

**CURRICULUM COMMITTEE**  
**Approved March 23, 2017**

**Members Present:** Ms. Aida Brhane, Mr. Paul Chapman, Ms. Mary Charleza, Mr. Andrew Cornell, Ms. Carolyn Davis, Dr. Maggie Emblom-Callahan, Dr. Pamela Hilbert, Ms. Mitra Jahangeri, Dr. Julie Leidig, Mr. Frederick Markham, Dr. Jimmie McClellan, Dr. Mary Mosely, Dr. Sheri Robertson, Ms. Maryellen Ryan, Mr. Bernard Schmidt, Mr. Fernando Seminario, Dr. John Sound, and Mr. Scott Wood.

**Members Absent:** Dr. Nathan Carter, Dr. Diane Mucci, and Dr. Mel Schiavelli.

**Guests:** Ms. Daria Amato, Dr. Mark D'Antonio, Ms. Celeste Dubeck-Smith, Ms. Leigh Giles-Brown, Dr. la Gomez, Mr. Michael Harman, Dr. Katherine Hitchcock, Ms. Laura Jacyna, Ms. Sharon Karkehabadi, Dr. Willie Pomeroy, Ms. Jennifer Rainey, Mr. James Rucks, Mr. David Scheid, Dr. Tatiana Stantcheva, Mr. Charles Taylor, and Dr. Robert Wade.

**Minutes of the February 2017 Meeting**

Minutes of the February 2, 2016 meeting were approved as distributed. Dr. Robertson provided an update on the status of previously approved items.

**Contract Management AAS, Certificate and Course Revisions**

Mr. Charles Taylor (CON, WO) outlined changes requested to the Contract Management AAS, Contract Management certificate, and some CON courses. Mr. Taylor explained that it is crucial for the program to maintain equivalency with Defense Acquisition University (DAU) curriculum. The proposed changes include replacing CON 110 Contract Support Planning, CON 111 Contract Strategy Execution, CON 120 Strategic Focused Contracting I, CON 112 Contract Performance Assessment, CON 215 Intermediate Contract Support and CON 218 Advanced Contract Support with CON 104 Federal Acquisition Regulation (FAR) Fundamentals I, CON 105 Federal Acquisition Regulation (FAR) Fundamentals II, CON 121 Strategic Focused Contracting, CON 124 Contract Execution, CON 170 Fundamentals of Cost and Pricing Analysis, and CON 127 Contract Administration. All of the replacement CON courses are already in the NOVA catalog; those eliminated from the degree and certificate also should be removed from the catalog. Several of the CON courses to be added to the degree and certificate curricula (CON 121, 124, 170 and 127) currently have prerequisites that are no longer needed. Mr. Taylor has spoken with colleagues at Tidewater Community College; they do not use any of these courses but supported the proposed changes.

In addition, the faculty recommend removing PED 116 from the Contract Management AAS as it is no longer required by the VCCS or NOVA. The program emphasizes the use of good planning and execution to help relieve stress.

The faculty also recommend removing the second social science from the AAS. The removal of this plus PED reduces the total number of credits required for the AAS from 69 to 64.

Finally, the faculty propose adding ECO 120 Survey of Economics to the Contract Management certificate. This is because VCCS policy requires that at least 15% of each certificate program be in general education. Adding ECO 120 increases the total number of credits required for the certificate from 34 to 37. Mr. Taylor agreed with a suggestion to allow students to substitute ECO 201 for ECO 120 in both the AAS and the certificate for students who plan to transfer.

All of the proposed changes are supported by the dean and program advisory committee.

Dr. Mark D'Antonio (BUS, WO), who serves as a special assistant to the WO provost, noted that the campus also will offer Contract Management through its weekend college. It may expand to offering courses at MA.

The Curriculum Committee approved the proposed revisions to the Contract Management AAS, certificate and courses.

### **Diagnostic Medical Sonography Course Revisions**

With the support of Provost Cornell, Ms. Leigh Giles-Brown (DMS, MEC) explained that revisions requested for DMS 208 and 209 Ultrasound Physics and Instrumentation I and II, DMS 206 Introduction to Sonography and DMS 223 Introduction to Vascular Ultrasound have been discussed with and are supported by VCCS DMS colleagues.

