NORTH CAROLINA COMMUNITY COLLEGE SYSTEM
Dr. R. Scott Ralls, President

December 10, 2013

To: Presidents
Chief Academic Officers

From: Wesley Beddard, Associate Vice President
Student Learning and Success

Subject: Curriculum Review Committee Course Approvals

The Curriculum Review Committee (CRC) has the responsibility for maintaining the curriculum courses in the Combined Course Library (CCL). The approved course requests from the Fall 2013 meeting are attached for your information. Please note that in addition to traditional course requests, the CRC approved course requests that were submitted as part of the following projects, which are reflected on separate logs:

Developmental Education Initiative
Emergency Medical Science Accreditation Alignment Grant Project
Fire Protection Career and Technical Education Grant Project
Mathematics Curriculum Improvement Project (CIP)

There were thirty MAT courses that were archived as a result of the mathematics CIP and twenty-one developmental MAT, ENG and RED courses that were archived as part of the Developmental Education Initiative. These archived courses impact pre/co-requisites of other courses; therefore, we have included a separate log of course revisions (i.e. revised course requisites) that took place as a result of archived courses. Please note that colleges may add local prerequisites and/or corequisites if they determine a need exists. There may be future revisions to these courses if we receive recommendations from representatives of specific disciplines or colleges that determine additional statewide course requisites are needed as replacements for the archived requisites.

The CRC approved requests to revise the **course description, prerequisite(s), corequisite(s), and/or class/lab hours** of core courses found on the curriculum standards listed below.

Fire Protection Technology (A55240) Radiography (A45700)

Please note that the only change indicated on the printed standard will be the inclusion of the statement "CRC Revised-Electronic Only 11/7/13", since only the electronic version of the standard template will be revised.

CC13-024
E-mail

The State Board of Community Colleges has delegated authority to the Senior Vice President and Chief Academic Officer to approve curriculum standard changes involving **core course title and/or credit hour changes** resulting from CRC action. The standards listed below have been revised as a result of CRC-approved changes to one or more core courses:

Aquarium Science Technology (A20260)
Boat Manufacture and Service (D60330)
Business Analytics (A25350)
Ophthalmic Medical Assistant (D45510)
*Zoological Science Technology (A20250)

**This program major had core courses with prerequisite, class hour and lab hour changes, but is within a cluster standard which included a program major with a credit hour change.*

The following curriculum standards involved CRC approved core course revisions **and *additional* standard revision requests** that were approved at the November 2013 State Board meeting:

Emergency Medical Science (A45340)
Dietetic Technician (A45310)

Several of the pre-majors under the Associate in Arts and Associate in Science, as well as the Core 44 College Transfer Pathways, were impacted due to the approved requests to archive and revise MAT courses. The pre-majors, and the Core 44 Pathways are currently under review; as a part of the Comprehensive Articulation Agreement revision; therefore, we have not yet revised these standards. Additional information concerning the pre-majors and the pathways will be forwarded to colleges in the near future.

Please be aware that you must implement the attached revised courses and standards no later than one year after the effective term. You must update your college's electronic program of study and receive approval from the System Office prior to implementation of the revised courses and programs. The revised standards are attached for your convenience.

Curriculum standards, curriculum courses and procedures for submitting requests to the CRC are available on the Academic Programs home page at http://www.nccommunitycolleges.edu/programs. If you need assistance or clarification, please contact Ms. Jennifer Frazelle, Director of Academic Programs, at frazellej@nccommunitycolleges.edu or (919) 807-7120.

WB/dm
Attachments
c: Curriculum Review Committee
Dr. Sharon E. Morrissey
Ms. Elizabeth Self
Ms. Cynthia Liston
Ms. Jennifer Frazelle
Program Coordinators

CC13-024
E-mail

Curriculum Course Requests Approved By the Curriculum Review Committee (CRC)
on November 7, 2013

Course Prefix #	Title	Request	Effective Semester	Curriculum Standard Core Course
ACA 090	Study Skills	Change course title from "Study Skills" to "Student Success Strategies" Change course description	Fall 2014 (2014*03)	NA
BTB 108	Boat Plumbing Systems	Change course hours from "2-12-0-6" to "2-6-0-4"	Fall 2014 (2014*03)	Boat Manufacture and Service (D60330)
BTB 115	Hull and Joinerwork Prep	New CCL course	Spring 2014 (2014*01)	NA
DET 110	Dietetic Technician I	Archive Course	Summer 2015 (End Term)	Dietetic Technician (A45310)
DET 112	Intro to Nutr	New CCL course	Spring 2014 (2014*01)	NA
DET 113	Basic Food Science	New CCL course	Spring 2014 (2014*01)	NA
DET 114	Supervised Practice I	New CCL course	Spring 2014 (2014*01)	NA
DET 115	Dietetic Technician II	Archive Course	Fall 2014 (End Term)	Dietetic Technician (A45310)
DET 116	Food Mgt Sys & Nutr Concepts	New CCL course	Spring 2014 (2014*01)	NA
DET 117	Foodservice Management Systems	New CCL course	Spring 2014 (2014*01)	NA
DET 118	Supervised Practice II	New CCL course	Spring 2014 (2014*01)	NA
DET 120	Dietetic Technician II	Archive Course	Summer 2015 (End Term)	Dietetic Technician (A45310)
DET 210	Dietetic Technician IV	Archive Course	Summer 2015 (End Term)	Dietetic Technician (A45310)
DET 220	Dietetic Technician V	Archive Course	Summer 2015 (End Term)	Dietetic Technician (A45310)
DET 221	Nutr Assess & Skill Develop	New CCL course	Spring 2014 (2014*01)	NA

Curriculum Course Requests Approved By the Curriculum Review Committee (CRC)
on November 7, 2013

Course Prefix #	Title	Request	Effective Semester	Curriculum Standard Core Course
DET 222	Nutr Counseling and Education	New CCL course	Spring 2014 (2014*01)	NA
DET 223	Community Nutrition	New CCL course	Spring 2014 (2014*01)	NA
DET 224	Supervised Practice III	New CCL course	Spring 2014 (2014*01)	NA
DET 225	Dietetic Technician VI	Change title from "Dietetic Technician VI" to "Profession of Dietetics" Change course description	Fall 2014 (2014*03)	Dietetic Technician (A45310)
DET 226	Medical Nutrition Therapy	New CCL course	Spring 2014 (2014*01)	NA
DET 227	Dietetics Overview	New CCL course	Spring 2014 (2014*01)	NA
DET 228	Supervised Practice IV	New CCL course	Spring 2014 (2014*01)	NA
OPH 106	Optha Med Assist Pract I	Change hours from "0-0-27-9" to "0-0-21-7"	Spring 2014 (2014*01) Early Implement	Ophthalmic Medical Assistant (D45510)
OPH 110	Op Med Asst Practicum II	Change hours from "0-0-27-9" to "0-0-21-7"	Spring 2014 (2014*01) Early Implement	Ophthalmic Medical Assistant (D45510)

Curriculum Course Requests Approved By the Curriculum Review Committee (CRC)
on November 7, 2013

Course Prefix #	Title	Request	Effective Semester	Curriculum Standard Core Course
RAD 121	Radiographic Imaging I	Change corequisites from "None" to "RAD 112, and RAD 161" Change course description	Spring 2014 (2014*01) Early Implement	Radiography (A45700)
RAD 131	Radiographic Physics I	Change prerequisites from "None" to "RAD 121" Change corequisites from "None" to "RAD 122, and RAD 171"	Spring 2014 (2014*01) Early Implement	Radiography (A45700)
RAD 211	Radiographic Procedures III	Change prerequisites from "RAD 122" to "RAD 122, RAD 131, and RAD 171"	Spring 2014 (2014*01) Early Implement	Radiography (A45700)
RAD 231	Radiographic Physics II	Change corequisites from "None" to "RAD 211, RAD 241, and RAD 251	Spring 2014 (2014*01) Early Implement	Radiography (A45700)
RAD 245	Imaging Analysis	Change corequisites from "RAD 161" to "RAD 261, and RAD 271"	Spring 2014 (2014*01) Early Implement	Radiography (A45700)
RAD 261	Radiographic Clinical Education V	Change corequisites from "RAD 245" to "RAD 245, and RAD 271"	Spring 2014 (2014*01) Early Implement	Radiography (A45700)
ZAS 113	Animal Exhibits	Change prerequisites from "ZAS 110" to "None"	Spring 2014 (2014*01) Early Implement	Aquarium Science Technology (A20260)
ZAS 210	Intro to Aquarium Science	Change course hours from "1-0-1" to "3-3-4" Change prerequisites from "ZAS 110 and ZAS 112" to "None"	Spring 2014 (2014*01) Early Implement	Zoological Science Technology (A20250) Aquarium Science Technology (A20260)
ZAS 243	Prin of Aquarium Science	Change hours from "3-0-3" to "2-3-3"	Spring 2014 (2014*01) Early Implement	Aquarium Science Technology (A20260)

