Miami Dade College
College-wide CASSC Meeting – JULY 8, 2008
CURRICULUM REPORT #55

1. Natural Science

Add New Course

Course No.	Course Title	Credits	Campus	Eff. Term
AST 1002L	Descriptive Anatomy Lab	1	1,2,3,5,6,7,8	2008-1

Course Description: This is a laboratory course available to students taking the introductory Astronomy course AST1002. Students will learn to obtain astronomically relevant scientific information by performing experiments, exercises or observations. They will learn to measure, collect, and analyze scientific data, to do calculations with the data, and to report their results.

APPROVE_____OPPOSE_____ MORE INFORMATION_____

Change Existing Courses
Course Description/Competencies

Course No.	Course Title	Credits	Campus	Eff. Term
CHM 1020	General Education Chemistry	3	1,2,3,5,6,7,8	2008-1

Course Description: This course provides the non-science major with an introductory study of the substances central to our daily lives. The students will learn the basic chemistry of nutrition, medicines, cosmetics, household cleaners and the environment.

Course No.	Course Title	Credits	Campus	Eff. Term
CHM 1020L	General Education Chemistry Lab	1	1,2,3,5,6,7,8	2008-1

Course Description: This course provides the non-science major with an introductory study of the substances central to our daily lives. The students will learn the basic chemistry of nutrition, medicines, cosmetics, household cleaners and the environment in a laboratory setting.

Course No.	Course Title	Credits	Campus	Eff. Term
CHM 1025	Introductory Chemistry	3	1,2,3,5,6,7,8	2008-1

Course Description: This course will provide beginning students with certain basic knowledge and skills, which will enable them to be successful in the first semester of General Chemistry I, CHM 1045. The students will learn elementary principles of modern chemistry, including basic measurements, chemical bonding, chemical reactions, stoichiometry, concentration of solutions, and chemical nomenclature.

Course No.	Course Title	Credits	Campus	Eff. Term
CHM 1025L	Introductory Chemistry Lab	1	1,2,3,5,6,7,8	2008-1

Course Description: This course is an optional beginning chemistry laboratory course, which has been designed for those students who have little or no background in chemistry and are enrolled in CHM 1025. The students will reinforce what they learn in CHM1025. Students will learn basic measurements, chemical bonding, chemical reactions, stoichiometry, concentration of solutions, and chemical nomenclature.

Course No.	Course Title	Credits	Campus	Eff. Term
CHM 1033	Chemistry for Health Sciences	3	1,2,3,5,6,7,8	2008-1

Course Description: This course emphasizes chemistry topics related to the allied health sciences. Students will learn the essentials of inorganic chemistry, organic chemistry, biochemistry, and their application to physiological functions.

Course No.	Course Title	Credits	Campus	Eff. Term
CHM 1033L	Chemistry for Health Sciences Lab	1	1,2,3,5,6,7,8	2008-1

Course Description: This course emphasizes chemistry topics related to the allied health sciences. Students will learn the essentials of inorganic chemistry, organic chemistry, biochemistry, and their application to physiological functions in a laboratory setting.

APPROVE_____OPPOSE_____ MORE INFORMATION_____

2. Social Sciences
Student Life Skills (SLS)
Change Existing Courses
Course Description/Competencies
Credit Type: From 02 to 01

Course No.	Course Title	Credits	Campus	Eff. Term
SLS 1125	Student Support Seminar	3	1,2,3,5,6,7,8	2008-1

Course Description: This course provides a foundation for gaining knowledge, skills, and attitudes necessary for college success. Students will learn specific social, cultural, psychological, and academic considerations that are known to impact student achievement. Students will also assess their competence in each of these areas, and learn strategies that will improve their overall student effectiveness. (3 hour lecture).

Course No.	Course Title	Credits	Campus	Eff. Term
SLS 1505	College Survival Skills	3	1,2,3,5,6,7,8	2008-1

Course Description: This is an introductory self-discovery course designed to help students make the transition to college. Students will learn the knowledge and skills necessary for success, including knowledge of academic policies and procedures, effective study strategies, and making sound academic and career choices. (1 hour lecture).

Course No.	Course Title	Credits	Campus	Eff. Term
SLS 1510	Preparing for Student Success	3	1,2,3,5,6,7,8	2008-1

Course Description: This course provides an orientation to college life and helps develop academic, career, and personal goals. Students will learn college success strategies, goal-setting, learning style assessments, as well as general and discipline-specific study skills in the context of various theoretical, practical, and experiential perspectives. (3 hour lecture)

APPROVE_____OPPOSE_____ MORE INFORMATION_____

3. School of Architecture and Interior Design

Course Classification
Change Existing Courses
Credit Type: From 02 to 01
Effective Term: 2008-1
Campus: 1, 2, 3

IND 1020 Interior Design 1
IND 1200 Interior Design 2
IND 2210 Interior Design 3
IND 2220 Interior Design 4
IND 1100 History of Interiors 1
IND 1130 History of Interiors 2

APPROVE_____OPPOSE_____ MORE INFORMATION_____

4. School of Allied Health

BAS – Health Science

A. Executive Summary

Introduction

The Miami Dade College, School of Allied Health Technologies is proposing a Bachelor of Applied Science in Health Science degree (BAS-HS) with specific curricular options. The allied health field is comprised of healthcare providers who are not doctors or nurses. The School of Allied Health Technologies currently offers 15 Associate of Science degrees, each with individual accrediting agencies. Due to the complexity of the specific health professions curricula and the specific standards set by individual accreditation agencies, certification agencies and state licensure requirements, it is necessary to develop an umbrella degree (the Bachelor of Applied Science – Health Science) with individual curriculum plans. Eighteen allied health specialties are offered at Miami Dade College at the associate degree level. The first curriculum option proposed is Physician Assistant Studies. Additional allied health Associate of Science programs such as Clinical Laboratory Science may also lead to options with the BAS-HS program.

