

## **Request for Authorization to Establish a Master's Degree in Radiologic Science at UNC-Chapel Hill**

UNC-Chapel Hill requests authorization to establish a Master's Degree in Radiologic Science (CIP 09.0702).

### **Program Description**

The Master's in Radiologic Science will prepare diagnostic radiographers for practice as radiologist assistants. The program will prepare baccalaureate-prepared radiographers to assume greater responsibilities in patient assessment, patient management, fluoroscopy and other radiologic procedures under the direct supervision of a radiologist. Graduates will be qualified for the national certification exam from the American Registry of Radiologic Technologists. The program will be offered in a distance education format to serve working radiologic professionals.

### **UNC Tomorrow Relevance**

The program responds to the UNC Tomorrow major finding (4.5, Our Health) that UNC should lead in improving the health and wellness of all people and communities in our state, including educating more health professionals.

### **Highlights from UNC-GA Data Template**

The US Department of Labor projects that positions for health workers in this job category will increase faster than average over this decade. There is no other similar degree on at a UNC institution. In the last three years, UNC-Chapel Hill has established 3 baccalaureate, 5 master's, and 2 doctoral programs and has discontinued 1 baccalaureate, 6 master's, and 5 doctoral programs.

### **Outcome of Consultation with Disciplinary Panel**

In addition to the UNC-Chapel Hill and UNC-GA participants, faculty members from ECU, UNCC, and WSSU participated in the discussion. Success rates (100% of the certificate students) on the ARRT exam were discussed. There was general agreement that a master's program is needed in the state, not only to provide more health professionals for practice but to provide faculty to teach in community college associate degree programs. In response to a question about the certificate program, it was noted that individuals who have completed the certificate program will be able to enroll in the online program to complete the master's program.

### **Student Demand**

A very successful certificate program indicates there will be a strong demand for this program. There are currently more than 1,200 baccalaureate-prepared radiographers in North Carolina, and the department receives approximately 5 inquiries a week about the availability of a master's program.

### **Opportunities for Graduates of the Program**

Job opportunities are expected to increase greatly due to retirements and the increased workload of radiologists and radiologist assistants. The American Society of Radiologic Technologists has published information regarding the demand for and benefits of the new RA profession:

The average radiologist workload increased by more than 25 percent between 1992 and 2002, from 11,000 procedures per year to nearly 14,000 procedures per year. The radiologist assistant can:

- Relieve the workload of radiologist by performing exams that the radiologist is not always available to perform.
- Increase productivity by freeing up radiologist to perform the more invasive procedures that are not within the RA's scope of practice.
- Improve efficiency by allowing radiologist to spend more time on image interpretation and diagnosis.
- Improve patient access to timely radiologic care by expanding workflow and capacity.

### **Resource Implications**

**Resource needs:** The program will need 1.5 faculty FTE in the first year and a total of 3 new faculty when the program is fully enrolled. Library resources are extensive. Because this will largely be an online program, only limited facility access is needed.

**Resources allocated:** The post-baccalaureate certificate program was developed over a period of two years and provides the basis for expansion into a master's program. Development of the certificate program was partially supported by a grant from the American Society of Radiologic Technologists.

**Estimated cost to the State:** Only ten students will be admitted to the program each year during the program's first years to assure availability of appropriate clinical sites. By the fourth year of the program, 360 student credit hours (Master's, cost category level 3) would result in state appropriation of \$300,127.

### **Recommendation**

It is recommended that the Board of Governors approve UNC-Chapel Hill's request for authorization to establish a Master's Degree in Radiologic Science (CIP 09.0702) contingent upon the availability of funding.

## General Information Template for Academic Program Review

### ***Degree Area and Level:***

Masters in Radiologic Science at UNC-Chapel Hill (CIP 51.0999)

### ***Addressing UNC Tomorrow:***

This proposed degree program directly relates to UNC Tomorrow Recommendation 4.5.2, "UNC should educate more health professionals."

### ***Role of Program in Relation to State and Regional Needs:***

According to the proposal, "The American Society of Radiologic Technologists has published information regarding the demand for and benefits of the new RA profession:

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- Improve efficiency by allowing radiologist to spend more time on image interpretation and diagnosis.
- Improve patient access to timely radiologic care by expanding workflow and capacity."

### ***US Labor Department Analysis:***

- *Summary* – No narrative is provided for this cluster.

### ***Availability of Program Statewide (Enrollment and Degrees Awarded in Last 3 Years):***

- *Public universities* – Not available.
- *Private universities* – Not available.

### ***Available or not from Academic Common Market:***

Not available.

