Curriculum Committee January 30, 2020 Recommendations (+ one from December 2019) and Administrative Council Actions taken February 25, 2020

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
Attachment A: Horticulture Technology AAS and Landscape Design Specialization Revisions The Life Sciences Pathway Council and the Horticulture Technology Advisory Board recommend several revisions to the Horticulture Technology AAS and its Landscape Design specialization. AAS: - Replace HRT 125 Chemicals in Horticulture with CHM 101 Introductory Chemistry I. This fulfills the Science with Lab elective and, with the elimination of HRT 125, makes room to require HRT 259 Arboriculture. - Replace HRT 246 Herbaceous Plants and HRT 247 Indoor Plants with HRT 201 Landscape Plants I and HRT 202 Landscape Plants II. The new courses align better with the seasons, making it possible to show real plants instead of photos. - These changes increase the total credits for the program from 63-64 credits to 65 credits. Specialization: - Remove HRT 251 Site Engineering and HRT 252 Landscape Construction Drawings, which have historically suffered from very low enrollment, often resulting in their cancellation --so an impediment to graduation. - Require HRT 259 Arboriculture. - Require a second HRT elective - Replace HRT 246 Herbaceous Plants and HRT 247 Indoor Plants with HRT 201 Landscape Plants I and HRT 202 Landscape Plants II. - Total credits (60-61) do not change.	Mucci	Leidig	Approved	Approve for Fall 2020 implementation	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
Attachment B: Architectural Drafting Certificate Discontinuance The pathway dean and provost for the Engineering & Applied Technology pathway recommend the discontinuance of the Architectural Drafting certificate. The program neither meets VCCS productivity standards nor industry need. The Architecture Technology AAS is still active. The faculty have been asked by the advisory board to create new, shorter, programs focused on specific skills currently valued by the industry.	Eftekhari	Hill	Approved	Approve for Fall 2020 implementation	
Attachment C: New ITP 1xx Python Programming I Course The IET Faculty propose the addition of a new ITP 1XX course, "Python Programming." Python programming is a trending programming language that is quickly becoming the most used programming language in industries such as cybersecurity, machine learning, artificial intelligence, web page and game development, GIS and data science. The course will serve as a programming elective in the IST AAS, the IST AAS Cloud Computing specialization and the Cybersecurity AAS.	Ford	Knights	Approved	Approve for Fall 2020 implementation	
Attachment D: IT AS Revisions Working with Barbara Hopkins, the IT faculty propose several revisions to the IT AS curriculum. These are designed to make the program more adaptable to the diverse requirements of our transfer partners. Remove • ITD 256 – Advanced Database Management • ITE 170 - Multimedia Software • ITE 221 – PC Hardware and OS Architecture • ITP 100 – Software Design • ITP 120 – Java Programming or ITP 132 C++ Programming I • ITN 100 – Introduction to Telecommunication	Ford	Knights	Approved	Approve for Fall 2020 implementation.	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
Replace them with 6 technical elective requirements. Students will select from a list of courses that transfer to the college or university they want to attend.					
Attachment E: IT Technical Support CSC Revisions The IET Steering Committee members proposed making changes to the IT Technical Support CSC to remove outdated content and add content that prepares students to work on a cloud environment. Students who earn the revised program will be prepared to earn five IT industry certifications. • A+ Hardware • A+ Software • Network+ • Security+ • AWS Certified Cloud Practitioner The proposed changes are: • Remove ITE 180 Help Desk Support Skills (3 cr) and ITE 182 User Support/Help Desk Principles (3 cr) to avoid duplication of course material now that other courses have been updated. • Add ITN 257 Cloud Computing Infrastructure & Services (3 cr) and ITN 260 Network Security Basics (3 cr).	Ford	Knights	Approved	Approve for Fall 2020 implementation.	