Of the 30 fastest growing occupations in the labor market, more than half are in the allied health field (Bureau of Labor Statistics, Occupational Outlook Handbook, 2006). The State of Florida has postulated a 16% (35,150) increase in Region 23 jobs in the allied health education and health services sector by the year 2015 (Florida Research and Economic Data Base, http://fred.labormarketinfo.com retrieved 12/6/2007). According to the U.S. Department of Labor, 60 percent of the American healthcare workforce is made up of allied health professionals (Bureau of Labor Statistics, Occupational Outlook Handbook, 2006). The allied health provider shortage is predicted to reach 1.6 million to 2.5 million allied health workers by 2020 (Bureau of Labor Statistics, Occupational Outlook Handbook, 2006). Ensuring the availability of enough qualified health professionals has proven to be a concern for lawmakers of all levels of government to address the critical shortage of workers in the allied health professions (Allied Health Reinvestment Act (S. 2491, http://cantwell.senate.gov/news/record, retrieved February 5, 2008). The proposed baccalaureate degree will provide a continuum of technical, supervisory, and management

skills above and beyond the allied health Associate of Science degrees that are currently offered. According to the Bureau of Labor Statistics, for the month of December 2007, the healthcare sector added 28,000 jobs; annually in 2007, healthcare added 381,000 jobs, accounting for 1 out of every 3 private sector jobs added.

Planning and Implementation

The projected start date for the proposed BAS in Health Science degree with an option in Physician Assistant Studies is January of 2010. Beginning Fall 2006, the School of Allied Health Technologies (faculty, staff, and administrators) conducted a year-long Force Field Analysis which identified the need for baccalaureate education in order to satisfy the workforce demands for entry level and upward mobility in the health sciences. Furthermore, through its Advisory Committees, the School of Allied Health Technologies surveyed several hundred current employers and program graduates. The results of these surveys corroborated the need for baccalaureate education in the health sciences. In November 2007, committees were established to research and develop the curriculum and write the Executive Summary.

Workforce Needs/Demands for a BAS in Health Science with an Option in Physician Assistant Studies

Miami Dade College is a leading innovator of health care workforce solutions, regionally, nationally, and internationally. In 2010, the proposed entry level requirement for the Physician Assistant profession will be the baccalaureate degree as outlined in section A1.01 of the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). The documents states: "the sponsoring institution must be accredited by a recognized regional or specialized and professional accrediting agency to award graduates of the Physician Assistant program a baccalaureate or higher degree." The proposed BAS-HS degree with an option in Physician Assistant Studies will comply with the 2010 accreditation mandate and will add a new educational option for Region 23 that provides quality, accessible, and affordable health sciences education at the baccalaureate level. Physician Assistants (PAs) are health care professionals licensed to practice medicine with physician supervision. They are highly skilled health care professionals, trained to provide patient evaluation, education, and health care services (Physician Assistant Committee, 2002, and AAPA, 2005). The employment of PAs is expected to grow much faster than the average (27% or more) for all occupations through the year 2014 due to anticipated expansion of the health services industry and an emphasis on cost containment, resulting in increased utilization of PAs by physicians and health care institutions (Bureau of Labor Statistics, Occupational Outlook Handbook, 2006).

In South Florida there are 253 estimated annual jobs openings for Physician Assistants: 182 due to growth and 71 due to replacement (Choices Planned of Bridges Transitions Inc., 2005). A primary goal of the Miami Dade College BAS-HS (with an option in PA) degree is to prepare primary care providers to meet the workforce needs in urban communities and the proposed program will assist in providing and sustaining a healthcare workforce that represents the ethnic diversity of Region 23. The current Associate in Science PA program at Miami Dade College serves a predominately minority student population in South Florida and the 2004 graduating class was comprised of 78% mostly minority students. These students would not otherwise have the opportunity to become primary healthcare providers due to cost prohibitive barriers. From the years 2001 through 2004 the program graduated 175 students. Of the 175 graduates only 13 (7%) currently practice outside of Florida (MDC PA Accreditation Self Study, 2005). The State of Florida ranks 5th (5.2%) in the United States with the largest numbers of clinically practicing PAs (2002 AAPA Physician Assistant Census Report). The BAS-HS will provide Region 23 with qualified minority graduates in Physician Assistant Studies.

The results of a recent survey of over 3,000 foreign medical graduates conducted by Miami Dade College in November, 2007 revealed that more than 1,200 (40%) were interested in enrolling in a baccalaureate program in Physician Assistant Studies, if offered at the College. An analysis of a Survey of Foreign Medical Graduates is attached as Appendix Two. The proposed Bachelor of Applied Science-HS degree with an option in Physician Assistant Studies will be the only publicly funded PA program in South Florida, Region 23, and the only associate/baccalaureate PA program in the State of Florida. The current AS PA program currently has more than 100 affiliation agreements with health care facilities throughout the service community, and it is expected that this number will continue to increase as the program expands and health related organizations and businesses seek to develop relationships with the program. One hundred percent of the graduates from the AS program are employed upon certification with 85% of graduates employed within Region 23. This trend is very likely to continue with the implementation of the BAS-HS.