***UNC-Chapel Hill Campus enrollment and degrees awarded in similar programs at the Masters level:***  
(Based on two CIP digits – 51 CIP is the summary group for Health Professions And Related Clinical Sciences under which Radiologic Science is a program)

Enrollment			Academic Year						
			Fall 06	Spr 07	Fall 07	Spr 08	Fall 08	Spr 09	Fall 09
UNC-CH	Audiology/Audiologist and Speech-Language Pathology/Pathologist	MS	52	52	55	55	47	47	49
	Dental Clinical Sciences, General	MS	56	53	65	62	63	60	69
	Dental Public Health and Education	MS	7	6	8	9	8	8	8
	Health/Health Care Administration/Management	MHA	152	172	168	174	182	179	196
		MPH	53	57	60	58	65	84	84
		MSPH	27	24	34	33	38	37	42
	Clinical Laboratory Science/Medical Technology/Technologist	MMDS	N/A	N/A	N/A	N/A	N/A	N/A	4
	Medical Scientist	MSCR	N/A	N/A	N/A	N/A	N/A	3	11
	Public Health/Community	MS	12	9	11	8	N/A	N/A	N/A

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Enrollment		Academic Year						
		Fall 06	Spr 07	Fall 07	Spr 08	Fall 08	Spr 09	Fall 09
Nurse/Nursing								
Nursing, Other	MSN	156	162	160	162	166	178	202
Pharmaceutics and Drug Design	MS	N/A	N/A	N/A	N/A	3	3	7
Public Health, General	MPH	153	141	176	167	200	177	204
Public Health Education and Promotion	MPH	88	85	83	85	82	81	80
Maternal and Child Health	MPH	41	39	38	36	52	46	58
	MSPH	13	11	17	13	7	4	8
Occupational Therapy/Therapist	MS	38	37	45	39	43	42	46
Physical Therapy/Therapist	MPT	48	49	23	22	0	0	0
Vocational Rehabilitation Counseling/Counselor	MS	14	13	20	19	27	26	33
Movement Therapy and Movement Education	MS	0	1	0	0	0	0	1

Number of Degrees Awarded			Academic Year		
			2006-2007	2007-2008	2008-2009
UNC-CH	Audiology/Audiologist and Speech-Language Pathology/Pathologist	MS	22	30	24
	Dental Clinical Sciences, General	MS	16	22	16
	Dental Public Health and Education	MS	2	4	5
	Health/Health Care Administration/Management	MHA	76	45	62
		MPH	33	23	23
		MSPH	10	12	21
	Medical Scientist	MSCR	N/A	N/A	1
	Public Health/Community Nurse/Nursing	MS	2	2	N/A
	Nursing, Other	MSN	58	55	55
	Pharmaceutics and Drug Design	MS	N/A	N/A	2
	Public Health, General	MPH	58	64	85
	Public Health Education and Promotion	MPH	40	50	32
	Maternal and Child Health	MPH	22	19	24
		MSPH	16	9	10
	Occupational Therapy/Therapist	MS	20	17	19
	Physical Therapy/Therapist	MPT	23	25	23
	Vocational Rehabilitation Counseling/Counselor	MS	0	5	6
	Movement Therapy and Movement Education	MS	3	0	0

***Campus Average of enrollment and degrees awarded in this degree area at the Masters level:***  
*(Based on two CIP digits – 51 CIP is the summary group for Health Professions And Related Clinical Sciences under which Radiologic Science is a program - over the last 3 Academic Years, Fall 2006-Fall 2009)*

# APPENDIX X

<b>Campus Average</b>			
	Number of Active Programs	Enrollment per Semester	Degrees Awarded per Year
ASU	3	35	23
ECU	13	71	23
NCCU	1	73	32
NCSU	1	11	6
UNCC	4	74	24
UNC-CH	16	52	22
UNCG	5	84	29
UNCW	1	40	10
WCU	4	57	20
WSSU	5	54	21
Campus Average:		55	21

## ***UNC Chapel Hill Degree Programs added in the past three years:***

- *Bachelor*
  - BA English – joint with the National University of Singapore (03/16/2007)
  - BA Archaeology (09/07/2007)
  - BA Economics – joint with the National University of Singapore (01/11/2008)
- *Master*
  - MS Disaster Management (03/16/2007)
  - MS Neurobiology (11/09/2007)
  - MMDS Molecular Diagnostic Science (06/13/2008)
  - MS Clinical Research (06/13/2008)
  - MA German Studies – joint with Duke University (06/13/2008)
- *Doctoral*
  - PhD Bioinformatics and Computational Biology (11/09/2007)
  - PhD German Studies – joint with Duke University (06/13/2008)

## ***UNC Chapel Hill Degree Programs discontinued in past three years:***

- *Bachelor*
  - BA Russian & East European Studies (03/20/2009)
- *Master*
  - MA Romance Languages and Literatures (03/20/2009)
  - MA Romance Languages and Literatures, Italian Literature (03/20/2009)
  - MA Romance Languages and Literatures, Spanish Literature (03/20/2009)
  - MA Romance Languages and Literatures, Spanish-American Literature (03/20/2009)
  - MA Geological Sciences (05/09/08)
  - MS Speech and Hearing Sciences, Speech and Language Pathology (05/09/08)
- *Doctoral*
  - PhD Romance Languages and Literatures, French Language and Literature (03/20/2009)
  - PhD Romance Languages and Literatures, Italian Language and Literature (03/20/2009)
  - PhD Romance Languages and Literatures, Spanish Language and Literature (03/20/2009)
  - PhD Romance Languages and Literatures, Spanish-American Language and Literature (03/20/2009)
  - PhD Romance Languages and Literatures, Romance Philology (03/20/2009)