Developmental Education Initiative

Course Requests Approved by the Curriculum Review Committee

Code	Curriculum Course Number	Curriculum Course Title	Request	Effective Semester	Core Course
Developmental Math (DMA)					
DMA-01	MAT 050	Basic Skills Math	Unarchive Course	Remove endterm of Fall of 2013	NA
DMA-02	MAT 075	Geometry	Archive Course	End Term Spring 2014	NA
DMA-03	MAT 090	Accelerated Algebra	Archive Course	End Term Spring 2014	NA
DMA-04	MAT 095	Algebraic Concepts	Archive Course	End Term Spring 2014	NA
Developmental Reading/English (DRE)					
DRE-01	ENG 060	Speaking English Well	Archive Course	End Term Summer 2014	NA
DRE-02	ENG 070	Basic Language Skills	Archive Course	End Term Summer 2014	NA
DRE-03	ENG 075	Reading and Language Essent	Archive Course	End Term Summer 2014	NA
DRE-04	ENG 075A	Reading & Language Ess Lab	Archive Course	End Term Summer 2014	NA
DRE-05	ENG 080	Wrting Foundations	Archive Course	End Term Summer 2014	NA
DRE-06	ENG 081	Fast Track Writing Found	Archive Course	End Term Summer 2014	NA
DRE-07	ENG 085	Reading and Writing Found	Archive Course	End Term Summer 2014	NA
DRE-08	ENG 085A	Reading & Writing Fnd Lab	Archive Course	End Term Summer 2014	NA
DRE-09	ENG 090	Composition Strategies	Archive Course	End Term Summer 2014	NA
DRE-10	ENG 090A	Comp Strategies Lab	Archive Course	End Term Summer 2014	NA
DRE-11	ENG 091	Fast Track Comp Strateg	Archive Course	End Term Summer 2014	NA
DRE-12	ENG 095	Reading & Comp Strategies	Archive Course	End Term Summer 2014	NA
DRE-13	ENG 095A	Reading & Comp Strat Lab	Archive Course	End Term Summer 2014	NA
DRE-14	RED 070	Essential Reading Skills	Archive Course	End Term Summer 2014	NA
DRE-15	RED 080	Intro to College Reading	Archive Course	End Term Summer 2014	NA
DRE-16	RED 081	Fast Track Intro Coll Rdg	Archive Course	End Term Summer 2014	NA
DRE-17	RED 090	Improved College Reading	Archive Course	End Term Summer 2014	NA
DRE-18	RED 091	Fast Track Imprv Coll Rdg	Archive Course	End Term Summer 2014	NA

Emergency Medical Science Accreditation Alignment Grant Project

Course Requests Approved by Curriculum Review Committee

(Effective Term Spring 2014)

Course Prefix #	Current Course Title	Summary of Revisions
EMS 110	EMT-Basic	Revise title to: *EMT* Revise course hours: Class 6, Lab 6, Clinic 0, Credit 8 Revise course description
EMS 120	Intermediate Intervention	Revise title to: *Advanced EMT* Revise course hours: Class 4, Lab 6, Clinic 0, Credit 6 Revise course description Revise corequisites to: EMS 121
EMS 121	EMS Clinical Practicum	Revise title to: *AEMT Clinical Practicum* Revise course description Revise corequisites to: EMS 120
EMS 122	EMS Hospital Clinical I	Revise title to: *EMS Clinical Practicum I* Revise course description Revise corequisites to: EMS 130
EMS 130	Pharmacology I for EMS	Revise title to: *Pharmacology* Revise course description Revise course hours: Class 3, Lab 3, Clinic 0, Credit 4 Revise corequisites to: EMS 122
EMS 131	Adv Airway Management	Revise course description Revise corequisites to: Class 1, Lab 2, Clinic 0, Credit 2
EMS 140	Rescue Scene Management	Revise course description
EMS 150	Emerg Vehicles & EMS Comm	Revise course description
EMS 220	Cardiology	Revise title to: *Cardiology II* Revise course hours to: Class 2, Lab 3, Clinic 0, Credit 3 Revise course description Revise prerequisites to: EMS 122, EMS 130 and EMS 160
EMS 221	EMS Clinical Practicum II	Revise course hours to: Class 0, Lab 0 Clinic 6, Credit 2 Revise course description Revise prerequisites to: EMS 122 and EMS 130
EMS 231	EMS Clinical Practicum III	Revise course description Revise prerequisites to: EMS 130 and EMS 221
EMS 240	Special Needs Patients	Revise title to: *Patients with Special Challenges* Revise course description Revise prerequisites to: EMS 122 and EMS 130
EMS 241	EMS Clinical Practicum IV	Revise course hours to: Class 0, Lab 0, Clinic 12, Credit 4 Revise course description Revise prerequisites to: EMS 130 and EMS 231
EMS 250	Adv. Medical Emergencies	Revise title to: *Medical Emergencies* Revise course hours to: Class 3, Lab 3, Clinic 0, Credit 4 Revise course description Revise prerequisites to: EMS 122 and EMS 130
EMS 260	Advanced Trauma Emergencies	Revise title to: *Trauma Emergencies* Revise course description Revise prerequisites to: EMS 122 and EMS 130
EMS 270	Life Span Emergencies	Revise course hours to: Class 2, Lab 3, Clinic 0, Credit 3 Revise course description Revise prerequisites to: EMS 122 and EMS 130
EMS 280	EMS Bridging Course	Revise course description

Course Prefix #	Current Course Title	Archived Courses Reason for Archiving
EMS 111	Prehospital Environment	Archive Content has been threaded throughout the program.
EMS 210	Adv. Patient Assessment	Archive Content has been threaded throughout the paramedic courses.
EMS 222	EMS Hospital Clinical II	Archive Replaced by the revised EMS 221 course.
EMS 230	Pharmacology II for EMS	Archive Replaced by the revised EMS 130 course.
EMS 232	EMS Hospital Clinical III	Archive Replaced by the revised EMS 231 course.
EMS 242	EMS Hospital Clinical IV	Archive Replaced by the revised EMS 241 course.

Course Prefix #	New Course Title	Summary of New Course
EMS 160	Cardiology I	Title: *Cardiology I* Prerequisites: EMS 110 Hours: Class 1, Lab 3, Clinic 0, Credit 2 Course description

Many of the revised EMS courses are core courses for the following curriculum standard:

Emergency Medical Science (A45340)

Additional changes to this curriculum standard were approved by the State Board of Community Colleges on November 15, 2013.

Fire Protection Technology Career and Technical Education (CTE)
Course Requests Approved by Curriculum Review Committee
(Effective Term Fall 2014)

Course Prefix/#	Current Course Title	Summary of Revisions	Core Course
FIP - 110	Fire Prot/Rest & Hotels	Add student learning outcomes	
FIP - 120	Intro to Fire Protection	Add student learning outcomes	Fire Protection Technology A55240
FIP - 124	Fire Prevention & Public Ed	Add student learning outcomes Revise course description	Fire Protection Technology A55240
FIP – 128	Detection & Investigation	Add student learning outcomes Revise course description	Fire Protection Technology A55240
FIP – 132	Building Construction	Add student learning outcomes Revise course description	Fire Protection Technology A55240
FIP – 136	Inspections & Codes	Add student learning outcomes Revise course description	
FIP – 140	Industrial Fire Protection	Add student learning outcomes Revise course description	
FIP – 152	Fire Protection Law	Add student learning outcomes Revise course description	
FIP - 156	Computers in Fire Svc	Add student learning outcomes	
FIP – 160	Fire Protection/Elec	Add student learning outcomes Revise course description	
FIP – 160A	Fire Protection/Elec Lab	Add student learning outcomes Revise course description	
FIP – 164	OSHA Standards	Add student learning outcomes Revise course description	
FIP – 176	HazMat Operations	Add student learning outcomes	
FIP – 180	Wildland Fire Behavior	Add student learning outcomes Revise course description	
FIP – 184	Wildland Fire Safety	Add student learning outcomes Revise course description	
FIP - 188	Intro to Wildland Fires	Add student learning outcomes Revise course description	
FIP - 220	Fire Fighting Strategies	Add student learning outcomes Revise course description	Fire Protection Technology A55240
FIP – 221	Adv Fire Fighting Strat	Add student learning outcomes Revise course description	
FIP - 224	Fire Instructor I & II	Add student learning outcomes	
FIP – 226	Fire Officer I & II	Add student learning outcomes	
FIP – 228	Local Govt Finance	Add student learning outcomes	
FIP – 229	Fire Dynamics & Combust	Add student learning outcomes Revise course description	
FIP – 230	Chem of Hazardous Mat I	Add student learning outcomes Revise course description	
FIP – 231	Chem of Hazardous Mat II	Add student learning outcomes Revise course description	
FIP - 232	Hydraulics & Water Dist	Remove prerequisite: (MAT-115,120,121, 140, 151, 161, 171, or 175). Add student learning outcomes; Revise course description	