The implementation of the proposed BAS-HS will align with the Florida Department of Education K-20 Strategic Plan supporting workforce healthcare education programs with the skill requirements and entry level qualifications of the market place. Additionally, the proposed BAS-HS is expected to increase the quantity and quality of affordable educational options that will yield an increase in the number of health care practitioners. The implementation of the Bachelor of Applied Science in Health Science degree with an option in Physician Assistant Studies will help bridge the followings gaps in healthcare workforce shortages as documented by the American Hospital Association (American Hospital Association, Health and Hospital Trends, 2006):

- Provide graduates with specialized skills and the educational credentials that are required by national, state, professional and other accreditation agencies.
- Provide a pool of qualified applicants that is large enough to fill the vacant positions that are becoming available due to employee retirement.
- Provide a cadre of ethnically diverse and culturally competent physician assistants.

Academic Content and Curriculum

The academic content and curriculum of the proposed Bachelor of Applied Science – Health Science degree with an option in Physician Studies is designed to incorporate the associate-level Physician Assistant Studies standards set forth by the ARC-PA. The BAS-HS degree will consist of 133 credit hours.

Table One: Curriculum Plan – BAS -HS degree with an option in Physician Assistant Studies
General Education Required Courses……..…36 credit hours Lower Division Natural Science Core……..…..11 credit hours Lower Division PA (discipline specific)……56 credit hours Interdisciplinary Upper Division Core……18 credit hours Advanced PA Option…..…….…... 12 credit hours **TOTAL……..…..…….……..*133 credit hours** **co and pre-requisite courses for microbiology are not part of the total credit calculations and are under discussion with the natural sciences.*

Assessment of Current and Anticipated Resources

To meet the projected enrollment of 60 students in the BAS-HS with an option in Physician Assistant Studies, additional staff and equipment/software resources will be needed. The Campus currently has adequate classrooms and laboratories to meet the associate degree program needs; all classrooms are presently equipped with adequate instructional technology. The program has committed laboratory space for the physical diagnosis and clinical skills lab sessions. However, offices will be needed to accommodate two full-time faculty members and one staff person upon the implementation of the BAS-HS. A computer learning center with an assigned computer specialist is available to serve the current enrollment and to assist all faculty members with computer software training and implementation as well as strategies to enhance classroom presentations. With the anticipated increased enrollment and upper-division coursework, additional computer software and hardware will be necessary. Interactive patient management problem-based cases are available to the faculty and the students. The use of the human patient simulator is available to faculty and students for regularly scheduled classes as well as for small group or individual sessions. The campus library has multiple learning resources available to support the present curriculum; however, an expanded number of library resources is projected to facilitate baccalaureate-level education. The Student Success Center currently provides services to individualize the learning process and promote faculty and student success in the development of academic, vocational and personal goals by integrating human and technological based resources that extend beyond the classroom arena. Additional staffed hours will be required to administer and support the increased class size and courses for the BAS-HS. The proposed Budget Plan reflects the need for these additional resources: full and part-time faculty assistant administrator, additional support staff including an instructional designer, library resources, informational technology equipment, laboratory equipment, and renovated laboratory space. The proposed Budget Plan estimates a 2009-10 implementation cost of $512,964 of which $421,257 will be offset by Baccalaureate Degree Grants, and resident student fees, bringing the total first year expense to $91,707. The program is projected to break even in 2010-11 and to generate excess funds in the amount of $82,843 by 2011-2012.

BAS-HS with an option in Physician Assistant Studies Program Sheet

Course	Course Title	Credits	Pre-/Co-Requisites
LOWER DIVISION REQUIREMENTS			
General Education:			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	Pre-Req ENC 1101
Oral Communication – 3 Credits Required			
SPC 1026	Fundamentals of Speech Comm.	3	
Humanities – 6 Credits Required			
Group A			
HUM 1020	Humanities (Recommended)	3	
AND			
Group B –			
PHI 2604 (Recommended)	Critical Thinking/Ethics	3	Pre-Req ENC 1102
Behavioral and Social Science – 6 Credits Required			
Group A –			
CLP 1006 (Recommended)	Psychology of Personal Effect	3	
AND			
Group B –			
ECO 2013 (Recommended)	Principles of Economics (Macro)	3	
Natural Science – 6 Credits Required			
Group A			
BSC 2085	Human Anatomy & Physiology 1	3	Co-Req BSC 2085L-1
AND			
Group B –			
CHM 1033 (Recommended)	Chemistry for Health Sciences	3	
Mathematics – 6 Credits Required			
MAC 1105 (Recommended)	College Algebra	3	
STA 2023 (Recommended)	Statistical Methods	3	

General Education Elective – 3 Credits Required

MCB 2010L (Recommended)	Microbiology Lab	2	
BSC 2085L (Recommended)	Human Anatomy & Physiology 1	1	Co-Req: BSC 2085

LOWER DIVISION NATURAL SCIENCE CORE 11 Credits Required

BSC 2086	Human Anat and Physiology 2	3	Co-Req: BSC 2086L
BSC 2086L	Human Anat and Physiology 2 Lab	1	Co-Req: BSC 2086
BSC 2010	Principles of Biology 1	3	
MCB 2010	Microbiology	3	
CHM 1033L	Chemistry for Health Science Lab	1	