Attachment F: Web Design & Development CSC Revisions • Remove MTH 154 (3 cr); it was added to the certificate as a prerequisite/co-requisite for ITP 100 but the prerequisite for ITP 100 was changed to placement in MTH 154 or higher. • Add ITE 270 Multimedia Software II (3 cr) to the certificate. The ITE 270 Multimedia Software II class gives the students an advanced web page design skillset by refining their multimedia skills	Ford	Knights	Approved	Approve for Fall 2020 implementation.	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
and focus on project development using digital media; video clips, still images, and audio. • Add " OR ITP 140 Client-Side Scripting Languages" (4 cr) to the ITP 225 Web Scripting Languages (4 cr) requirement. ITP 140 Client-Side Scripting Languages focus on the fundamentals of Internet application design, development, and deployment using client side scripting language and ITP 225 Web Scripting Languages focuses on developing Web applications utilizing client-side and server-side scripting languages along with auxiliary tools needed for complete applications. • Remove ITE 115/119. They were in the program because ITE 115 was a prerequisite for ITE 170, but the prerequisite will be removed for next year. • Remove ITN 100 - Introduction to Telecommunications which was in the CSC when the networking topics discussed in the course were not commonly discussed in other areas of IT. Now they are included in other ITN courses.					
Attachment G: Mobile Application Development CSC The IT faculty propose a 20-credit Mobile Application Development CSC. The skills students learn in the proposed program will help them to build applications for smartphones and tablets. Most of the courses can be applied toward the IST AAS degree. Graduates of the proposed CSC will have completed coursework that provides the skills necessary to successfully complete the Google Associate Android Developer certification. The proposal includes ample evidence of employer and student demand. The program will be offered at AL, LO, MA and WO. It may attract CS majors as well as IT students.	Ford	Knights	Approved	Approve for Fall 2020 implementation.	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
Attachment H: Cloud Computing Technology CSC While very successful, the Cloud Computing specialization of the IST AAS does not address the needs of current professionals. Our industry partners have encouraged us to find more efficient ways to prepare students for the workforce. The proposed Cloud Computing Technology CSC includes 26 stackable credits, drawing all courses from the specialization. Graduates of the proposed CSC will complete coursework aimed at providing the skills necessary to successfully complete CompTIA's Security+, Network+ and Linux+ certification exams, in addition to the AWS Certified Cloud Practitioner. Students already possessing these certifications can satisfy nearly 50% (12 credits) of the proposed Cloud Computing CSC, allowing those with past experience to directly progress into more advanced cloud computing coursework. Furthermore, the proposed Cloud Computing CSC includes the coursework necessary to prepare students with IT experience for the more rigorous AWS Associate-level Certified Solutions Architect certification. The program will be offered at the five comprehensive campuses.	Ford	Knights	Approved	Approve for Fall 2020 implementation	
Attachment I Data Center Operations CSC: To address the needs of local employers as the number of data centers in our regions explodes, the IT faculty propose a CSC in Data Center Operations. The 26-credit program uses only courses already part of the Engineering Technology AAS Data Center Operations specialization. The CSC focuses on technical skills in math, electrical circuits and safety, motor control, power distribution and fiber optics, and how to apply that knowledge to the operation of a data center. The CSC responds to the desperate need of local employers, who hire students in our specialization before they can finish the degree. It prepares students for entry level positions and internships which tend	Ford	Knights	Approved	Approve for Fall 2020 implementation	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
to lead to full-time jobs. As noted above, the courses can all be applied to the AAS specialization when students are ready for additional education. Already there are $30,000 in scholarships available to our Data Center Operations students. Employers come to class to recruit them. The CSC will be offered at LO, and students will be able to complete all but 2 courses at MA.					
Attachment J: Engineering Technology Technician CSC NOVA worked directly with leadership and staff at Micron Technology, BAE Systems, Lockheed Martin, Prince William County Service Authority, the Loudoun County data center community and the Night Vision and Electronic Sensors Directorate with the U.S. Army at Ft. Belvoir to complete a needs assessment of the region's technology workforce. The changes integrated into NOVA's Engineering Technology AAS degree have created an employment pipeline; many students after completion of only two semesters of coursework have been placed directly into high-wage internships. This highlights the need for a more short-term NOVA credential to support our student and partner needs. After continued engagement with our industry partners, the IET faculty propose the following Engineering Technology Technician CSC. This 27-credit program captures the key elements from the Engineering Technology degree required for entry level placement as an intern in Engineering Technology. The proposed CSC coursework emphasizes development of technical skills and students' development as an industry professional. All of the courses are found in the parent Engineering Technology A.A.S. degree. With funding support from the SCHEV Internship Partners Program, NOVA has partnered with YearUp and Micron to	Ford	Knights	Approved	Approve for Fall 2020 implementation	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
create a spring 2020 YearUp cohort of Engineering Technology students. The courses proposed in the Engineering Technology Technician CSC match the course of study required by the Engineering Technology YearUp students. If successful, these students will have an opportunity to interview with Micron Technology for an Engineering Technology internship. This new CSC will be offered at MA, with all but one course also offered at LO. Current students will be made aware of this new CSC, which will also serve as a new marketing tool for students and employers who are looking for a package of courses that will allow quicker movement into the workforce as an engineering technology intern or entry-level technician.					