DMS 208 and 209 Ultrasound Physics and Instrumentation I and II course summaries were updated to include more accurate course descriptions and more streamlined course objectives aligned with the National Education Curriculum (NEC) provided by the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS). In addition, Ms. Giles-Brown explained why NOVA would like to offer the course for 3 credits while Piedmont Virginia and Tidewater community colleges want to continue to offer them for 2 credits; she is therefore requesting that the courses be made variable credit for 2-3 credits at the VCCS level. She is also proposing variable course credit for DMS 206 Introduction to Sonography to allow 2-3 credits. NOVA will use the 3-credit version, but other VCCS colleges prefer to continue to use the 2-credit version. This will allow more time for the inclusion of patient care practical workshops and skills assessment. Ms. Giles-Brown also presented an updated course description for DMS 223 Introduction to Vascular Ultrasound to allow for hands-on skills training in a lab setting and better clarify course content.

Ms. Giles-Brown explained that Vascular Sonography and Echocardiography degree specializations were approved almost a decade ago but were never implemented at NOVA primarily due to a lack of sufficient clinical sites and a lack of faculty with the proper credentials and teaching experience in these specialty areas. Recently, the DMS Program conducted a survey of existing clinical sites to gauge interest in developing these specialty programs. As a result, NOVA has secured the commitment of several vascular and echocardiography sites that are willing to provide meaningful clinical education for our students. In addition, the program director has both the credentials and teaching experience to lead the development of the Vascular Sonography specialization and she has identified another potential faculty member with the proper credentials and experience necessary for the Echocardiography specialization. Importantly, adding these specializations will enable the DMS program to increase its student enrollment and satisfy a workforce need in the broader community. In addition, opportunities for multiple registry certifications will enhance student marketability. Thus, Ms. Giles-Brown proposed expanding the DMS program to activate the Vascular Sonography degree specialization in Fall 2017 and the previously-approved Echocardiography degree specialization as soon as an appropriate faculty member can be hired. If both programs are able to launch, she anticipates that 10-12 more students may be added to the DMS program for Fall 2017 with further expansion

possible in coming years. In addition, the surveyed clinical site coordinators indicated they would welcome the new specializations and that they believe graduates will be able to help fill current employment gaps.

The proposals are supported by the dean/provost, DMS medical director and the DMS Advisory Board. The Curriculum Committee approved the proposed changes to DMS 206, 208, 209, and 223

### **EMS Career Studies Certificate Revisions**

Mr. Cornell outlined the uses of the Emergency Medical Services (EMS) AAS and the three related career studies certificates. He stated that the current curricula can be confusing and not allow financial aid to cover some required courses if students do not take the three career studies certificates in sequence.

Mr. James Rucks (EMS, MEC) presented the proposal to revise the Emergency Medical Technician-Basic, Emergency Medical Technician-Intermediate and Paramedic career studies certificates. He explained that students enter the programs at several different levels of certification, with EMTs entering the Intermediate certificate, Intermediate EMTs entering the Paramedic program, and high school graduates entering the AAS program to which all three programs' courses can be applied. Students have a variety of career goals, and often do not start at zero and go through to the completion of the AAS degree. Because of the multiple entry and exit points, some overlap of the certificates and AAS is needed. All of the proposed revisions have been approved by the EMS Advisory Committee.

Specifically, Mr. Rucks proposed adding HLT 141 Medical Terminology (1 credit) and HLT 250 Pharmacology (3 credits) to the EMT-Basic career studies certificate, increasing total credits from 12 to 16. These changes are needed in order to prepare students to begin their ALS training and help students better understand their patients' medications. EMS 209 Advanced Pharmacology may be substituted for HLT 250.

Mr. Rucks suggested adding NAS 150 Human Biology (4 credits) be added to the EMT-Intermediate career studies certificate and removing EMS 213 ALS Skills Development (1 credit). NAS 150 was not originally included in the Intermediate curriculum because students must take it for the Basic program. However, now that it is clear that often students start with the Intermediate career studies certificate, NAS needs to be included so it is not a hidden prerequisite. The EMS course must be moved into the Paramedic career studies certificate due to changes in the National Registry of EMTs (NREMT) requirements. Total credits required for graduation will increase from 24 to 27 credits.

Mr. Rucks proposed several changes to the Paramedic career studies certificate. He recommended adding NAS 150 for the same reason as noted for the Intermediate program. He also advocated for adding EMS 213 ALS Skills Development (1 credit) and HLT 250 Pharmacology (3 credits). EMS 213 is needed to meet all of the Paramedic psychomotor competencies now required by the NREMT. Including HLT 250 brings the Paramedic curriculum in line with the Paramedic exam eligibility

requirements. These changes will increase the number of credits required for graduation from 18 to 26.

The Curriculum Committee approved the changes proposed to the EMT-Basic, EMT-Intermediate, and Paramedic career studies certificate programs.