LOWER DIVISION DISCIPLINE SPECIFIC REQUIREMENTS- 56 Credits

PAS 1800C	Physical Diagnosis I	2
PAS 1812	Behavioral&Community Medicine I	1
PAS 1831	Clinical&Diagnostic Imaging	1
PAS 1823	Principles of Pharmacology I	2
PAS 1822C	Electrocardiography/Cardiology	2
PAS 1813	Pathophysio Phys of Disease I	2
PAS 1801C	Physical Diagnosis II	2
PAS 1821	Behav & Community Medicine II	1
PAS 1811	Introduction to Medicine I	5
PAS 1830	Pharmacotherapeutics	4
PAS 1824	Pathophysio Basis of Disease II	2
PAS 1820	Introduction to Medicine II	5
PAS 1810C	Surgical Problems and Proced	5
PAS 2841L	Geriatrics	2
PAS 2842L	Psychiatry	2
PAS 2866L	Family Medicine	4
PAS 2840L	Internal Medicine	4
PAS 2860L	Pediatrics	2
PAS 2870L	Obstetrics/Gynecology	2
PAS 2850L	Surgery	4
PAS 2876L	Emergency Medicine	2

UPPER DIVISION COURSES – 30 Credits Required

Interdisciplinary Core Health Science Studies - 18 credits

HSC 3057	Intro to Research Meth in Healthcare	3
HSC 3243	Teaching Skills for Health Prof.	3
HSC 3231	Client Education in Health Care	3
HSC 3720	Alternative Medicine Strategies	3
HSC 4XXX	Community Service Learning Pract.	3
HSC4XXX	Leadership/Manag Health Prof.	3

Advanced PA Option – 12 credits

PAS 4XXX	Contemp Issues Physician Assistant	3
PAS 4XXX	Physician Assistant Pract. Manage.	3
PAS 4XXX	Physician Assistant Capstone Course	6

Computer Competency: By the **16th earned** college level credit (excluding EAP and college preparatory courses), a student **must take** the Computer Competency Test and pass

Or

By the **31st earned** college level credit (excluding EAP and college preparatory courses), a student **must pass** CGS 1060, an equivalent continuing education or vocational credit course or retest with a **passing score on the Computer Competency Test**.

Foreign Language: Students admitted to the baccalaureate degree program without meeting the foreign language admission requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation.

Additional Information: Students entering with an AS or AAS degree may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

A minimum cumulative grade point average of 2.0 and a minimum of 2.5 grade point average in discipline specific course work is required for graduation.

Students must successfully complete a minimum of 30 semester hours of 3000-4000 level course work.

Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements rests with the student.

BAS Health Science

New Courses:

Course No.	Course Title	Credits	Campus	Eff. Term
HSC 4xxx	Physician Assistant Capstone	6	4	2009-2

Course Description: This course is designed for students to express the knowledge, skills and abilities they have gathered throughout the program by identifying and presenting a challenge to healthcare since hospitals and health systems are recognized as among the most intricate organizations in the world.

Course No.	Course Title	Credits	Campus	Eff. Term
HSC 3231	Client Education in Health Care	3	4	2009-2

Course Description: This course is a 3 credit hour course which is designed to enable the student to develop and deliver health education to diverse populations in multiple settings

Course No.	Course Title	Credits	Campus	Eff. Term
HSC 4xxx	Community Service Learning Practicum	3	4	2009-2

Course Description: This is a 3 credit hour course which is designed to engage students in community service learning activities. Student will function as a member of a community service organization: planning, community education, resource development, volunteer, recruitment, management, public relations and fundraising. Working in conjunction with a local community service agency, teams of students will design and implement projects related to the agency's primary service mission.

Course No.	Course Title	Credits	Campus	Eff. Term
HSC 3720	Complementary & Alternative Medicine Strategies	3	4	2009-2

Course Description: This is a 3 credit hour course which provides guidelines and resources for a basic introduction to the various medicines practiced around the world and are collectively referred to as complementary and alternative medicines (CAM). Epidemiology, usage, and terminology are emphasized

Course No.	Course Title	Credits	Campus	Eff. Term
PSA 4xxx	Contemporary Issues for the PA	3	4	2009-2

Course Description: This course is a survey of current issues in healthcare delivery. Students will examine changing trends and the changing role of the clinician in the delivery of healthcare.

Course No.	Course Title	Credits	Campus	Eff. Term
HSC 3057	Intro. Research Methods in Health Care	3	4	2009-2

Course Description: This course will provide an overview of research methods used in healthcare. Emphasis will be placed on research strategies, evaluation of research literature, research design and application in the clinical setting.

Course No.	Course Title	Credits	Campus	Eff. Term
HSC 4XXX	Leadership and Management in Health	3	4	2009-2

Course Description: This 3 credit hour course is designed to provide an overview of individual leadership styles. Students will identify the characteristics of effective leaders and will develop personal goals and strategies for becoming a stronger and more effective leader of healthcare teams.

Course No.	Course Title	Credits	Campus	Eff. Term
PSA 4xxx	Physician Assistant Practice Management	3	4	2009-2

Course Description: This course is a 3credit hour course designed to assist the PA in understanding and applying the principles of management related to the management of a primary care practice. The concepts of patient/client, office and medical team management will be explored.