Course Prefix/#	Current Course Title	Request	Core Course
FIP – 236	Emergency Management	Revise course prefix & number to EPT 140	Emergency Management A55460
FIP – 240	Fire Service Supervision	Add student learning outcomes	
FIP – 244	Fire Protection Project	Add student learning outcomes Revise course description	
FIP – 248	Fire Svc Personnel Adm	Add student learning outcomes Revise course description	
FIP – 252	Apparatus Spec & Purch	Add student learning outcomes Revise course description	
FIP – 256	Munic Public Relations	Add student learning outcomes Revise course description	
FIP - 260	Fire Prot Planning	Add student learning outcomes Revise course description	
FIP – 264	Flame Prop & Mat Rating	Add student learning outcomes Revise course description	
FIP – 268	Wildland Fire Management	Add student learning outcomes Revise course description	
FIP – 272	Wildland Fire Strategy	Add student learning outcomes Revise course description	
FIP – 276	Managing Fire Services	Add student learning outcomes Revise course description	
FIP – 277	Fire and Social Behavior	Add student learning outcomes	
New Course			
FIP – 146	Fire Protection Systems	New course Replaces FIP 144 & FIP 148	
Archived Courses			
FIP – 144	Sprinklers & Auto Alarms	Archive Will be replaced with FIP 146	
FIP – 148	Fixed & Port Extinguishing Sys	Archive Will be replaced with FIP 146	

Mathematics Curriculum Improvement Project
Course Requests Approved by Curriculum Review Committee
(Effective Term Fall 2014)

Course Prefix/#	Current Course Title	Summary of Revisions
MAT 110	Mathematical Measurement	Revise title to: *Mathematical Measurement and Literacy* Revise prerequisites to: DMA 010, DMA 020, and DMA 030 Revise course description Add Student Learning Outcomes
MAT 121	Algebra/Trigonometry I	Revise prerequisites to: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, and DMA 060; Revise course description Add Student Learning Outcomes
MAT 122	Algebra/Trigonometry II	Revise prerequisite to: MAT 121 Revise course description Add Student Learning Outcomes
MAT 141	Mathematical Concepts I	Revise prerequisites to: MAT 121 or MAT 171 or (DMA 010, DMA 020, DMA 030 and DMA 040)
MAT 167	Discrete Mathematics	Revise prerequisites to: MAT 121 or MAT 171 Revise course description Add Student Learning Outcomes
MAT 171	Precalculus Algebra	Revise prerequisites to: MAT 121 or (DMA 010, DMA 020,DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, and DMA 080) Revise course hours: Class 3, Lab 2, Credit 4 Revise course description Add Student Learning Outcomes
MAT 172	Precalculus Trigonometry	Revise course hours: Class 3, Lab 2, Credit 4 Revise course description Add Student Learning Outcomes
MAT 252	Statistics II	Revise title to: Statistical Methods II Revise prerequisites to: (MAT 152 and MAT 121) or (MAT 152 and MAT 171) Revise course hours: Class 3, Lab 2, Credit 4 Revise course description Add Student Learning Outcomes
MAT 263	Brief Calculus	Revise prerequisites to MAT 171 Revise course hours: Class 3, Lab 2, Credit 4 Revise course description Add Student Learning Outcomes
MAT 271	Calculus I	Revise prerequisites to: MAT 172 Revise course description Add Student Learning Outcomes
MAT 272	Calculus II	Revise course description Add Student Learning Outcomes
MAT 273	Calculus III	Revise course description Add Student Learning Outcomes
MAT 280	Linear Algebra	Revise course hours: Class 2, Lab 2, Credit 3 Revise course description Add Student Learning Outcomes
MAT 285	Differential Equations	Revise course hours: Class 2, Lab 2, Credit 3 Revise course description Add Student Learning Outcomes

Course #	Current Course Title	Archived Courses Reason for Archiving
MAT 101	Applied Mathematics I	Archive-Replace with MAT 110, which has a requested revision and will provide an AAS degree level course
MAT 102	Applied Mathematics II	Archive-Historic system-wide low enrollment and archiving MAT 101
MAT 115	Mathematical Models	Archive-Replaced by MAT 110 (revised course) or MAT 143 (new course) which will allow non-STEM AAS programs to choose either an applied course with only DMA 010-030 pre-requisites or Quantitative Literacy course that is transferable.
MAT 120	Geometry and Trigonometry	Archive-Historic system-wide low enrollment and proposed revision to MAT 121 to include geometry
MAT 140	Survey of Mathematics	Archive-Replaced by MAT 143 (new course) which has uniform Student Learning Objectives
MAT 145	Analytical Math	Archive-Duplicates material in MAT 167
*MAT 151	Statistics I	Archive-Replaced by MAT 152 (new course) which combines concepts of MAT 151 and 155
*MAT 155	Statistical Analysis	Archive-Replaced by MAT 152 (new course) which combines concepts of MAT 151 and 155.
MAT 161	College Algebra	Archive-Duplicates material in MAT 171
MAT 162	College Trigonometry	Archive-Duplicates material in MAT 172
MAT 165	Finite Mathematics	Archive-Duplicates material in MAT 167
MAT 175	Precalculus	Archive-Duplicates material in MAT 171 and MAT 172
MAT 210	Logic	Archive-Very low system-wide enrollment. Duplicates some material in MAT 167
All MAT Lab (A) Courses	MAT – 140A, 141A, 142A, 145A, 151A, 155A, 161A,, 162A, 165A, 167A, 171A, 172A, 175A, 210A, 223A, 252A, and 263A	Archive-When necessary, labs have been embedded in courses. This promotes consistency.

**Core courses on the Business Analytics (A25350) curriculum standard.*

Course #	New Course Title	New Courses Summary of New Course
MAT 143	Quantitative Literacy	Title: Quantitative Literacy Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, and DRE 098 Hours: Class 2, Lab 2, Credit 3 New course description New Student Learning Outcomes
MAT 152	Statistical Methods I	Title: Statistical Methods I Prerequisites: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, and DRE 098 Hours: Class 3, Lab 2, Credit 4 New course description New Student Learning Outcomes

Please note that several of the pre-majors under the Associate in Arts and Associate in Science were impacted due to approved requests to archive and revise MAT courses. The pre-majors are currently under review, therefore, these pre-major standards have not yet been revised. Additional information concerning the pre-majors will be forwarded to colleges in the near future.

