TECHNICAL COLLEGE OF THE LOWCOUNTRY AREA COMMISSION
January 17, 2023
Beaufort Mather Campus
ZOOM: https://tclc.zoom.us/j/5029645792
Public Comment: areacommission@tcl.edu
Public Comment: areacommission@tcl.edu

MINUTES

COMMISSIONERS PRESENT

Randy Dolyniuk, Chairman
Sheree Darien, Vice Chair
James Boozer
David Smalls
Richard Toomey
Heath Duncan

STAFF PRESENT

Richard Gough, President
Leslie Worthington, VP Academic Affairs
Nancy Weber, VP Student Services
Rodney Adams, AVP Student Affairs
Ashley Yoakum, Controller

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The January meeting of the Area Commission for the Technical College of the Lowcountry was held on Tuesday, January 17, 2023 at 9:00 in the President's Boardroom on the Beaufort Mather Campus. Prior to the meeting media were notified and provided with the agenda and the Zoom link. An email address for public comment is published on the agenda.

CALL TO ORDER AND APPROVAL OF AGENDA

Chairman Dolyniuk called the meeting to order at 9:05 and declared a quorum was present. He then called for a motion to accept the meeting Agenda as presented. Mr. Boozer made the motion which was seconded by Dr. Toomey. Motion carried.

CONSENT AGENDA

The Consent Agenda, consisting only of the Minutes of the November-December 2022 meeting, was presented to the Commission in advance of today's meeting. Mr. Dolyniuk called for a motion to accept the Consent Agenda as presented. Mr. Boozer made the motion which was seconded by Dr. Toomey. Motion carried.

Cyber Security

Laura Dukes, Dean for Business Technology, presented the College's Cyber Center of Excellenc (CCE), *"Detect, Respond, Recover"* . The complete curriculum for the Cyber Security degree is attached to these

Minutes. The progam will prepare students for for national industry certifications such as CompTIA Network+ and Security+, Linux+, CYSA+ Cybersecurity Analyst, CEH – Certified Ethical Hacker, and more. **Students learn the essential concepts of cyber-defense and incident response, with a practical hands-on approach to security risk analysis and management. Students learn how to ethically hack in order to understand how adversaries will attack their organization's assets. Ensuring the confidentiality, integrity and availability of online information is the primary objective of the cybersecurity professional. The knowledge and skills needed to detect, respond and recover from modern cybersecurity threats are the focus on the cybersecurity degree. Ms. Dukes said that there are ~600,00 open jobs in Cyber Security nation wide and it's important to note that the requirements are industry security designations and certificates over 4-year degrees.   The desired applicant profile is often gamers or those on the autisim spectrum as both these groups tend to excel in the field. Starting salaries in Cyber Security are in the $80-$120k range.**

Current accomplishments include:
- **New AAS Degree approved by SCTS and SACSCOC**
- **Changes to certificate programs to coordinate with the second year of the AAS Degree**
- **National Security Agency-Center of Academic Excellence-Cyber Defense (NSA-CAE-CD) Designation status. The application is pending with approval expected Spring 2023**
- **General Cyber grant for 2023 will support Cyber Summer Camps for Beaufort County School District students held at the College.**

The next step is to continue building the Cyber Security Center of Excellence which is a model for the community.
- **Creat an Institutional Security Operations Center (SOC) with a grant from the City of Beaufort**
- **Pusue Naval Warfare Informaion Center (NWIC)**
- **Place interns internally and externally. NWIC has agreed to host several interns.**
- **Develop appropriate short certificates for military in risk analysis and management and other areas.**
- **Investigate with MCAS and Parris Island collaboration of course offerings and student recruitment**
- **Cyber Cafe**
- **Develop and Implment policy and procedures at the Institutional level.**
- **Create a cross-department Cyber Incident Response Team (CIRT) to respond to incidents**

Additionally, Ms.Kern's team – the Cyber Warriors- came in #2 in the National Cyber League competition.
In further news for the Business and Technology division, Ms. Dukes said that the College is offering HVAC as a dual enrollment program at the Thunderbolt Career Center in Colleton County and are in talks to bring Cyber Security, general business, and logistics courses to the dual enrollment offerings in Colleton. She also said the enrollment in General Business and Accounting is very high and there is great demand in the job market for accounting majors with Associate Degrees. Additionally, the College's Paralegal program has entered into a strong arrticulation agreement with Lander University in Gaffney, S.C. Lander has also been on the cutting edge of On Line course delivery. Ms. Dukes also noted that the Cosmotology program currently has a one year

waiting list.