Course No.	Course Title	Credits	Campus	Eff. Term
HSC 3243	Teaching Skills for Health Care	3	4	2009-2

Course Description: This course is a 3 credit hour course which is designed to expose students the foundational principles and practices of subject matter design, implementation and assessment as it pertains to healthcare education.

APPROVE_____ OPPOSE_____ MORE INFORMATION_____

Radiation Therapy Course Sequencing

Miami Dade College
Medical Center Campus
School of Allied Health Technologies
Changes in Program Course(s)
Executive Summary Sheet
May 08, 2008

Program: RADIATION THERAPY TECHNOLOGY

CURRENT PROGRAM COURSE(S)				
Course Number	**Course Title**	**Credits**	**Current Offering:** (include information related to changes that will be made in course offering)	**Change In Offering:** (Indicate change to be made and rationale for change)
MGF 1106(delete) Add MAC 1105	**Math for Liberal Arts I**	**3**	**Course offered as 3.0 credit course in the RAT program**	**In an effort to align with the admission requirements of the other Imaging programs, the course MGF 1106 will be replaced with MAC 1105 in program 23058 Radiation Therapy.**
RTE 1000(delete)	**Orientation to Radiologic Tech.**	**2**	**Course offered as 2.0 credit course in the existing RAT program 1st semester.**	**Course credits for this course now moved to RAT 1804L to maintain degree credit hours. RAT 1804L with the addition of these two credits now becomes a 5 credit course.**
RAT 1242(delete)	**Clinical Oncology & Pathology**	**2**	**Course offered as a 2.0 credit course in the existing RAT program 4th semester.**	**Course credits for this course will now be split between RAT 1657 (1 credit) making it now two credits and 1 credit to RAT 1804L making it now 5 credits.**
RAT 1657 (Modify)	**Radiation Protection & Quality Assurance**	**2 (was 1)**	**Course is currently offered as a 1.0 credit course in the existing RAT program.**	**Course will now be increased to 2 credits with 1 credit coming from RAT 1242.**
RAT 1804L (Modify)	**Clinic 1**	**5 (was 2)**	**Course is currently offered as a 2.0 credit course in the existing RAT program.**	**Course will now be increased to 5 credits with 1 credit coming from RAT 1242 & 2 credits coming from RTE 1000.**

NARRATIVE DESCRIPTION OF PROGRAM RE-SEQUENCING and ADDITION OF CERTIFICATE PROGRAM

1. As a result of the Radiation Therapy (program code # 23058) Interim Report submitted in June, 2007, and the subsequent Action Plan to increase retention and the program's credentialing exam pass rates, the program is making the changes in its curriculum as described.
In addition to the changes described above, the program has re-sequenced all of the courses in the curriculum to better meet the educational needs of the students in a manner that makes use of the course and their pre and co requisites. This re-sequencing is shown in its entirety on the program sheet (curriculum guide).

2. The program wishes to add a certificate option for students that are Registered Radiologic Technologists and desire to expand their education into the field of Radiation Therapy. A new program sheet will be submitted for CIP 1317020903 (CCC). A new program code is needed since the old Program Code was retired. The certificate program correlates to the second (2nd) year of the AS Radiation Therapy program (CIP for AS program is 1317020901). The RAT Certificate students will also take two courses in their first semester with the freshman class to round out the curriculum. We have seven students ready to register for 2008-1 for the Certificate Program. Last year we referred at least seven students to BCC.

Aside from the course changes described above, there are no other course/program changes.

*** NEEDS ANALYSIS:**

The population that will be taking the certificate program are Registered Radiographers already working in the clinical setting as licensed radiographers and wish to make themselves more employable by attaining dual certification. Because there will only be a few students (est. 5-10 students per year will be added to supplement attrition in the A. S. Program) that will fall into this category each year, the program has been designed to meld into the 2nd year of the AS degree program, plus in their first semester they would take two courses with the freshman class in the fall (see attached curriculum guide and Excel spreadsheet).

The most recent Florida Workforce targeted occupations list available indicates a need for Radiation Therapists that will increase at an average rate of 2.5% through 2015 (www.fred.labormarketinfo.com), and an overall percentage increase of 19% by 2015. This particular population is not statistically reported individually on the targeted occupations list, as all radiographers are listed as one group (*Florida Agency for Workforce Innovation, Labor Market Statistics).*

Currently, the program has 7 potential students on a waiting list. Because the students would be supplementing the AS degree courses, no additional faculty, classrooms, or any other resources will be required. They will progress through the program along with the AS students, during the AS degree second year.

The Radiation Therapist Specialist Certificate program would provide a career ladder for current Radiologic Technologists, while assisting in filling the ongoing need for licensed professionals in this area. This will provide a service to the profession while increasing the salaries of the group. The increase in salary for this group would be approximately $9/hour (www.fred.labormarketinfo.com) and, because employers prefer to hire radiographers with more than one specialty and certification, the employers' needs would be met.

Currently, there are three (3) Radiation Therapy Specialist Certificate programs in the state of Florida (www.fred.labormarketinfo.com) and they are:

a. **Broward Community College**
b. **Florida Community College at Jacksonville**
c. **Hillsborough Community College**

In the past we had to refer potential students to other schools who had certificate programs after MDC'S Certificate Program had been closed. This is revenue, much of which is generated by out of state students who are willing to pay the out of state rate and is revenue that could remain at MDC.