Revised Courses Due to Archived MAT Courses which were course requisites
Revised Course Due to Archived Developmental MAT, RED and ENG Courses which were course requisites
(Includes MAT 075, 090 & 095 that were archived by CRC in October and MAT 051, 060, 061, 070, 071, 080 and 081 that were archived by CRC in January)
Bolded Courses with strikethroughs have been removed from course requisites with an effective term of Fall of 2014

Course	Title	Corequisite Revised to Eliminate Archived Courses	Prerequiste Revised to Eliminate Archived Courses
ACC-125	Mathematics of Finance	NA	BUS-121, ~~**MAT-115, MAT-120, MAT-140, or MAT-151**~~
ARC-141	Elem Structures for Arch	NA	Take One Set:
			Set 1: ARC-111 & MAT-121
			Set 2: ARC-111 & MAT-171
			~~Set 3: ARC-111 & **MAT-175**~~
ARC-230	Environmental Systems	NA	Take One Set:
			Set 1: ARC-111 & MAT-121
			~~Set 2: ARC-111 & **MAT-151**~~
			~~Set 3: ARC-111 & **MAT-161**~~
			Set 4: ARC-111 & MAT-171
			~~Set 5: ARC-111 & **MAT-175**~~
BUS-228	Business Statistics	NA	~~**MAT-115**, **MAT-140**~~, or ~~**MAT-161**~~

Course	Title	Corequisite Revised to Eliminate Archived Courses	Prerequiste Revised to Eliminate Archived Courses
CHM-094	Basic Biological Chemistry	Take One Set:	Take One Set:
		1: DMA-040	Set 1: DMA-010-DMA-040
		~~**2: MAT-060* & MAT-070**~~	~~**Set 2: MAT-060**~~
			~~**Set 3: MAT-060* & MAT-080**~~
			~~Set 4: **MAT-060* & MAT-090**~~
			~~**Set 5: MAT-095**~~
			~~**Set 6: MAT-120**~~
			Set 7: MAT-121
			~~**Set 8: MAT-161**~~
			Set 9: MAT-171
			~~**Set 10: MAT-175**~~
CIM-250	Cancer Stat/Epidemiology	NA	~~**MAT-115 or MAT-140**~~
CIS-115	Intro to Prog & Logic	NA	Take One Set:
			Set 1: DMA-010 - DMA-040
			~~**Set 2: MAT-060* & MAT-070**~~
			~~**Set 3: MAT-060* & MAT-080**~~
			~~**Set 4: MAT-060* & MAT-090**~~
			~~**Set 5: MAT-095**~~
			~~**Set 6: MAT-120**~~
			Set 7: MAT-121
			~~**Set 8: MAT-161**~~
			Set 9: MAT-171
			~~**Set 10: MAT-175**~~
CIV-215	Highway Technology	NA	CEG-115 or EGR-115
			and Take MAT-121, ~~**MAT-161**~~ or MAT-171

Course	Title	Corequisite Revised to Eliminate Archived Courses	Prerequiste Revised to Eliminate Archived Courses
CSC-120	Computing Fundamentals I	NA	Take One Set:
			Set 1: DMA-010, 020,030, 040, & 050
			~~**Set 2: MAT-080**~~
			~~**Set 3: MAT-090**~~
			~~**Set 4: MAT-095**~~
			~~**Set 5: MAT-120**~~
			Set 6: MAT-121
			~~**Set 7: MAT-161**~~
			Set 8: MAT-171
			~~**Set 9: MAT-175**~~
CST-211	Construction Surveying	NA	~~**MAT-115, 120**~~, 121, ~~**161,**~~ or 171, ~~**or 175**~~
CST-221	Statics/Structures	NA	Take One Set:
			~~Set 1: **MAT-115** & ARC-112~~
			~~Set 2: **MAT-115** & CAR-112~~
			~~Set 3: **MAT-115** & CST-112~~
			~~Set 4: **MAT-120** & ARC-112~~
			~~Set 5: **MAT-120** & CAR-112~~
			~~Set 6: **MAT-120** & CST-112~~
			Set 7: MAT-121 & ARC-112
			Set 8: MAT-121 & CAR-112
			Set 9: MAT-121 & CST-112
			~~Set 10: **MAT-161** & ARC-112~~
			~~Set 11: **MAT-161** & CAR-112~~
			~~Set 12: **MAT-161** & CST-112~~
			Set 13: MAT-171 & ARC-112
			Set 14: MAT-171 & CAR-112
			Set 15: MAT-171 & CST-112
			~~Set 16: **MAT-175** & ARC-112~~
			~~Set 17: **MAT-175** & CAR-112~~
			~~Set 18: **MAT-175** & CST-112~~

Course	Title	Corequisite Revised to Eliminate Archived Courses	Prerequiste Revised to Eliminate Archived Courses
CST-231	Soils & Site Work	NA	**MAT-~~115, 120,~~** 121, **~~161,~~** or 171, **~~175~~**
CST-241	Planning/Estimating I	NA	BPR-130, **~~MAT 120,~~** MAT-121, **~~MAT 161,~~** or MAT-171, ~~or~~ **~~MAT 175~~**
DFT-211	Gears, Cams, & Pulleys	NA	Take One Set:
			Set 1: DFT-111 & MAT-121
			~~Set 2: DFT-111 &~~ **~~MAT-161~~**
			Set 3: DFT-111 & MAT-171
			~~Set 4: DFT-111 &~~ **~~MAT-175~~**
EDU-114	Intro to Family Childcare	DRE-097	~~Set 1: MAT-060~~
			Set 2: DMA 010, 020, and 030
EDU-257	Inst Strat/Math	DRE-098	~~Set 1: MAT-060~~
			Set 2: DMA 010, 020, and 030
ENG-110	Freshman Composition	NA	~~Set 1: ENG-090 and RED-080~~
			Set 2: DRE-097
ENG 138	English Grammer	NA	~~Set 1: ENG-090 and RED-090~~
			~~Set 2: ENG-095~~
			Set 3: DRE-098
EGR-130	Engineering Cost Control	NA	MAT-121, **~~MAT-161,~~** or MAT-171
EGR-250	Statics/Strength of Mater	NA	MAT-121, **~~MAT-161,~~** or MAT-171, ~~or~~ **~~MAT-175~~**
HCI-110	Intro to Healthcare Interp	NA	~~ENG-090 and RED-090~~
HCI-114	Ana Skills for Interp	NA	~~ENG-090 and RED-090~~

Course	Title	Corequisite Revised to Eliminate Archived Courses	Prerequiste Revised to Eliminate Archived Courses
HCI-115	Healthcare in the U.S.	NA	~~ENG-090 and RED-090~~
HCI-120	Medical Communication	NA	~~ENG-090 and RED-090~~
HCI-213	Review of Grammer	NA	~~ENG-090 and RED-090~~
HSC-140	Transcultural Healthcare	NA	~~ENG-090 and RED-090~~
HIT-210	Healthcare Statistics	NA	MAT-110, ~~**MAT-115, MAT-140 or MAT-161**~~
IMS-121	Integrated Math/Physics I	NA	Set 1: DMA -010, 020, 030, 040 and 050
			~~Set 2: MAT -070~~
LBT-125	Lab. Instrumentation	~~**MAT-155**~~	LBT-110
OPH-140	Math for Opticians	NA	Set 1: DMA 010, 020, 030, 040 and 050
			~~Set 2: MAT-060 and MAT-070~~
PHI-250	Philosophy of Science	NA	Take One Set:
			~~Set 1: ENG-111 & **MAT-161**~~
			Set 2: ENG-111 & MAT-171
			~~Set 3: ENG-111 & **MAT-175**~~
PHY-131	Physics-Mechanics	NA	MAT-121, ~~**MAT-161,**~~ or MAT-171, ~~or **MAT-175**~~
PHY-151	College Physics I	NA	~~**MAT-161,**~~ MAT-171~~, or **MAT-175**~~
PSY-284	Experimental Psychology	NA	PSY-150 ~~& **MAT-161**~~
PSY-285	Psychological Statistics	NA	PSY-150 ~~& **MAT-161**~~
SGD-115	Physically-Based Modeling	NA	MAT-121, ~~**MAT-161,**~~ or MAT-171, ~~or **MAT-175**~~

Course	Title	Corequisite Revised to Eliminate Archived Courses	Prerequiste Revised to Eliminate Archived Courses
SRV-110	Surveying I	**MAT~~-080,120~~**, 121, **~~161,~~** ~~or~~ 171 or (DMA 060, 070 & 080)	
SRV-112	Landscape Arch Surveying	NA	MAT-101, MAT-110, **~~MAT-115, MAT-120~~**, MAT-121,
			~~MAT-161~~, or MAT-171, ~~or~~ **~~MAT-175~~**
WAT-165	Applied Hydraulics	NA	MAT-121, **~~MAT-140, MAT-161~~**, or MAT-171, ~~or~~ **~~MAT-175~~**

The following courses include archived developmental RED/ENG requisites. Proposals for a replacement DRE requisite will be sent to the CRC in February, 2014 for action. The proposed DRE requisite recommendations are provided below:

Course	Title	Archived Corequisite	Proposed Corequisite	Archived Prerequisite	Proposed Prerequisite
BIO-090	Foundations of Biology	~~RED-090~~	DRE 098	NA	NA
BIO-092	Basics of Cell Biology	~~RED-090~~	DRE 097	NA	NA
BIO-094	Concepts of Human Biology	~~RED-090 or ENG-095~~	DRE 098	NA	NA
BTC-150	Bioethics	~~RED-090~~	DRE 098	NA	NA
HUM-115	Critical Thinking	NA	NA	~~ENG-095 or (ENG-090 and RED-090)~~	DRE 098
PED-165	Sport Science as a Career	NA	NA	~~ENG-090 and RED-090~~	DRE 097
SOC-245	Drugs and Society	NA	NA	~~RED-090 and SOC 210~~	DRE-098 and SOC 210

Curriculum Standard for Fire Protection Technology

Career Cluster: Law, Public Safety, Corrections & Security

Cluster Description: Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

Pathway: Public Service Technologies	**Effective Term:** Fall 2014 (2014*03)

Program Majors Under Pathway:

Program Major / Classification of Instruction Programs (CIP) Code		**Credential Level(s) Offered**	**Program Major Code**
Fire Protection Technology	CIP Code 43.0201	AAS/Diploma/Certificate	A55240

Pathway Description: The Fire Protection Technology curriculum is designed to provide students with knowledge and skills in the technical, managerial, and leadership areas necessary for advancement within the fire protection community and related firefighting industries, and to provide currently employed firefighters with knowledge and skills often required for promotional consideration.