SCATCC REPORT

Mr. Smalls reported that the annual Commissioner's Day of Learning will be on Wednesday, Febraury 1. The day begins with new Commissioner orientation at 9:00 followed by an awards lunchon and reception with the legislative delegation. The afternoon will consist of several educational breakout sessions and will conclude at about 5:00 pm.

PRESIDENT'S REPORT

Dr. Gough reported on the following actions and activites:

- Janis Hoffman, VP Administrative Services has retired effective January 30. Ashley Yoakum, Controller, will serve as Interim Director of the Business office and will report to Dr. Gough. Directors of IT, Facilities Management, and Security will report directly to Dr. Gough in the interim.
- Dr. Gough reported that he has met with Andy Patrick and the Pinnacle Charter group about their interest in building a Charter School with CTE emphasis in the area of TCL's New River campus and partnering with the College to deliver dual enrollment courses. The school is to be called Marshview. Dr. Gough said he will keep the Commission informed of any further developments.
- Dr. Gough asked VP Weber to report on Enrollment. Ms. Weber said that FTE is UP 10% over pre-covid enrollment in 2019. She attributed the increase the development of 'mini-mesters' , 7 week condensed courses, and a strong adjunct pool which makes adding sessions of high demand courses much easier. Ms. Weber said that the Navigators have had over 900 appointments s since we returned from winter break. Referring to the Title III Guided Pathways grant, Ms. Weber said that all the processes put in place through this grant are coming to fruition. She said that having a full team in the Financial Aid departement along with the good working relationship between FA and the business office are also contributing to a robust enrollment. She also noted that the College has 531 Dual Enrollment students registered which is a record number.
- Dr. Gough said that he is working with the Business office and Academic Affairs to review and standardize course fees and will discuss the this with the Commission at a future meeting.
- Dr. Gough reminded the Commission that we are awaiting their review and approval of the Policies that have been updated and the Commission committed to having their review completed by the February meeting.
- Dr. Gough reported that the College will host the opening day for the 2nd Annual African American History Education Conference on February 10. The Mather Alumni group is partnering with the Beaufort County School District to integrate the Mather story into the curriculum. The Mather Alumni group has organized as a 501c3 orgaization. They applied for and recieved a South Carolina Humanities grant and are developing a Strategic Plan.
- Staff and Faculty received the Employee Feedback Survey today. This survey is a SACSCOC

requirement. Dr. Gough will share the results with the Commission when they are compiled.

- **Dr. Gough will attend the Beaufort County Economic Development Corporation's CONVERGE Economic Summitt on January 30. The is the second annual CONVERGE conference.**
- **VP Weber and VP Worthington have an appointment with the School District leadership in Hampton this week to clarify our Dual Enrollment MOU and be sure that they are on track.**
- **Capital Projects: Moor Hall renovation is in progress and the new look is taking shape. Coleman Hall and building 6 will begin as soon as possible when Moor Hall is completed.**

CHAIRMAN'S REPORT

Chairman Dolyniuk congratulated TCL's Marketing team for winning two National Council for Marketing and Public Relations (NCMPR) Medallion Awards; a gold Medallion for the 2022 State of the College report and a bronze Medallion for its program flyers. The awards, chosen from nearly 300 entries, recognize excellence in design and communication at community and technical colleges at the district level.

Mr. Dolyniuk thanked Ms. Yoakum for stepping up as Director of the Business office after Ms. Hoffman's retirement.

He was recently asked to talk to the Public Service Commission about the Technical College of the Lowcountry with regard to their training needs. The majority of the people in water treatment are over 50 and as they approach retirement there is a great need to establish a pipeline of younger water treatment professionals. Water operators are frontline environmental health and safety workers who ensure the nation has access to safe water sources. Researchers estimate that as many as half of the nation's 115,000 water treatment operators will retire in the next five years and that there won't be enough qualified personnel available to replace them. Central Carolina Technical College in Sumter offers water treatment certificate courses in partnership with Clemson University's College of Engineering and PSI, a testing and certification company. Dr. Gough will look into the program and the demand in our service area.