This group has proven they can succeed through a rigorous program and would provide increased retention rates for the program, as well as improved pass rates for graduates taking the certification exam upon graduation. In addition, they would supplement the program on a regular basis for any attrition experienced during the first year of the AS degree.

Change Existing Program

Title: Radiation Therapy Program
Program Code: 23058
Number of Credits: 77
Campus: 4
Effective Term: 2008-1

Add Courses	**Delete Courses**
MAC 1105	MGF 1106
	RAT 1242
	RTE 1000

Removal of Prerequisite & Co-requisite RAT 1242 from the following courses:

RAT 1619	Elements of Treatment Planning
RAT 1814L	Clinic 2
RAT 2022	Principles & Practices of Radiation Therapy 2
RAT 2241	Radiobiology
RAT 2243	Clinical Oncology & Neoplasms
RAT 2618	Radiation Therapy Physics 2

APPROVE_____OPPOSE_____ MORE INFORMATION_____

Change Existing Courses:

Course Number: RAT 1657

Course Title: Radiation Protection & Quality Assurance
Course Description: The student will learn to present basic principles of radiation protection and safety in radiation therapy. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies, and health care organizations are included. Specific responsibilities of the radiation therapist are discussed, examined and evaluated. (2 hr. lecture)
Number of Credits: from 1 to 2
Campus: 4
Effective Term: 2008-1

Course Number: RAT 1804L
Course Title: RAT Clinic I
Course Description: Students will learn radiation therapy procedures in a local radiation therapy department. Students are closely supervised by certified radiation therapy technologists as they are introduced to record-keeping and treatment units. (240 hr. clinic)
Number of Credits: from 2 to 5
Campus: 4
Effective Term: 2008-1

Add New Program
College Credit Certificate
Title: Radiation Therapy Specialist
Program Description: The Radiation Therapy Specialist program prepares students that are Registered Radiologic Technologists to function as Radiation Therapists. The Radiation Therapist is a key member of a professional team using various forms of radiation to treat cancer. The program will allow radiography professionals to specialize in the area of Radiation Therapy.
Number of Credits: 43
Campus: 4
Effective Term: 2008-1

APPROVE_____OPPOSE_____ MORE INFORMATION_____

5. School of Education

Changes to the BS in Chemistry and Earth Space

Change Existing Program

Title:	Secondary Science Education-Chemistry
Program Code:	S4101
Number of Credits:	from 118 to 120
Campus:	1,2,3,5,6,7,8
Effective Term:	2008-1

Add Courses	**Delete Courses**
CHM 3610	EDF 3111
EDG 3321	EDG 3410
EDG 3411	EEX 3010
EEX 3071	CHM 4604
EME 3410	CHM 4604L
ISC 4535	GLY 1010
PHY 1025	RED 3352
PSC 1515	SCE 3863
RED 3013	SCE 4943

Changes Existing Courses

Course Description

Course No.	**Course Title**	**Credits**	**Campus**	**Eff. Term**
CHM 3120	Introduction to Analytical Chemistry	3	1,2,3,5,6,7,8	2008-1

Course Description: This course expands and deepens the student's knowledge of the theories, calculations, and methodologies used in analytical chemistry. Students will learn about acid-base equilibria and titrations; precipitation and complex formation; electrochemistry; oxidation-reduction; spectrophotochemical analytical methods; chromatographic techniques; statistical treatment of data; and sampling methods.

Course No.	**Course Title**	**Credits**	**Campus**	**Eff. Term**
CHM 3120L	Introduction to Analytical Chemistry Laboratory	2	1,2,3,5,6,7,8	2008-1

Course Description: This is a laboratory course that expands and deepens the student's knowledge of the theories, calculations, and methodologies used in analytical chemistry. The students will learn to conduct experiments that will introduce them to various laboratory methods used to analyze and quantify representative samples.

Course No.	**Course Title**	**Credits**	**Campus**	**Eff. Term**
CHM 3610	Intermediate Inorganic Chemistry	3	1,2,3,5,6,7,8	2008-1

Course Description This course expands and deepens the student's knowledge of general inorganic chemistry. Students will learn about bonding theories, nuclear chemistry, coordination chemistry, chemical periodicity, qualitative analysis, and metal and nonmetal chemistry.

Miami Dade College

Science Education -Chemistry

Program Comparison

Current Program 118 Credits	Revised Program 120 Credits
Lower Division (67 credits)	Lower Division (60 credits)
Communication: (6 credits) ENC1101 ENC1102	**Communication: (6 credits)** ENC1101 ENC1102
Oral communication: (3 credits) LIT2480 or SPC1026	**Oral communication: (3 credits)** Oral Communications Requirements
Humanities: (6 Credits) Humanities (Group A) Humanities (Group B)	**Humanities: (6 Credits)** Humanities (Group A) Humanities (Group B)
Social Science: (12 Credits) PSY2012 AMH2010 or AMH2020 DEP2000 Diversity Requirement	**Social Science: (6 Credits)** Social Science (Group A) DEP2000 Recommended Social Science (Group B)
Natural Science: (27 Credits) BSC2010 BSC2010L BSC2011 BSC2011L CHM1045 CHM1045L CHM1046 CHM1046L CHM2200 **(MOVED to B.S. Requirement)** CHM2200L**(MOVED to B.S. Requirement)** GLY1010 **(REMOVED)**	**Natural Science: (19 Credits)** BSC2010 BSC2010L BSC2011 BSC2011L CHM1045 CHM1045L CHM1046 CHM1046L PSC1515 **(ADDED)**
Mathematics: (9Credits) MAC1105 or above (6 credits) MTG2204	**Mathematics: (6 Credits)** MAC1105 or above (6 credits)
Computer Competency: (4 credits) CGS1060	**Computer Competency: (0-4 credits)** CGS1060 or Exam
Program Pre-requisites: (12 Credits) EDF1005 EDG2701 EME2040 EEX2000	**Program Pre-requisites: (14 Credits)** EDF1005 EDG2701 EME2040 EEX2000 EME3410 **(NEW)**
Electives: (0 Credits)	**Electives: (0 Credits)**