### **Discontinue Hotel Management and Nutrition Management Specializations of Hospitality Management AAS**

Ms. Celeste Dubeck-Smith (Dean, AN) explained that the proposal to discontinue the Hotel Management and Nutrition Management specializations of the Hospitality Management AAS arose from informed pathways discussions. In our region, positions in nutrition require at least the baccalaureate, so students should be routed to the Science AS. The Hotel Management specialization does not lead to employment. Dr. Hilbert added that discontinuing the specializations will allow the college to focus resources on the aspects of Hospitality Management that do serve the region. Mr. Cornell supported “weeding the garden.” Ms. Dubeck-Smith added that the faculty are developing a related AS program.

There have been few graduates of either specialization, with 4 Hotel Management graduates and 3 Nutrition Management graduates in 2015. There are so few students that one required course, HRI 160, was cancelled two years in a row. Hotel Management students are being advised to complete the parent Hospitality Management AAS program and students who want a career in dietetics are being advised to prepare for transfer.

The proposed discontinuances are supported by the Hospitality Management Program Advisory Committee. The Curriculum Committee approved the discontinuance of the Hotel Management and the Nutrition Management specializations.

### **Revisions of the Geospatial Specialization of the Social Sciences AS and of the Geographic Information Systems (GIS) Career Studies Certificate**

Dr. Leidig introduced Mr. Michael Harman (GIS, LO), who is the second GIS program head. Dr. Leidig and Dr. Katherine Hitchcock (Dean, LO) explained that Mr. Harman is charged with establishing a new direction for the program. The original program head developed the Geographic Information Systems (GIS) career studies certificate first in response to needs expressed by the US Geological Survey; it was meant primarily for incumbent workers. The transfer-oriented Geospatial specialization of the Social Sciences AS was developed later to serve students who plan to earn a related baccalaureate.

Mr. Harman stated that the revisions to GIS courses are needed in order to provide additional laboratory time. Most GIS students are in the career studies certificate and need the hands-on experiences afforded by the laboratory hours. NOVA will use the 4-credit version of GIS 200 Geographic Information Systems I, 201 Geographic Information Systems II and 205 Geographic Information Systems 3-Dimensional Analysis instead of the 3-credit version of each course. To avoid making the programs exceed the allowable number of total credits, the Geospatial specialization will

require GIS 203 or 205 instead of requiring both courses. Combined, the changes will make the total credits required for graduation 60-61; currently the program requires 61 credits. The GIS career studies certificate will be revised to accommodate the increased credits for GIS 200, 201 and 205 by removing the Technical Elective. The total credits required will now be 28-29 rather than 28.

Dr. Emblom-Callahan asked how changing the number of lecture hours affected the lab hours. Mr. Harman explained that the courses would be scheduled for all required contact hours rather than having an open lab.

The program is a good choice for veterans. GIS can be applied to a variety of fields.

The specialization's footnote regarding science electives will be revised to be consistent with the new footnote suggested by the Liberal Arts and Social Sciences Learning Council.

The Curriculum Committee approved the changes proposed to the Geospatial specialization of the Social Sciences AS and the GIS career studies certificate.

### **Horticulture Technology AAS Revisions**

With the support of his associate dean (Ms. Laura Jacyna, LO), Mr. David Scheid (HRT, LO) proposed revisions to the Horticulture Technology AAS and its Landscape Design specialization. These changes were suggested after the Learning Council's review of the program and are supported by the provost, dean, and Horticulture Technology Curriculum Advisory Committee.

The faculty recommend eliminating the PED 116 requirement from the parent degree and the specialization. The course is no longer a NOVA degree requirement, but more importantly, students receive a great deal of physical wellness instruction within horticulture courses and should not have to pay for an additional credit. Faculty also recommend that in both curricula the 3-credit elective, which can be any HRT or VEN course not already required by the program, align with the Coordinated Internship or Cooperative Education requirement so that students' experiential learning will enhance the same knowledge, skills, and abilities.

Mr. Scheid explained that the faculty recommend removing 3 credits of HRT electives from the parent degree. The selection of electives has been narrowed to ensure that students are taking courses that are most relevant for the occupations associated with the degree. This will allow a reduction in the total number of credit required for graduation, from 67-68 credits to 63-64 total credits.

The faculty also recommend the elimination of 6 credits of HRT elective from the Landscape Design specialization. This leaves a more guided curriculum designed to prepare students for landscape design occupations. It reduces the total number of credits from 67-68 to 60-61.

Mr. Scheid stated that in both curricula, the choice of general education electives was greatly reduced to provide students with guidance in choosing courses that are most relevant for the occupations associated with the degree. Ms. Ryan noted that one of the suggested choices, ECO 115

Understanding our Environment: An Economic Introduction, rarely runs. Mr. Scheid agreed to replace that with ECO 120 Survey of Economics, which routinely runs at every comprehensive campus.