Course work includes diverse fire protection subject areas, including fire prevention and safety, public education, building construction, fire ground strategies and tactics, and local government finance and laws, as they apply to emergency services management. Emphasis includes understanding fire characteristics and the structural consequences of fire; risk assessment and management; and relevant research, communications, and leadership methodologies.

Employment opportunities exist with fire departments, governmental agencies, industrial firms, insurance rating organizations, and educational organizations.

*Program Description: Choose one of the following **4th paragraphs** to use in conjunction with the first three paragraphs of the pathway description above for documentation used to identify each **Program Major:***
N/A

I. General Education Academic Core
[*Curriculum Requirements for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97 (3)]*: *Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.*

Fire Protection Technology

Recommended General Education Academic Core	**AAS**	**Diploma**	**Certificate**
Minimum General Education Hours Required:	**15 SHC**	**6 SHC**	**0 SHC**
Courses listed below are recommended general education courses for this curriculum standard. Colleges may choose to include additional or alternative general education courses to meet local curriculum needs.			
Communication: General education courses within communication classification	**6 SHC**	**3-6 SHC**	**Optional**
Humanities/Fine Arts: General education courses within Humanities/Fine Arts classification	**3 SHC**	**0-3 SHC**	**Optional**
Social /Behavioral Sciences: General education courses within Social/Behavioral Sciences classification	**3 SHC**	**0-3 SHC**	**Optional**
Natural Sciences/Mathematics: General education course within Natural Sciences/Mathematics classification	**3 SHC**	**0-3 SHC**	**Optional**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. Below is a description of each section under Major Hours.

A. Technical Core. The technical core is comprised of specific courses which are required for all Program Majors under this Curriculum Standard. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the curriculum core courses or core subject area of the AAS program.

B. Program Major(s). The Program Major must include a minimum of 12 semester hour's credit from required subjects and/or courses. The Program Major is in addition to the technical core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from each prefix listed, with the exception of prefixes listed in the core.

Fire Protection Technology	**AAS**	**Diploma**	**Certificate**
Minimum Major Hours Required:	**49 SHC**	**30 SHC**	**12 SHC**
A. Technical Core: *Courses required for the diploma are designated with **	18 SHC	18 SHC	
Required Courses:			
*FIP 120 Intro to Fire Protection — 3 SHC			
*FIP 124 Fire Prevention & Public Ed — 3 SHC			
*FIP 132 Building Construction — 3 SHC			
*FIP 152 Fire Protection Law — 3 SHC			
*FIP 220 Fire Fighting Strategies — 3 SHC			
*FIP 228 Local Govt Finance — 3 SHC			
Required Subject Areas. None			
B. Program Major(s): Not Applicable			
C. Other Major Hours: ***To be selected from the following prefixes:*** BPR, BUS, CHM, CIS, CJC, COE, COM, CSC, ECO, EHS, ELC, EMS, EPT, FIP, GIS, HSE, LOG, NET, OST, PAD, PED, PHY, POL, SOC, and WBL. *Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.*			

III. Other Required Hours

A college may include courses to meet graduation or local employer requirements in a certificate (0-1 SHC), diploma (0-4 SHC), or an associate in applied science (0-7 SHC) program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

Approved by the State Board of Community Colleges on November 13, 1996; Revised 08/06/97; SBCC Revised 05/17/02; CRC Revised 09/10/03; SBCC Revised 11/21/03; Revised 02/7/05; SBCC Revised 09/21/07; SBCC Template Revised 10/17/08; Revised 07/06/09; 12/20/11; 01/23/12; Editorial Revision 12/19/12; SBCC Revised 10/18/13; CRC Revised—Electronic Only 11/07/13.

IV. Employability Competencies

Fundamental competencies that address soft skills vital to employability, personal, and professional success are listed below. Colleges are encouraged to integrate these competencies into the curriculum by embedding appropriate student learning outcomes into one or more courses or through alternative methods.

A. Interpersonal Skills and Teamwork – The ability to work effectively with others, especially to analyze situations, establish priorities, and apply resources for solving problems or accomplishing tasks.

B. Communication – The ability to effectively exchange ideas and information with others through oral, written, or visual means.

C. Integrity and Professionalism – Workplace behaviors that relate to ethical standards, honesty, fairness, respect, responsibility, self-control, criticism and demeanor.

D. Problem-solving – The ability to identify problems and potential causes while developing and implementing practical action plans for solutions.

E. Initiative and Dependability – Workplace behaviors that relate to seeking out new responsibilities, establishing and meeting goals, completing tasks, following directions, complying with rules, and consistent reliability.

F. Information processing – The ability to acquire, evaluate, organize, manage, and interpret information.

G. Adaptability and Lifelong Learning – The ability to learn and apply new knowledge and skills and adapt to changing technologies, methods, processes, work environments, organizational structures and management practices.

H. Entrepreneurship – The knowledge and skills necessary to create opportunities and develop as an employee or leader.

An **Employability Skills Resource Toolkit has been developed by NC-NET for the competencies listed above. Additional information is located at: http://www.nc-net.info/employability.php*

**The *North Carolina Career Clusters Guide was developed by the North Carolina Department of Public Instruction and the North Carolina Community College system to link the academic and Career and Technical Education programs at the secondary and postsecondary levels to increase student achievement. Additional information about Career Clusters is located at: http://www.nc-net.info/NC_career_clusters_guide.php or http://www.careertech.org.*

Summary of Required Semester Hour Credits (SHC) for each credential:

	AAS	**Diploma**	**Certificate**
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	**64-76**	**36-48**	**12-18**

Approved by the State Board of Community Colleges on November 13, 1996; Revised 08/06/97; SBCC Revised 05/17/02; CRC Revised 09/10/03; SBCC Revised 11/21/03; Revised 02/7/05; SBCC Revised 09/21/07; SBCC Template Revised 10/17/08; Revised 07/06/09; 12/20/11; 01/23/12; Editorial Revision 12/19/12; SBCC Revised 10/18/13; CRC Revised—Electronic Only 11/07/13.

CURRICULUM STANDARD

Effective Term
Spring 2010
*[2010*01]*

Curriculum Program Title	**Radiography**	Program Code	**A45700**
Concentration	**(not applicable)**	CIP Code	**51.0911**

Curriculum Description

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body.

Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology.

Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 1 D SBCCC 400.97(3)]

I. General Education. Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

III. Other Required Hours. A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	**64-76**	**36-48**	**12-18**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 1 D SBCCC 400.97(3)]

A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B. Concentration *(if applicable).* A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Radiography A45700

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. CORE	**53 SHC**	**NR**	
Required Courses:			
RAD 110 Radiography Introduction & Patient Care 3 SHC RAD 111 Radiographic Procedures I 4 SHC RAD 112 Radiographic Procedures II 4 SHC RAD 121 Radiographic Imaging I 3 SHC RAD 122 Radiographic Imaging II 2 SHC RAD 131 Radiographic Physics I 2 SHC RAD 151 RAD Clinical Education I 2 SHC RAD 161 RAD Clinical Education II 5 SHC RAD 171 RAD Clinical Education III 4 SHC RAD 211 Radiographic Procedures III 3 SHC RAD 231 Radiographic Physics II 2 SHC RAD 241 Radiobiology/Protection 2 SHC RAD 245 Image Analysis 2 SHC RAD 251 RAD Clinical Education IV 7 SHC RAD 261 RAD Clinical Education V 7 SHC RAD 271 Radiography Capstone 1 SHC			
Required Subject Areas: None			
B. CONCENTRATION *(Not applicable)*			
C. OTHER MAJOR HOURS *To be selected from the following prefixes:* BIO, CIS, COE, CSC, HSC, RAD, and *WBL *Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.* **WBL prefix will be available in fall 2014.*			

Approved by the State Board of Community Colleges on November 13, 1996; SBCC Revised 05/17/02; SBCC Revised 07/15/05; SBCC Revised 09/21/07; SBCC Template Revised 10/17/08; CRC Revised 03/26/09; CRC Revised—Electronic Only 11/07/13.