Attachment K: Accounting Information Security with Data Analytics CSC The Accounting faculty, the Accounting Steering Committee, the Accounting Curriculum Advisory Board, the Business and Hospitality Pathway Council, select recruiting agencies, select four-year institutions, and prospective students support the development of an Accounting Information Security (AIS) program. There is an ever-growing demand for individuals in the accounting industry who understand how to use technology to account for and analyze financial data in business. This CSC program is designed to provide knowledge in information security and analytics to accounting and/or audit specialists. While some accounting classes briefly cover technology in accounting, this new program will give students the opportunity to truly bridge the gap between the presentation of financial statement information and the financial systems that process and support it all. The CSC in AIS will help prepare students for the Certified Information Systems Auditor (CISA) exam and Certified Information Technology Professional (CITP – exclusive to CPAs) exam.	Beringer	Haggray	Approved	Approve for Fall 2020 implementation	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
Graduates will be prepared to earn: • a credential of Certified Information Systems Auditor (CISA), administered by the Information Systems and Audit and Control Association (ISACA). Retrieved 11/11/19 from: http://www.isaca.org/Certification/CISA-Certified-Information-Systems-Auditor/Pages/default.aspx and/or • a credential of Certified Information Technology Professional (CITP), administered by the American Institute of CPAs (AICPA). Retrieved 11/11/19 from: https://www.aicpa.org/membership/join/citp-exam.html. The CISA certification does not require a four-year degree to sit for the exam. It is also currently a certification that is highly sought after and in demand in the audit and consulting industries. The CISA is so in demand that recruiters for the local consulting industries are willing to consider individuals without a four-year degree. This program has the potential to expand, as well, to an AAS degree that would be available to students without any prior accounting or information security knowledge, enabling them to potentially procure a job directly after graduating and passing the CISA exam. The CITP, which can only be taken after passing the CPA exam, makes an individual marketable in his or her industry on an exponential scale. This program will consist of 28 credit hours and is comprised of existing courses offered at NOVA, with the exception of one accounting course (ACC 263) that is in the VCCS Master Course File. Faculty have agreed to develop					

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
a NOVA course content summary in time to offer ACC 263 in Spring 2021. The program will be offered at AL, AN, LO, MA and WO.					
Attachment L: Automotive Diagnosis & Repair CSC The Automotive faculty propose a new CSC program in Automotive Diagnosis & Repair that will create a seamless pathway from the entry level CSC program in Maintenance and Light Repair to the AAS degree program in Automotive Technology. The proposed CSC will: • Help fill a workforce need by encouraging students who are traditionally non-academic to pursue post-secondary education in automotive and become qualified, trained, and honest technicians • Provide a one-year track to employment at the novice diagnostic level which has attracted the attention of vehicle manufacturer programs such as Subaru-U, area dealerships, fleets and independent shops to contribute to our program • Provide students access to apprenticeship opportunities which lead to multiple automotive career opportunities • Prepare graduates who take advantage of field experience opportunities while in the program to apply for their Virginia State Safety Inspector's license from: https://law.lis.virginia.gov/admincode/title19/agency30/chapter70/section31/ • Allow students to earn the EPA section 609 certification The program will consist of 29 credit hours and is comprised of courses already offered at NOVA. The Automotive Repair CSC will be offered at both the Alexandria and Manassas Campuses where the resources and courses are currently available.	Eftekhari	Hill	Approved	Approve for Fall 2020 implementation	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
The automotive industry has a major technician shortage which is expected to reach a critical level in the next 3 years due to retirements and the typical turnover. This shortage has led to increased involvement from local industry, including the Beyer Automotive group who has connected us with the Subaru University manufacture program. Partnerships with corporate manufacturers gives faculty and students access to free training, component donations, and Subaru has already donated a 2018 Outback plus component donations just to help us get started. Many more of these large groups including Metro, Sheehy stores, Virginia Tire and Auto, WANADA and others have started to partner with us in order to find a solution to this ever-growing problem.					