Upper Division (51credits)	Upper Division (60 credits)
Professional Education Core: (18 credits)	**Professional Education Core: (18 credits)**
EDF3111: Human Development & Learning **(REMOVED)** →	EDG3321: General Teaching Skills **(ADDED)**
EDF4430: Measurement Evaluation & Assessment in Education. →	EDF4430: Measurement and Assessment in Education
EDG3410: Classroom Management and Communication K-12 **(REMOVED)** →	EDG3411: Classroom Management for Regular and Exceptional Students **(ADDED)**
EEX3010: Nature & Needs of Exceptional Students **(REMOVED)** →	EEX3071: Teaching Exceptional and Diverse Populations in Inclusive Settings **(ADDED)**
RED3352: Reading in the Content Area **(REMOVED)** →	RED3013:Foundations of Reading Instruction **(ADDED)**
TSL4324C:ESOL Strategies for Content Area Teachers →	TSL4324C:ESOL Strategies for Content Area Teachers
Content Discipline: (21 credits)	**Chemistry Content Discipline: (21 credits)**
BCH3023: Intro. to Biochemistry →	BCH3023: Intro. to Biochemistry
BCH3023L: Intro to Biochemistry Lab	BCH3023L: Intro to Biochemistry Lab
	CHM2200: Survey of Organic **(MOVED from A.A.)**
	CHM2200L: Survey of Organic Lab **(MOVED from A.A.)**
CHM3120: Introduction to Analytical Chemistry →	CHM3120: Introduction to Analytical Chemistry
CHM3120L: Introduction to Analytical Chemistry Lab	CHM3120L: Introduction to Analytical Chemistry Lab
CHM4604: Inorganic Chemistry of Secondary Teachers **(REMOVED)** →	CHM3610: Advanced Inorganic Chemistry **(ADDED)**
CHM4604L: Inorganic Chemistry of Secondary Teachers Lab **(REMOVED)**	ISC4535: Authentic Inquiry in the Science **(NEW)**
	PHY1025: Basic Physics **(ADDED)**
Science Education Content Discipline: (6 credits)	**Science Education Content Discipline: (9 credits)**
SCE4362: Methods of Teaching Science 1 →	SCE4362: Methods of Teaching Science
SCE4363: Methods of Teaching Science 2 →	SCE4363: Advanced Topics in Science Education Practicum
	SCE 3863: Teaching and Learning the Nature of Science **(NEW)**
Internship: (12 credits)	**Internship: (12 credits)**
SCE4945:Student Teaching/Science Education Internship and Seminar → ↘	SCE4945:Student Teaching/Science Education Internship
	SCE4943: Science Education Seminar **(NEW)**

APPROVE_____OPPOSE_____ MORE INFORMATION_____

Change Existing Program

Title:	Secondary Science Education-Earth and Space
Program Code:	S4102
Number of Credits:	from 128 to 120
Campus:	1,2,3,5,6,7,8
Effective Term:	2008-1

Add Courses	**Delete Courses**
AST 4045	AST 1002
BSC 1005	BSC 2010
EDG 3321	BSC 2010L
EDG 3411	BSC 2011
EEX 3071	BSC 2011L
EME 3410	EDF 3111
GLY 1010L	EDG 3410
GLY 1100	EEX 3010
GLY 1100L	GLY 3171
GLY 4700C	GLY 3884
ISC 4535	
PHY 1025	

Changes Existing Course
Course Number, Description & Title

Course No.	**Course Title**	**Credits**	**Campus**	**Eff. Term**
GLY 4045	Moons, Planets, and Meteors	3	1,2,3,5,6,7,8	2008-1
To				
AST 4045	Planetary Geology			

Course Description The student will explore both modern and historical views on the origins of meteorites, the moon, the planets, and other bodies of the solar system. The student will learn the importance of space science as a tool in the study of earth science and the importance of earth science as a tool in the exploration of the universe is discussed.

Course No.	**Course Title**	**Credits**	**Campus**	**Eff. Term**
GLY4700	Geomorphology	3	1,2,3,5,6,7,8	2008-1
To				
GLY4700C	Geomorphology			

Course Description This course is a study of planetary surfaces and processes that create landforms. The student will focus on survey of geomorphic forms and the processes that originated them, application of remote sensing and GIS/GPS technology to study geomorphologic processes, analytical skills including field experience, and practical applications, especially to geological hazards.

Course No.	Course Title	Credits	Campus	Eff. Term
MET3702	General Meteorology	3	1,2,3,5,6,7,8	2008-1

Course Description This course will cover general knowledge in meteorology. The student will learn about the atmospheric structure and composition, weather and circulation systems, physics of atmospheric processes; as well as global climate and climate change and their impact on human activities.