Curriculum Standard for Science and Math: Zoo and Aquarium Science Technology

Career Cluster: Science, Technology, Engineering, and Math **

Cluster Description: Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

Pathway: Science and Mathematics

Effective Term: Spring 2014 (2014*01)

Program Majors Under Pathway

Program Major / Classification of Instruction Programs (CIP) Code		Credential Level(s) Offered	Program Major Code
Zoological Science Technology	CIP Code 26.0709	AAS/Diploma/Certificate	A20250
Aquarium Science Technology	CIP Code: 26.0799	AAS/Diploma/Certificate	A20260

Pathway Description:

The Science and Math curriculum prepares students for employment in zoological parks, aquaria, or other settings requiring animal care, breeding, education/conservation, or health of exotic animals.

Course work emphasizes anatomy, physiology, reproduction, behavior, and nutrition of exotic animals that are on exhibit for education and/or conservation purposes or for animals maintained for medical purposes. Students have practical experiences with basic husbandry skills, animal handling/capture/restraint skills, the ability to detect illness, and creative design of exhibits.

Graduates of the curriculum should qualify for entry-level employment opportunities in a variety of settings, including zoos, aquaria, nature science centers, and animal research facilities.

Program Major Description: Choose one of the following ***4th paragraphs*** *to use in conjunction with the first three paragraphs of the pathway description above for documentation used to identify each* ***Program Major:***

Zoo Science Technology: A program that focuses on the application of biological principles to the study of vertebrate wildlife, wildlife habitats, and related ecosystems in remote and urban areas. Potential course work includes instruction in animal ecology; adaptational biology; urban ecosystems; natural and artificial habitat management; limnology; wildlife pathology; and vertebrate zoological specializations such as mammalogy, herpetology, ichthyology, ornithology, and others.

Aquarium Science Technology: A program that prepares individuals to conserve and manage wilderness areas and the flora, marine and aquatic life therein, and manage wildlife reservations and zoological/aquarium facilities for recreational, commercial, and ecological purposes. Potential course work includes instruction in wildlife biology, marine/aquatic biology, freshwater and saltwater ecosystems, the design and operation of natural and artificial wildlife habitats, limnology, wildlife pathology, and vertebrate zoological specializations such as mammalogy, herpetology, ichthyology, ornithology, and others.

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Approved by the State Board of Community Colleges on August 16, 2012; Editorial Revision 09/13/12; Editorial Revision 12/14/12; Editorial Revision 08/21/13; CRC Revised 11/07/13.

I. General Education Academic Core

[*Curriculum Requirements for associate degree, diploma, and certificate programs in accordance with 1 D SBCCC 400.97(3)]*: *Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.*

Science and Math: Zoo and Aquarium Science Technology

Recommended General Education Academic Core		AAS	Diploma	Certificate
Minimum General Education Hours Required:		**15 SHC**	**6 SHC**	**0 SHC**
Courses listed below are recommended general education courses for this curriculum standard. Colleges may choose to include additional or alternative general education courses to meet local curriculum needs.				
Communication:				
*COM 101 Workplace Communication	3 SHC	**6 SHC**	**3-6 SHC**	**Optional**
COM 110 Introduction to Communication	3 SHC			
COM 120 Intro Interpersonal Com	3 SHC			
COM 231 Public Speaking	3 SHC			
*ENG 101 Applied Communications I	3 SHC			
*ENG 102 Applied Communications II	3 SHC			
ENG 110 Freshman Composition	3 SHC			
ENG 111 Expository Writing	3 SHC			
ENG 112 Argument-Based Research	3 SHC			
ENG 114 Prof Research & Reporting	3 SHC			
ENG 115 Oral Communication	3 SHC			
ENG 116 Technical Report Writing	3 SHC			
Humanities/Fine Arts:				
*HUM 101 Values in the Workplace	2 SHC	**3 SHC**	**0-3 SHC**	**Optional**
HUM 110 Technology and Society	3 SHC			
HUM 115 Critical Thinking	3 SHC			
HUM 230 Leadership Development	3 SHC			
PHI 230 Introduction to Logic	3 SHC			
PHI 240 Introduction to Ethics	3 SHC			
Social /Behavioral Sciences:				
ECO 151 Survey of Economics	3 SHC	**3 SHC**	**0-3 SHC**	**Optional**
ECO 251 Prin of Microeconomics	3 SHC			
GEO 110 Introduction to Geography	3 SHC			
GEO 111 World Regional Geography	3 SHC			
*PSY 101 Applied Psychology	3 SHC			
*PSY 102 Human Relations	2 SHC			
PSY 118 Interpersonal Psychology	3 SHC			
PSY 135 Group Processes	3 SHC			
PSY 150 General Psychology	3 SHC			
*SOC 105 Social Relationships	3 SHC			
SOC 210 Introduction to Sociology	3 SHC			
SOC 215 Group Processes	3 SHC			
Natural Sciences/Mathematics:				
BIO 140 Environmental Biology	3 SHC			
BIO 160 Introductory Life Science	3 SHC	**3 SHC**	**0-3 SHC**	**Optional**
*MAT 101 Applied Mathematics I	3 SHC			
MAT 110 Mathematical Measurement	3 SHC			
MAT 115 Mathematical Models	3 SHC			
MAT 120 Geometry and Trigonometry	3 SHC			
MAT 121 Algebra/Trigonometry I	3 SHC			
MAT 140 Survey of Mathematics	3 SHC			
MAT 151 Statistics I	3 SHC			
MAT 155 Statistical Analysis	3 SHC			
PHY 110 Conceptual Physics	3 SHC			
PHY 121 Applied Physics I	4 SHC			

Approved by the State Board of Community Colleges on August 16, 2012; Editorial Revision 09/13/12; Editorial Revision 12/14/12; Editorial Revision 08/21/13; CRC Revised 11/07/13.

II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. Below is a description of each section under Major Hours.

A. Technical Core. The technical core is comprised of specific courses which are required for all Program Majors under this Curriculum Standard. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the curriculum core courses or core subject area of the AAS program.

B. Program Major(s). The Program Major must include a minimum of 12 semester hours credit from required subjects and/or courses. The Program Major is in addition to the technical core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from each prefix listed, with the exception of prefixes listed in the core.

Science and Math: Zoo and Aquarium Science Technology		**AAS**	**Diploma**	**Certificate**
Minimum Major Hours Required:		**49 SHC**	**30 SHC**	**12 SHC**
A. Technical Core:		**30 SHC**		
BIO 111 General Biology I	4 SHC			
BIO 112 General Biology II	4 SHC			
ZAS 112 Intro to Zoo and Aquarium Science	1 SHC			
ZAS 113 Animal Exhibits	1 SHC			
ZAS 120 Zoonotic Diesases	2 SHC			
ZAS 130 Introduction to Ethology	3 SHC			
ZAS 234 Zoo Herpetology	3 SHC			
B. Program Major(s).				
Zoological Science Technology				
Select a minimum of 12 SHC from the following courses for the Zoological Science Technology AAS program:				
ZAS 110 Intro to Zookeeping	5 SHC			
ZAS 131 Applied Animal Psych	3 SHC			
ZAS 232 Zoo Invertebrates	3 SHC			
ZAS 235 Zoo Ornithology	3 SHC			
ZAS 236 Zoo Mammalogy	3 SHC			
Aquarium Science Technology				
Select a minimum of 12 SHC from the following courses for the Aquarium Science Technology AAS program:				
BIO 243 Marine Biology	3 SHC			
MSC 174 Marine Invertebrate Zoo	4 SHC			
ZAS 210 Intro to Aquarium Science	4 SHC			
ZAS 233 Zoo Ichthyology	3 SHC			
ZAS 243 Prin of Aquarium Science	3 SHC			
ZAS 272 Aquatic Pathophysiology	3 SHC			

C. Other Major Hours.

T*o be selected from the following prefixes:*

ACC, AGR, ANS, ARC, BIO, BTC, BUS, CHM, CIS, COE, CSC, CST, CUL, DFT, ECO, ETR, FOR, GCM, GIS, HET, HOR, IVS, LAR, LID, LSG, MSC, SST, TRF, VEN, *WBL and ZAS

Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.