Mr. Dolyniuk closed his report by saying how excited he is about the College's Cyber Security program and the partnership with the South Coast Cyber Center.

He reminded the Commission that the day and a half planning retreat is coming up on March 23 and 24 and ask them to give some thought to what they want to accomplish at the Retreat and they will discuss it at the February meeting. The Minutes from last year's Retreat will be sent to the Commissioners for reference.

Ms. Darien added that in 2019, she and General Brown were speaking of some future course goals for the College to remain relevant and positioned for the growth with regard to the Ocean Terminal. She said they talked about the need for Cyber Security, Logistics, and Trucking courses and here we are barely 4 years later and having come through a global pandemic and these three industries are on the front burner for TCL. She said she was so proud of the team. Her words were greatly appreciated .

ADJOURNMENT

Having no further business Mr. Dolyniuk adjourned the January meeting of the Technical College of the Lowcountry Area Commssion at 10:40 am.

Respectfully Submitted,

Ann Cullen

APPROVED:

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Randy K. Dolyniuk   **James Boozer**
Chairman   **Secretary**

Technical College of the Lowcountry
Applied Associates (AAS) in Cybersecurity
(Coming Spring 2023)
Yellow highlighted courses are currently available in Cyber certificate or Computer Tech degree

Required Major Courses			42
IST 166	Network Fundamentals	This course is a study of local area networking concepts through discussions on connectivity, communications and other networking fundamentals. The course is designed to prepare the student to be successful in completing industry network fundamental certification exams. Includes all competencies for CompTIA Network+ exam. Prerequisites: RDG 100, MAT 032	3
CYB 110	Introduction to Cybersecurity	This course provides an introduction and broad overview to the knowledge domains of cybersecurity. Topics of study include: the need for cybersecurity, malicious activity, the Internet and Intertnet of Things (IoT), access controls, security operations and administration, risk management, cryptography, network security, certification and law. Prerequisites: RDG 100, MAT 032	3
CPT 168	Programming Logic and Design	This course examines problem-solving techniques applied to program design. Topics include a variety of documentation techniques as means of solution presentation. *This course also includes a general introduction to computer concepts and an intro to Python* Prerequisites: RDG 100, MAT 032	3
COL 106	Freshman Seminar	This course is a study of the purposes of higher education and provides a general orientation to the functions and resources of the college. The course is designed to help freshman adjust to the college community, develop a better understanding of the learning process, and acquire essential academic survival skills	1
CYB 111	Cybersecurity Policy and Implementation	This cybersecurity course goes deeper into security policy and implementation. A sound information security and cybersecurity program begins with security policy that is generated by the executive leadership. Security frameworks such as the COBIT and the NIST Cybersecurity Framework are introduced. Prerequisites: RDG 100, MAT 032	3
CRJ 233 xcross as CYB 233	Cyber Crimes and the Law	This course examines the problem of crime involving computers and the strategies used for identification, investigation and prosecution. Prerequisite: RDG-100	3
IST 269 CYB 269	Digtal Forensics	This course examines advanced technical aspects of digital computer evidence to include detection, collection, identification, and preservation. Emphasis is placed on specific tools and methods for extracting deleted or destroyed computer-related evidence. *(EC Council CHFI Material being piloted by Floyd Henderson)* Prerequisites: CYB 110 or Instructor approval	3
CPT 257	Operating Systems	This course examines the theory of operating systems and how the operating system theory is implemented in current operating systems. Prerequisite: RDG-100, MAT 032	3
IST 112	Network Certification Exam Prep	The objective of this course is to help the student assess readiness for industry networking certification exams. The course will help the student assess and define their current knowledge base in the networking field, and then develop a study plan for improving on weak knowledge domains. Study skills are reinforced and practice simulation tests are used. Prerequisite: RDG-100, MAT 032	1
CYB 112	Security Certification Exam Prep	The objective of this course is to help the student assess readiness for industry security certification exams. The course will help the student assess and define their current knowledge base in the networking field, and then develop a study plan for improving on weak knowledge domains. Study skills are reinforced and practice simulation tests are used. Prerequisite: RDG-100, MAT 032	1
IST 190	Linux Essentials	This course will provide students with the fundamental knowledge and concepts of the LINUX operating system, including command line functions, file systems, user and group administration, process management, text editors, and network applications. Students are prepared for Linux+ Prerequisite: RDG-100, MAT 032	3
IST 291	Network Security I	This course is the study of intro levels of security processes based on a security policy, emphasizing hands-on skills in the areas of secure perimeter, security connectivity, security management, identity services, and intrusion detection. The course prepares students to manage network security. Prerequisites: IST 166 or IST 220 or instructor approval	3
CYB 293 *currently offered as* IST 294	Attack Vectors (Red Teaming) / IT Data Assurance II	This course introduces methods for attacking and compromising an array of systems including authentication systems, passwords, networks, computers, people and peripheral devices (IoT). Participants will develop skills necessary to participate in Red Team ethical hacking exercises. Students will participate in ethical hacking competitions. Prerequisites: IST 166 and CYB 110 or instructor approval	3