The committee also discussed prerequisites required for two of the recommended BUS electives, BUS 200 Principles of Management and BUS 260 Planning for Small Business. Neither course has a prerequisite listed in the catalog, but in the course content summaries faculty strongly recommend that students take BUS 100 before BUS 200 and that they use BUS 260 as a capstone course. Mr. Scheid agreed to remove BUS 200 and 260 as recommended BUS electives; however, the courses may be substituted should students with strong business backgrounds take them.

The Curriculum Committee approved the revisions to the Horticulture Technology AAS and its Landscape Design specialization with the amendments to the economics and business electives.

### **Biotechnology AAS and Biotechnology Lab Technician Career Studies Certificate Revisions**

Dr. Ia Gomez (BIO, MA) presented the Biotechnology faculty's proposal to revise the Biotechnology AAS and the Biotechnology Lab Technician career studies certificate. She explained that the proposed changes are a result of the program review and discussions at the Biology and Biotechnology Learning Council. They are supported by the Biotechnology Curriculum Advisory Committee. The programs are offered at the Manassas and Loudoun campuses, but Dr. Leidig stated that Loudoun has more or less decided to give it up.

As an applied degree, the Biotechnology AAS is designed to prepare students for employment. However, many students want to transfer after completing the AAS. The proposed revisions are designed to facilitate transfer. There was a great deal of discussion about trying to make an AAS a transfer program. Dr. Emblom-Callahan emphasized that even with the proposed changes, it is not a transfer degree. Students who know they want to transfer should be advised to enroll in the Science AS program instead. Dr. Gomez said that some students need to work now even though they plan to transfer eventually.

Dr. Gomez proposed revising the math requirement to recommend that students bound for George Washington University take MTH 163 Pre-calculus or a higher level math. It was noted that MTH 181 is acceptable for admission to George Mason University but not for the Biology BS there.

Placement into MTH 163 rather than MTH 151 would be the new program admission requirement. The admission process described in the catalog is not enforced, but she would like it to be.

Dr. Gomez recommended allowing students to take SDV 101 Orientation to Biological Sciences or the currently-required SDV 101 Orientation to Biotechnology.

The faculty recommend removing the PED 116 Lifetime Fitness and Wellness requirement from the AAS in order to reduce the number of credits required for graduation from 65-67 to 64-66. The change also will to ease transfer.

In both the AAS and the career studies certificate, Dr. Gomez proposed replacing the Biology Internship requirement with BIO 296 On-site Training in Biotechnology.

Dr. Gomez revised several footnotes to suggest courses that transfer well to George Mason University, but the program really does not transfer well to Mason. The Committee asked Dr. Gomez to remove references to Mason.

The Curriculum Committee approved the proposed revisions of the Biotechnology AAS and the Biotechnology Lab Technician career studies certificate as amended to remove references to George Mason University. The Committee reiterated that students wishing to transfer in Biotechnology should be placed in the Science AS program if they do not need to seek employment immediately upon graduating from NOVA.

### **Physics Discipline Review Implementation Report**

Dr. Tatiana Stantcheva (PHY, AL) represented the Physics Cluster responding to Dr. Robertson's questions as the Curriculum Committee Reader. The cluster has made great progress toward completing the action plan developed as a result of the most recent Physics discipline review.

Asked what the cluster was doing about the low success rate for ELI PHY courses, Dr. Stantcheva explained that the cluster has not been allowed to work with ELI to improve success. Ms. Sharon Karkehabadi, Associate Vice President for Academic Assessment, suggested that assessing student learning outcomes and disaggregating the data for ELI and dual enrollment sections would be helpful. Ms. Davis recommended letting them know well in advance that they will need to participate in SLO data collection. Several other committee members reported having difficulty gaining ELI permission to update courses. The Curriculum Committee asked that ELI representatives be invited to a future Curriculum Committee meeting to discuss curriculum. Members emphasized that the faculty own the curriculum.

Other questions asked by the Reader were answered to the Committee's satisfaction. The Curriculum Committee approved the first Physics Discipline Review Implementation Report.

### **System-wide New Nursing Curriculum**

Ms. Daria Amato (NUR, MEC) and Dr. Robert Wade (Acting Dean, MEC) explained that as of Fall 2018 the College will implement a new Nursing AAS curriculum that has been designed with system-wide participation. The new curriculum will be concept-based and will feature a new course prefix, NSG. Students who start under the old program will finish under it too because there is no one-to-one course equivalency.

### **Chemistry Discipline Review Readers Identified**

Dr. Sound volunteered to serve as one of the Readers for the Chemistry discipline review.