**WBL prefix will be available in fall 2014.*

Approved by the State Board of Community Colleges on August 16, 2012; Editorial Revision 09/13/12; Editorial Revision 12/14/12; Editorial Revision 08/21/13; CRC Revised 11/07/13.

III. Other Required Hours

A college may include courses to meet graduation or local employer requirements in a certificate (0-1 SHC), diploma (0-4 SHC), or an associate in applied science (0-7 SHC) program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

IV. Employability Competencies

Fundamental competencies that address soft skills vital to employability, personal, and professional success are listed below. Colleges are encouraged to integrate these competencies into the curriculum by embedding appropriate student learning outcomes into one or more courses or through alternative methods.

A. Interpersonal Skills and Teamwork – The ability to work effectively with others, especially to analyze situations, establish priorities, and apply resources for solving problems or accomplishing tasks.

B. Communication – The ability to effectively exchange ideas and information with others through oral, written, or visual means.

C. Integrity and Professionalism – Workplace behaviors that relate to ethical standards, honesty, fairness, respect, responsibility, self-control, criticism and demeanor.

D. Problem-solving – The ability to identify problems and potential causes while developing and implementing practical action plans for solutions.

E. Initiative and Dependability – Workplace behaviors that relate to seeking out new responsibilities, establishing and meeting goals, completing tasks, following directions, complying with rules, and consistent reliability.

F. Information processing – The ability to acquire, evaluate, organize, manage, and interpret information.

G. Adaptability and Lifelong Learning – The ability to learn and apply new knowledge and skills and adapt to changing technologies, methods, processes, work environments, organizational structures and management practices.

H. Entrepreneurship – The knowledge and skills necessary to create opportunities and develop as an employee or self-employed business owner.

An **Employability Skills Resource Toolkit has been developed by NC-NET for the competencies listed above. Additional information is located at: http://www.nc-net.info/employability.php*

**The *North Carolina Career Clusters Guide was developed by the North Carolina Department of Public Instruction and the North Carolina Community College system to link the academic and Career and Technical Education programs at the secondary and postsecondary levels to increase student achievement. Additional information about Career Clusters is located at: http://www.nc-net.info/NC_career_clusters_guide.php or http://www.careertech.org.*

Summary of Required Semester Hour Credits (SHC) for each credential:

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	**64-76**	**36-48**	**12-18**

Approved by the State Board of Community Colleges on August 16, 2012; Editorial Revision 09/13/12; Editorial Revision 12/14/12; Editorial Revision 08/21/13; CRC Revised 11/07/13.

CURRICULUM STANDARD

Effective Term
Fall 2014
*[2014*03]*

Curriculum Program Title	**Boat Manufacture and Service (Diploma)**	Program Code	**D60330**
Concentration	**(not applicable)**	CIP Code	**47.0616**

Curriculum Description

The Boat Manufacture and Service Technology program prepares students for employment in the manufacture and service of boats. Students learn the basics of boat design and the implementation of those designs in various components and/or complete boats or yachts.

Course work includes reading and interpreting marine blueprints, manuals, and other documents common to the industry; lofting; constructing forms and mold-making; application of concepts and techniques in composite, and fiberglass; marine woodworking; interior finishing; and marine mechanical, electrical, and plumbing systems.

Graduates may find employment with boat/yacht manufacturers, service yards, dealerships doing commissioning work, and companies doing custom boat building.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 1 D SBCCC 400.97 (3)]

I. **General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. **Major Hours**. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

III. **Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	**64-76**	**36-48**	**12-18**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 1 D SBCCC 400.97(3)]

A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B. Concentration *(if applicable).* A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Boat Manufacture and Service (Diploma) D60330

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. CORE		**25-28 SHC**	
Required Courses. Select a minimum of 12 hours:			
BMS 110 Intro to Marine Woodwork 3 SHC BMS 111 Marine Joinery 3 SHC BMS 112 Marine Blueprints/Lofting 4 SHC BMS 113 Hull & Deck Construction 5 SHC BTB 110 Fiberglass Boat Bldg I 5 SHC BTB 111 Fiberglass Boat Bldg II 5 SHC BTB 112 Fiberglass Boat Repairs 3 SHC			
Required Subject Area. Select a minimum of one subject area:			
Composite Boat Manufacturing. Select a minimum of 13 SHC:			
BMS 114 Intro to Composites 3 SHC BMS 115 Tooling/Mold Construction 5 SHC BMS 116 Composite Production 5 SHC BMS 117 Marine Spray Finishing 2 SHC			
Marine Services. BTB 106 Engine Install/Systems 5 SHC BTB 107 Boat Electrical Systems 5 SHC BTB 108 Boat Plumbing Systems 4 SHC			
B. CONCENTRATION *(Not applicable)*			
C. OTHER MAJOR HOURS *To be selected from the following prefixes* ATR, BMS, BTB, BUS, CIS, COE, DDF, ELN, FBG, HET, ISC, MPS, and WBL *Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.*			

CURRICULUM STANDARD

Effective Term
Fall 2014
*[2014*03]*

Curriculum Program Title	**Business Analytics**	Program Code	A25350
Concentration	**(not applicable)**	CIP Code	52.1301

Curriculum Description

The Business Analytics curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in analytical professions. Business analysts process and analyze essential information about business operations and also assimilate data for forecasting purposes.

Students will complete course work in business analytics, including general theory, best practices, data mining, data warehousing, predictive modeling, project and operations management, statistical analysis, and software packages. Related skills include business communication, critical thinking and decision making.

Graduates should qualify for employment as data technicians, data scientists, business and data analytics engineers, and business analysts in the fields of finance, banking, logistics, marketing, healthcare, manufacturing, information technology, and government organizations.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97 (3)]

I. **General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. **Major Hours**. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

III. **Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	**Diploma**	**Certificate**
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit in Program	**64-76**	**36-48**	**12-18**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 1D SBCCC 400.97(3)]

A. **Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B. **Concentration** *(if applicable).* A concentration of study must include a minimum of 12 semester hours of credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. **Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Business Analytics (A25350)

				AAS	Diploma	Certificate
Minimum Major Hours Required				**49 SHC**	**30 SHC**	**12 SHC**
A.	**CORE** *Courses required for the diploma are designated with **			**32-33 SHC**	**15 SHC**	
Required Courses:						
*	BAS 120	Business Analytics I	3 SHC			
*	BAS 121	Analytics Methods I	3 SHC			
*	BAS 150	Analytics Tools I	3 SHC			
*	BAS 220	Business Analytics II	3 SHC			
	BAS 270	Analytics Practicum	3 SHC			
	BUS 110	Introduction to Business	3 SHC			
	CTS 130	Spreadsheet	3 SHC			
	DBA 110	Database Concepts	3 SHC			
Required Subject Areas:						
Basic Computer Skills(Select one):						
	CIS 110	Introduction to Computers	3 SHC			
	CIS 111	Basic PC Literacy	2 SHC			
	OST 137	Office Software Applicat.	3 SHC			
***Statistics ~~(Select One~~)**						
	BUS 228	Business Statistics	3 SHC			
	~~MAT 151~~	~~Statistics I~~	~~3 SHC~~			
	~~MAT 155~~	~~Statistical Analysis~~	~~3 SHC~~			
Data Management(Select one)						
	DBA 115	Database Applications	3 SHC			
	DBA 120	Database Programming I	3 SHC			
	HBI 250	Data Mgmt and Utilization	3 SHC			
B.	**CONCENTRATION** *(if applicable)*					
C.	**OTHER MAJOR HOURS** *To be selected from the following prefixes:* ACC, AIB, BAF,BAS, BUS, CIS, CJC, CSC, CTI, CTS, DBA, ECM, ECO, ETR, GIS, HBI, HRM, INS, INT, ISC, ITN, LOG, MAT, MKT, OMT, OST, PAD, RLS, WBL, and WEB Up to three semester hour credits may be selected from the following prefixes: *ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA*					

CURRICULUM STANDARD

Effective Term
Spring 2014
*[2014*01]*

Curriculum Program Title	**Ophthalmic Medical Assistant (Diploma)**	Program Code	**D45510**
Concentration	**(not applicable)**	CIP Code	**51.1803**

Curriculum Description

The Ophthalmic Medical Assistant Program prepares individuals to perform ophthalmic procedures under the supervision of a licensed physician specializing in Ophthalmology. Course work includes lecture, laboratory, and clinical training in ocular measurements; ocular testing; lensometry; administering topical and oral medications; eye care; and caring for instruments.

