The research project needs to be resolved.*

**PROPOSED ADVANCED PRACTICE MS DEGREE
MUSCULOSKELETAL SYSTEMS EMPHASIS**

I. Core Competency Areas and Courses: 10 credits

AM795A: Introduction to Allied Health Graduate Studies	1 credit
Choose 3 courses from the following list	
AM830: Leadership and Policy in Allied Health	3 credits
AM850: Issues in Allied Health	3 credits
AM730: Managerial Leadership in Allied Health	3 credits
AM753: Teaching in the Allied Health Professions	3 credits
AM892: Evidence Based Practice*	3 credits

*cannot be double counted as a Research Course

II. Research Courses: 6 credits minimum

Courses in 1) research design or methodology and 2) statistics or evidence-based practice

Examples:

- 1) Research design or methodology
 AGR EDUC 885, Research Methods, 3 credits
 AGR EDUC 886, Research Design, 3 credits

- 2) Statistics or Evidence-Based Practice
 AGR EDUC 887 – Analysis and Interpretation of Data, 3 credits
 AGR EDUC 888 – Instrumentation and Procedures for Data Collection, 3 credits
 STAT528 – Data Analysis, 5 credits
 STAT529 – Data Analysis II, 3 credits
 STAT530 – Data Analysis III, 4 credits
 PSYCH 826 – Statistics in Psychology, 4 credits
 PSYCH 827 – Analysis of Variance, 4 credits
 PSYCH 828 – Correlational Analysis, 4 credits
 AM892: Evidence Based Practice, 3 credits

III. Thesis or “Plan B” project – 6 credits minimum

Research thesis

Plan B – Development of clinical practice guidelines or comprehensive case report – with submission for publication

IV. Specialization Credits

A. Advanced Knowledge Courses – 2 courses, 5 credit minimum

PHYSTHER 720, Advanced Concepts in Evaluation and Treatment of the Spine, 3 credits

ALLI MED 895.01 Ph.D. Research Seminar: Skeletal Muscle Structure, Function, and Plasticity, 2 credits
ALLI MED 890 Advanced Topics, Inflammation and Repair, 3 credits
ANAT693- Individual Studies in Anatomy, 2-3 credits
PHYS THER 795 Seminar, 2 credits
PHYS THER 840 Electromyography and Biomechanics in the Control of Human Movement, 3 credits

B. Clinical Practicum: PHYSTHER 889 or ALLI MED 889, 2 credits minimum

C. Electives: 16 credits or less depending on number required to fulfill remaining credits
Must come from at least 2 of the following categories

- 1) Course Work: courses mutually agreed upon by student and advisor
- 2) Teaching Practicum: ALLI MED 889.01, 2 credits minimum
- 3) Journal Club Seminar or Fellows Conference: PHYSTHER 795, 1-2 credits, repeatable up to 6 credits
- 4) Clinical Practicum: PHYSTHER 889 or ALLI MED 889, repeatable up to 14 credits

Summary:

I. Core Competency Areas and Courses: 10 credits

II. Research Courses: 6 credits minimum

III. Thesis or “Plan B” project – 6 credits minimum

III. Specialization Credits

a. Advanced Knowledge Courses – 5 credits minimum

b. Clinical Practicum – 2 credits minimum

c. Electives – 16 or remainder of 45 credits, at least 2 from following

i. Courses

ii. Teaching Practicum

iii. Journal Club Seminar

iv. Clinical Practicum

Total: 45 credits

From: Elliot Slotnick [slotnick.1@gradsch.ohio-state.edu]
Sent: Tuesday, November 06, 2007 5:21 PM
To: Smith, Randy; Tim Watson; Dena Myers; Dutta, Lakshmi
Cc: Case-Smith, Jane
Subject: FW: SAMP request (as promised)
Attachments: request for change in SAMP MS credit hours.doc

Randy,

This proposal from the SAMP reducing the number of required credit hours for their Master's of Science degree was approved by the curriculum processes that we are currently using in the Graduate School to vet curriculum requests (a Committee process with collective review by me and Professors Susan Williams, Melanie Bales, Cathy Montalto and Craig Pederson) while a new system for Graduate Faculty governance is undergoing review by the Senate. Since the proposal reduces the number of required credit hours we are happy to have this applicable to all students, not just those first matriculating in the program. I don't know if this is something you simply wish to report to CAA or whether it requires CAA review. The new degree requirement meets Graduate School standards.

Best,
elliott

From: Elliot Slotnick [slotnick.1@gradsch.ohio-state.edu]
Sent: Tuesday, November 06, 2007 5:14 PM
To: Case-Smith, Jane
Cc: Smith, Randy; Tim Watson; Dena Myers; Dutta, Lakshmi
Subject: Request to move from 50 credit hour to 45 credit hour Master's degree...

Dear Jane,

Apologies for the lengthy time period taken it has taken to approve your request to have the SAMP Master's of Science program reduce its required credit hours from 50 to 45 quarter hours of required credit. As you know, your request arrived in June, well after the final meeting of last year's Curriculum Committee. And, with the current transition from the old Research and Graduate Council to a new Council configuration, necessary curriculum processing was slow to begin. We have now returned to such processing, however, and I am happy to report that your request was approved. I will be forwarding it to Randy Smith for any necessary action by CAA to finalize the processing of your request.

Best,
elliott

June 22, 2007

Elliot Slotnick, PhD
Associate Dean
Graduate School
250 University Hall
230 North Oval Mall
CAMPUS

Dear Elliot,

The School of Allied Medical Professions requests a reduction in the number of credit hours required for the Master of Science degree in Allied Medical Professions. Currently SAMP graduate students must complete 50 graduate credit hours to receive the School's MS degree. This 50 hours included 10 credits of core courses, 6 credits of research method courses, 6 credits of thesis, 20 credits of track courses and 8 credits of electives. We have redesigned our tracks into areas of emphasis that allow more flexibility in the core and track courses. Because we increased the flexibility of the areas of emphasis so that students can design their own learning within broad parameters, we have reduced the 8 credits of electives to 3, enabling the students to graduate with 45 credits, the minimum required by the University.

We arrived at 45 required credit hours for our MS degree for the following reasons:

- We did not feel that it was justified to require more hours than the University requires.
- We now have a PhD program and we would like to efficiently move interested MS students into the PhD program.
- Certain areas of emphasis will require more than 45 hours to complete the coursework; however, we wanted to use the University baseline as the minimum required by the School.

The change in required hours was approved by the Graduate Studies Committee in April 2007 and reviewed, then approved by a majority of the School's Graduate Faculty in May 2007. I would be happy to share the entire proposal for revision of the MS program if additional information is needed. We would like to implement this new rule at the earliest date possible.
Thank you for the review of our proposal.

Sincerely,

Jane Case-Smith, Ed.D., OTR/L
Graduate Studies Chair
School of Allied Medical Professions