Attachment M: Diesel Basic Repair and Diesel Preventative Mantence CSCs plus Diesel Mechanics Technology CSC Discontinuance The Manassas Campus has offered a Diesel Mechanics Technology CSC since Spring 2008. For the past several years, the program has produced few FTES and fewer graduates. According to the 2014-215 through 2018-2019 Fact Book, there were 5, 0, 5, 2, 5 graduates in the respective years covered. However, according to the Virginia Bureau of Labor Statistics, in the Washington DC metropolitan area, the current employment estimates for Bus and Truck Mechanics and Diesel Engine Specialists is approximately 2,850 jobs with a mean hourly wage of $26.75 and an average annual salary of $55,960. The employment rate is near 100%. There are currently 45 diesel positions for Manassas alone in the Indeed.com search results. A search of other job seeking sites on the internet provided similar results. The advisory board assures us that the new CSCs will enhance employability. Some employers help pay for	Eftekhari	Hill	Approved	Approve both CSCs for Fall 2020 implementation. Approve discontinuance of the current Diesel Mechanics Technology CSC for Fall 2020.	

Proposal All proposals are fully described in the attachments.	Sponsoring Pathway Dean(s)	Sponsoring Pathway Provost(s)	Curriculum Committee Recommendation	Staff Recommendation	Admin Council Action
education and some offer a signing bonus. A representative of the Diesel Program Advisory Board attended the Curriculum Committee meeting and stated that his company is very excited about the proposed CSCs. His company is one that offers a signing bonus and tuition reimbursement. There are no full-time DSL faculty, so Automotive faculty have been involved recently in trying to update the program. The Diesel advisory board was revitalized two years ago and has provided advice on how to better serve the industry and our students. The advisory board strongly encourages NOVA to discontinue the current Diesel Mechanics Technology CSC and replace it with two new CSCs. The advisory board members were heavily involved in creating these curricula and have provided letters of support. As recommended by the advisory board, the Automotive faculty developed two new CSCs, one introductory (Diesel Basic Repair) and one advanced (Diesel Preventative Maintenance). These new CSCs delete unnecessary courses, rearrange the order of some courses, and will add newer more current courses from the VCCS Master Course File. **Diesel Basic Repair CSC:** This program is designed to introduce the fundamentals of diesel equipment repair and provide instruction in hydraulic systems, diesel engine overhaul and tune-up, hydraulic and braking systems. The curriculum provides practical training and the option of on-the-job experience through cooperative education. Graduates will gain a basic background in basic diesel equipment technology principles. Graduates will be prepared for employment as an entry-level diesel technician in the following areas: diesel equipment repair, diesel truck repair, supervisor, shop foreman, heavy duty					

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repair, purchasing agent, salesperson, power train repair, fuel injection repair, diesel engine repair, automotive diesel repair, and marine diesel repair. The more advanced Diesel Preventative Maintenance CSC is intended for students who have completed the Diesel Basic Repair CSC, but students with significant industry experience will also be admitted. **Diesel Mechanics and Preventative Maintenance CSC:** This program is designed to expand the skills necessary to service and repair diesel equipment. The courses included in this program will further train students in the servicing and repair of diesel engines, electrical systems, transmissions, and preventative maintenance inspection (PMI). The curriculum provides practical training and the option of on-the-job experience through cooperative education. Graduates will gain an expanded background in advanced diesel equipment technology principles and some business skills. The program prepares graduates for employment in the following areas: diesel equipment repair, diesel truck repair, supervisor, shop foreman, heavy duty repair, purchasing agent, salesperson, power train repair, fuel injection repair, diesel engine repair, automotive diesel repair, and marine diesel repair. Graduates will be prepared to sit for T2 and T8 ASE exams.					
Attachment N: Music AFA Proposal The Music faculty propose to offer an Associate of Fine Arts degree in Music that is primarily designed to prepare students to transfer into a Bachelor of Music (BM) program. The curriculum of the proposed Music AFA could also in					

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many circumstances be applicable to a Bachelor of Arts (BA) in Music, Bachelor of Fine Arts (BFA) in Music or Music Education, or Bachelor of Science (BS) in Music Education program. If approved, the AFA will replace the Associate of Arts in Music and the Associate of Applied Arts in Music programs that NOVA currently offers. The AFA will help students gain admission to selective Music programs, where an audition to the music department is needed in addition to regular application and acceptance to the four-year institution. It will be offered at AL, AN and LO, which are the campuses that currently host the Music AA and AAA. No facilities, equipment or faculty will be needed other than those we will need if we just keep the Music AA and AAA.					