Graduates are employed in medical institutions, clinics, or physician practices.

Graduates may qualify as candidates to take the Joint Commission on Allied Health Personnel, Ophthalmology National Certification Exam.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 1 D SBCCC 400.97 (3)]

I. General Education. Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

III. Other Required Hours. A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	**64-76**	**36-48**	**12-18**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 1 D SBCCC 400.97 (3)]

A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B. Concentration *(if applicable).* A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Ophthalmic Medical Assistant D45510

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. CORE		**34 SHC**	
Required Courses:			
OPH 103 Intro to Diseases of Eye 2 SHC OPH 104 Basic Ophthalmic Pharma 2 SHC OPH 105 Ophthalmic Clin Proc I 2 SHC OPH 106 Ophthalmic Med. Asst. Pract. I 7 SHC OPH 107 Ophthalmic Clin Proc II 2 SHC OPH 108 Ophthalmic Patient Care 2 SHC OPH 109 Ophthal. & Basic Refract 2 SHC OPH 110 Op Med Asst Practicum II 7 SHC OPH 150 Intro to Ophth Med Assist 2 SHC OPH 151 Ocular Anat. & Physiology 2 SHC			
Required Subject Areas: None			
B. CONCENTRATION *(Not applicable)*			
C. OTHER MAJOR HOURS BIO, BUS, CIS, COE, CSC, HEA, HSC, MED, OPH, PHY and *WBL *Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS, and SPA.* **WBL prefix will be available in fall 2014.*			

Approved by the State Board of Community Colleges on May 21, 1999; Revised 04/05/00; SBCC Revised 05/17/02; SBCC Revised 09/21/07; CRC Revised 09/23/08; SBCC Template Revised 10/17/08; CRC Revised—Electronic Only 10/18/11; Editorial Revision 06/26/13; Editorial Revision 09/06/13; CRC Revised 11/07/13.

CURRICULUM STANDARD

Effective Term
Spring 2014
*[2014*01]*

Curriculum Program Title	**Emergency Medical Science**	Program Code	**A45340**
Concentration	**(not applicable)**	CIP Code:	**51.0904**

Curriculum Description

The Emergency Medical Science curriculum provides individuals with the knowledge, skills and attributes to provide advanced emergency medical care as a paramedic for critical and emergent patients who access the emergency medical system and prepares graduates to enter the workforce.

Students will gain complex knowledge, competency, and experience while employing evidence based practice under medical oversight, and serve as a link from the scene into the healthcare system.

Graduates of this program may be eligible to take state and/or national certification examinations. Employment opportunities include providers of emergency medical services, fire departments, rescue agencies, hospital specialty areas, industry, educational and government agencies.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97 (3)]

I. **General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. **Major Hours**. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

III. **Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	**Diploma**	**Certificate**
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	**64-76**	**36-48**	**12-18**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 1D SBCCC 400.97(3)]

A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B.Concentration *(if applicable).* A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Emergency Medical Science A45340

			AAS	Diploma	Certificate
Minimum Major Hours Required			**49 SHC**	**30 SHC**	**12 SHC**
A. CORE *(Courses required for the diploma are designated with *)*			**49-52 SHC**	**40 SHC**	
Required Course:					
*EMS 110 EMT	8 SHC				
Required Subject Areas:					
Anatomy & Physiology. Select one:					
BIO 163 Basic Anatomy & Physiology	5 SHC				
BIO 166 Anatomy and Physiology II	4 SHC				
BIO 169 Anatomy and Physiology II	4 SHC				
Terminology. Select one sequence:					
MED120 Survey of Med Terminology I	2 SHC	*or*			
MED 121 Medical Terminology I	3 SHC	&			
MED 122 Medical Terminology II	3 SHC	*or*			
OST 141 Medical Terminology I - Medical Office	3 SHC	&			
OST 142 Medical Terminology II - Medical Office	3 SHC				
Required Subject Area: Advanced EMT/Paramedic (Choose one of the following sets)					
Advanced EMT					
EMS 120 Advanced EMT	6 SHC				
EMS 121 AEMT Clinical Practicum	2 SHC				
Paramedic					
*EMS 122 EMS Clinical Practicum I	1 SHC				
*EMS 130 Pharmacology	4 SHC				
*EMS 131 Advanced Airway Management	2 SHC				
*EMS 160 Cardiology I	2 SHC				
*EMS 220 Cardiology II	3 SHC				
*EMS 221 EMS Clinical Practicum II	2 SHC				
*EMS 231 EMS Clinical Practicum III	3 SHC				
*EMS 240 Patients with Special Challenges	2 SHC				
*EMS 241 EMS Clinical Practicum IV	4 SHC				
*EMS 250 Medical Emergencies	4 SHC				
*EMS 260 Trauma Emergencies	2 SHC				
*EMS 270 Life Span Emergencies	3 SHC				
EMS 285 EMS Capstone	2 SHC				
B. CONCENTRATION *(Not applicable)*					
C. OTHER MAJOR HOURS *To be selected from the following prefixes: BIO, CIS, COE, CSC, EMS, EPT, HSC, MED, ODL, OST, PED, and WBL.* Up to three semester hour credits may be selected from the following prefixes: *ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA*					

Approved by the State Board of Community Colleges on November 13, 1996; Revised 08/06/97, 10/15/99; Revised 01/29/01; Corrected 02/05/01; SBCC Revised 11/16/01; SBCC Revised 05/17/02; Corrected 03/09/04; Corrected 08/11/04; Corrected 04/12/05; SBCC Revised 09/21/07; SBCC Template Revised 10/17/08; Revised 05/04/11; SBCC Revised 11/15/13.

CURRICULUM STANDARD

Effective Term
Fall 2014
*2014*03*

Curriculum Program Title	**Dietetic Technician**	Code	**A45310**
Concentration	**(not applicable)**		***CIP Code: 51.3104***

Curriculum Description

The Dietetic Technician program prepares individuals to promote optimal health through proper nutrition by providing personalized services to meet client's needs, and ensure balanced diets. Dietetic Technicians work under the supervision of a registered, licensed dietician.

Course work includes content related to food, nutrition, communication, and management. The physical, biological, behavioral, and social sciences support these areas.

Employment opportunities include childcare centers, hospitals, correctional centers, public health agencies, retirement centers, rehabilitation centers, hospices, clinics, nursing homes, home care programs, or medical offices.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97(3)]

I. General Education. Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

III. Other Required Hours. A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	**64-76**	**36-48**	**12-18**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 1D SBCCC 400.97 (3)]

A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B. Concentration *(if applicable).* A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Dietetic Technician A45310

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. CORE	**52 SHC**	**NR**	
Required Courses:			
BIO 275 Microbiology 4 SHC CHM 130 Gen, Org, & Biochemistry 3 SHC CHM 130A Gen, Org, & Biochemistry Lab 1 SHC CUL 110 Sanitation & Safety 2 SHC DET 112 Introduction to Nutrition 3 SHC DET 113 Basic Food Science 3 SHC DET 114 Supervised Practice I 2 SHC DET 116 Food Mgt Sys & Nutr Concepts 3 SHC DET 117 Foodservice Management Systems 5 SHC DET 118 Supervised Practice II 4 SHC DET 221 Nutr Asses & Skill Develop 3 SHC DET 222 Nutr Counseling & Education 3 SHC DET 223 Community Nutrition 3 SHC DET 224 Supervised Practice III 2 SHC DET 225 Profession of Dietetics 2 SHC DET 226 Medical Nutrition Therapy 3 SHC DET 227 Dietetics Overview 1 SHC DET 228 Supervised Practice IV 2 SHC PSY 241 Developmental Psychology 3 SHC			
Required Subject Areas: None			
B. CONCENTRATION *(Not applicable)*			
C. OTHER MAJOR HOURS BIO, CHM, CIS, COE, CUL, DET, ENG, HEA, MAT, MED, NUT, PED, PSF, PSY, SOC, and WBL. *Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.*			

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