Add New Courses

Course No.	Course Title	Credits	Campus	Eff. Term
GLY1100	Historical Geology	3	1,2,3,5,6,7,8	2008-1

Course Description This is a historical based course in geology. The student will learn about the history of the earth, the evolution of life, radiometric dating, and the history of modern geologic ideas on earth development.

Course No.	Course Title	Credits	Campus	Eff. Term
GLY1100L	Historical Geology Laboratory	1	1,2,3,5,6,7,8	2008-1

Course Description A laboratory course designed to accompany GLY1100 in the study of the History of the Earth. The student will learn the fundamentals of fossil identification, evolution, calculation of radiometric dates, interpretation of the stratigraphic record, and the role of plate tectonics in the evolution of life.

Science Education –Earth and Space Science
Program Comparison

Current Program 128 Credits	Revised Program 120 Credits
Lower Division (84 credits)	Lower Division (60 credits)
Communication: (6 credits) ENC1101 ENC1102	**Communication: (6 credits)** ENC1101 ENC1102
Oral communication: (3 credits) LIT2480 or SPC1026	**Oral communication: (3 credits)** Oral Communications Requirements
Humanities: (6 Credits) Humanities (Group A) Humanities (Group B)	**Humanities: (6 Credits)** Humanities (Group A) Humanities (Group B)
Social Science: (12 Credits) PSY2012 AMH2010 or AMH2020 DEP2000 Diversity Requirement	**Social Science: (6 Credits)** Social Science (Group A) DEP2000 Recommended Social Science (Group B)
Natural Science: (32 Credits) BSC2010 **(REMOVED)** BSC2010L **(REMOVED)** BSC2011 **(REMOVED)** BSC2011L **(REMOVED)** CHM1045 CHM1045L CHM1046 CHM1046L GLY1010 AST1002 **(REMOVED)** MET1010 **(REMOVED)** OCE1001 **(REMOVED)**	**Natural Science: (19 Credits)** BSC1005 **(ADDED)** CHM1045 CHM1045L CHM1046 CHM1046L GLY1010 GLY1010L **(ADDED)** GLY1100 **(ADDED)** GLY1100L **(ADDED)**
Mathematics: (9Credits) MAC1105 or above (6 credits) MTG2204	**Mathematics: (6 Credits)** MAC1105 or above (6 credits)
Computer Competency: (4 credits) CGS1060	**Computer Competency: (0-4 credits)** CGS1060 or Exam
Program Pre-requisites: (12 Credits) EDF1005 EDG2701 EME2040 EEX2000	**Program Pre-requisites: (14 Credits)** EDF1005 EDG2701 EME2040 EEX2000 EME3410 **(NEW)**
Electives: (0 Credits)	**Electives: (0 Credits)**

Upper Division (44 credits)	Upper Division (60 credits)
Professional Education Core: (18 credits)	**Professional Education Core: (18 credits)**
EDF3111: Human Development & Learning **(REMOVED)**	EDG3321: General Teaching Skills **(ADDED)**
EDF4430: Measurement Evaluation & Assessment in Education.	EDF4430: Measurement and Assessment in Education
EDG3410: Classroom Management and Communication K-12 **(REMOVED)**	EDG3411: Classroom Management for Regular and Exceptional Students **(ADDED)**
EEX3010: Nature & Needs of Exceptional Students **(REMOVED)**	EEX3071: Teaching Exceptional and Diverse Populations in Inclusive Settings **(ADDED)**
RED3352: Reading in the Content Area **(REMOVED)**	RED3013:Foundations of Reading Instruction **(ADDED)**
TSL4324C:ESOL Strategies for Content Area Teachers	TSL4324C:ESOL Strategies for Content Area Teachers
Content Discipline: (24 credits)	**Content Discipline: (21 credits)**
GLY3171: Geomorphology of the U.S. **(REMOVED)** GLY3884: Environmental Geology **(REMOVED)** GLY3884L: Environmental Geology **(REMOVED)**	GLY4700C: Geomorphology **(COURSE MODIFIED)**
GLY4045: Moon , Planets and Meteors **(REMOVED)**	AST4045: Astronomy **(COURSE MODIFIED)**
OCE3014: Survey of Oceanography OCE3014L: Survey of Oceanography Lab	OCE3014: Survey of Oceanography OCE3014L: Survey of Oceanography Lab
MET3702: General Meterology MET3702L: General Meterology Lab	MET3702: General Meteorology MET3702L: General Meteorology Lab
	PHY1025: Basic Physics **(ADDED)**
ISC 3012: History of Science **(REMOVED)**	ISC4535: Authentic Inquiry in the Science **(NEW)**
Science Education Content Discipline: (6 credits)	**Science Education Content Discipline: (9 credits)**
SCE4362: Methods of Teaching Science 1	SCE4362: Methods of Teaching Science
SCE4363: Methods of Teaching Science 2	SCE4363: Advanced Topics in Science Education Practicum
	SCE 3863: Teaching and Learning the Nature of Science **(NEW)**
Internship: (12 credits)	**Internship: (12 credits)**
SCE4945:Student Teaching/Science Education Internship and Seminar	SCE4945:Student Teaching/Science Education Internship SCE4943: Science Education Seminar **(NEW)**

APPROVE_____OPPOSE_____ MORE INFORMATION_____

Delete Existing Courses
Effective Term: 2007-3
EDC 0150
HEV 0150
HEV 0163
HEV 0813
HEV 0814
HEV 0835
HEV 0836

APPROVE_____OPPOSE_____ MORE INFORMATION_____