Required Major Courses (Continued)			3
IST 292	Network Security II	This course is the study of advanced security processes based on a security policy, emphasizing hands-on skills in the areas of secure perimeter, security connectivity, security management, identity services, and intrusion detection. The course prepares students to install/configure secure firewalls. ...and SIEM, SOARs (cyber infrastructures) with Powershell scripting. Prerequisites: IST 291	3
CYB 294 *currently offered as* IST 293	Incident Response (Blue Teaming) / IT Data Assurance I	This course inttroduces the skills and techniques necessary to detect, respond and recover from cyber incidents. The goal is to learn to integrate business continuity / disaster recovery plans into the incident response process. This is a writing intensive course, which requires each student to individually document cyber security incidents and communicate the impact of those incidents to the organization. Peer writing evaluation will help students to consider how effective their written communication skills are. Prerequisites: IST 166 and CYB 293 or instructor approval	3
CYB 282 *currently offered as* CPT 282	Security and Risk Analysis / Info Systems	This course includes a comprehensive overview of risk management and its implication on infrastructure, compliance and organizational objectives. Risk as it pertains to people, processess and technology is addressed. Modern frameworks are used to teach risk analysis and mitigation. Students will learn to write security policy and produce effective implementation plans. Prerequisite: RDG-100, MAT 032	3

Required Elective Courses (Pick 2)			6
CPT 118	Professional Practices in Information Technology	This course emphasizes the interpersonal and technical skills required of entry-level IT professionals. Course content includes guidance on building a career toolkit, as well as topics such as projecting a professional image, job seeking skills, ethics, and providing good customer service. Prerequisites: RDG 100, MAT 032	3
IST 193	Linux Security Admin	This course will provide students with the skills necessary to implement and administer basic LINUX security policies, including authentication, securing network applications, system monitoring, encryption, and others. Advanced Ethical Hacking (CEH) (Kali Linux / Metasploit) "Advanced Linux". Prerequisites: IST 190 Or IST 191 Or Instructor Approval	3
CRJ 236	Criminal Evidence	This course is a study of the established rules of evidence from arrest to release in the administration of criminal justice. (Includes crime scene investigation exercises where digital evidence is planted for retrieval and forensic analysis) Prerequisite: CRJ 233 or instructor approval	3
IST 298	Advanced Cloud Computing	This course covers advanced concepts of cloud computing. Topics include how to implement, administer and troubleshoot private and public cloud services, delivery models, virtualization infrastructures, storage and networks. Advanced Cloud Security (Cloud+). Prerequisite: IST 166 or instructor approval	3
IST 261	Advanced Network Administration	This course is an advanced study of the networking operating system. Topics include installation upgrades, IP services, internet infrastructure, advanced server management and security, NDS management, and server optimization. Prerequisites: IST 166 and CPT 257 or instructor approval	3
CYB 286	Cybersecurity Internship I	This course provides students with entry level work experience in a cybersecurity operations support role. Students will learn skills in their field and develop a job skills portfolio. Prerequisite: Advisor Approval	3
CYB 287	Cybersecurity Internship II	This course provides students with an intermediate level work experience in a cybersecurity operations and support role. Students will develop a job skills portfolio for submission. Prerequisite: Advisor Approval	3
CYB 285	Cybersecurity Capstone	This course integrates the knowledge and skills gained through previous coursework and experience to develop and implement risk management, vulnerability assessment, threat analysis, and incident response plans. Prerequisite: Advisor Approval	3

General Education Credits (5 courses) ENG 101, PSY 201, SPC 204, Humanties Elective and either MAT 110 or MAT 120	15
GRAND TOTAL CREDITS required for degree	**63**

TECHNICAL COLLEGE OF THE LOWCOUNTRY

Associates in Applied Science - Cybersecurity

Note: Yellow highlighted course are cybersecurity certificate courses. Green are high school dual enrollment courses.

Term	Course	Desc	Instructor	Credits
Fall 1	IST 166	Intro Networking	Beach	3
Fall 1	CYB 110	Introduction to Cybersecurity	Kern	3
Fall 1	CPT 168	Programming Logic & Design	Curry / Smith	3
Fall 1	COL 106	First Year Seminar		1
Fall 1	GEN ED	see General Educ Requirement…		3

Term	Course	Desc	Instructor	Credits
Spring 1	CYB 111	Cybersecurity Policy & Implementation	Kern	3
Spring 1	CYB 233	Cyber Crime & Law	Kern	3
Spring 1	CYB 269	Digital Forensics	Henderson	3
Fall 1	GEN ED	see General Educ Requirement…		3

Term	Course	Desc	Instructor	Credits
Summer I	CPT 257	Operating Systems	Kern	3
Summer I	IST 112	Network Certification Exam Prep)	Kern	1
Summer I	CYB 112	Security Certification Exam Prep	Kern	1
Summer I	CYB 282	Security and Risk Analysis	Kern	3
Summer I	GEN ED	see General Educ Requirement…		3

Term	Course	Desc	Instructor	Credits
Fall 2	IST 291	Network Security I	Springer	3
Fall 2	CYB 293	Attack Vectors (Red Teaming)	Kern	3
Fall 2	IST 190	Linux Essentials	Henderson	3
Fall 2	Elective1	Pick from list to right		3
Fall 2	GEN ED	see General Educ Requirement…		3

Term	Course	Desc	Instructor	Credits
Spring 2	IST 292	Network Security II	Springer	3
Spring 2	CYB 294	Incident Response (Blue Teaming)	Kern	3
Spring 2	CYB 282	Security and Risk Analysis	Kern	3
Spring 2	Elective 2	Pick from list to right		3
Spring 2	GEN ED	see General Educ Requirement…		3

CPT257 replaces IST 165 Implement Win Dir Svs (Cyber Cert) — *Offered in both Summer or Spring*

Offered in both Summer or Spring

Offered in both Summer or Fall

Offered in both Summer or Spring

Cyber Core	42
Cyber Electives	6
Gen Eds	15
TOTAL	63

Electives (Pick 2 courses)

Course	Desc	Term	Instructor	Credits
CPT 118	Professional Practices in Information Technology	Any	Curry or Smith	3
IST 193	Linux Security Admin	Summer	Henderson	3
CRJ 236	Criminal Evidence	Summer	Ricks	3
IST 298	Advanced Cloud Computing	Fall	Kern	3
IST 261	Advanced Network Administration in cloud	Summer	Springer	3
CYB 286	Cyber Internship I	Any	Kern	3
CYB 287	Cyber Internship II	Any	Kern	3
CYB 285	Cybersecurity Capstone	Spring	Kern	4-3

General Education Requirements (15 credits)

ENG 101	English Composition I			3
PSY 201	General Psychology			3
SPC 205	Public Speaking			3
**	Humanities Elective			3
MAT 110 or MAT 120	College Algebra or Probability and Statistics			3

**STUDENT MUST TAKE 3 CREDITS FROM THE FOLLOWING, ART-101, ART-105, ENG-201, ENG-202, ENG-203, ENG-205, ENG-206, ENG-208, ENG-209, ENG-214, ENG-218, ENG-222, ENG-230, ENG-236, HIS-101, HIS-102, HIS-201, HIS-202, MUS-105, PHI-101, PHI-106, PHI-110, PHI-115, SPC-210, THE-101;

Cybersecurity Certificate Courses (highlighted yellow)
IST 193 Replaces IST 191 Linux System Admin (Cyber Cert)
High School dual enrollment courses (green)