PROGRAM PROPOSAL FORM

☐ **Preliminary Approval** – Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.

☒ **Final Approval** – Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

Program Name:	Foundations of Data Recovery and Analysis	**Program Code:** CTDRAC
Division and Department:	BCT / CISD	
Type of Award:	☐ AA ☐ AS ☐ AAS ☒ Cert. ☐ Adv. Cert. ☐ Post-Assoc. Cert. ☐ Cert. of Comp.	
Effective Term/Year:	Fall 2009	**CIP Code:** 11.1003
Initiator:	James Lewis/Neil Gudsen	

Program Features Program's purpose and its goals. Criteria for entry into the program, along with projected enrollment figures. Connection to other WCC programs, as well as accrediting agencies or professional organizations. Special features of the program.	This certificate program was designed to remedy the shortcomings of the predecessor Certificate in Information Assurance program which had originally supported the Network Security and Computer Forensics Programs of the 2008-09 Bulletin. This new program will include courses intended to better support the Data Recovery and Analysis (formerly Computer Forensics) Advanced Certificate and Degree of the 2009-10 Bulletin. For instance, Computer Systems Technology I and II are now required as they cover essential data recovery material including hard drive geometry, physical properties of media, and computer boot sequences. Students will continue to get an introduction to Information Assurance in CSS 180 and CSS 200, which are also a part of this program.	
Need Need for the program with evidence to support the stated need.	This program is needed to provide proper emphasis on computer hardware for students of the College's Data Recovery (formerly Computer Forensics) programs. Note: there are no new program costs associated with this program. It does, however, rely upon existing computer security resources in the TI 240 Computer lab and upon exiting resources in the first floor TI computer hardware labs.	
Program Outcomes/Assessment State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program. Include assessment methods that will be used to determine the effectiveness of the program.	Outcomes 1. **Identify current techniques for security operating systems and networks.** 2. **Test systems and identify basic vulnerabilities.** 3. **Identify legal, privacy and ethical issues regarding computer usage.**	Assessment method 1. **Department created final exam – short answer/multiple choice questions.** 2. **Sample of laboratory reports.** 3. **Departmental created final exam – short answer/ multiple-choice questions.**

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to **sjohn@wccnet.edu** for posting on the website.

Curriculum

List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list.

Program: Foundations in Data Recovery and Analysis Certificate (NEW Program Code)

Program requirements shown below are for catalog year 2009-10

Description:
In this introductory program, students will develop the basic knowledge and skills that will qualify them for admission into the Data Recovery and Analysis Advanced Certificate Program. Students will receive an introduction to the principles of information assurance and will acquire basic skills in computer repair and PC architecture.

Division: Business and Computer Technologies
Department: Computer Instruction

Advisors: Mike Galea, James Lewis, John Trame

Admission Requirements:
Students must have a minimum COMPASS Algebra score of 32 or complete MTH 097 with a minimum grade of C and pass the LEE Exam with a minimum score of 75% to enter MTH 169. Students must also be experienced at installing and configuring computers and be comfortable with working at the computer command line with DOS.

Important Note Regarding Employment Opportunities in Computer Forensics:
In order to the meet the requirements of the market for jobs in computer forensics, prior experience in law enforcement or the attainment of a bachelor's degree in criminal justice, information assurance, or related areas is advised for individuals wishing to pursue careers in computer forensics. In order to practice computer forensics in the State of Michigan, individuals must be licensed as private investigators or qualify for an exemption under statutes pertaining to the licensure of private investigators.

Continuing Eligibility:
Students must maintain a grade of "C" or better in the program requirements.

Major/Area Requirement	**Credits**
CIS 121 Linux/Unix Fundamentals	3
CSS 180 Computer Security I	4
CNT 201 Windows XP Administration	4
CNT 211 Windows Server Administration	4
CSS 200 Computer Security II	4
CST 150 Computer Systems Technology I	5
CST 155 Computer Systems Technology II	5
Minimum credits required for program	**29**

Budget

Specify program costs in the following areas, per academic year:

	START-UP COSTS	ONGOING COSTS
Faculty	$ 0.	$.
Training/Travel	0.	.
Materials/Resources	0.	0.
Facilities/Equipment	0.	0.
Other	0.	0.
TOTALS:	$ 0.	$ 0.

Program Description for Catalog and Web site

In this introductory program, students will develop the basic knowledge and skills that will qualify them for admission into the Data Recovery and Analysis Advanced Certificate Program. Students will receive an introduction to the principles of information assurance and will acquire basic skills in computer repair and PC architecture.

Program Information	**Accreditation/Licensure -** **Advisors** - Galea, James Lewis, John Trame **Advisory Committee – CIS Advisory Committee** **Admission requirements – See Above** **Articulation agreements – EMU** **Continuing eligibility requirements -**

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
1. **Identify current techniques for security operating systems and networks.**	Common department created exam.	First evaluation Winter of 2010. Every three years thereafter.	Minimum of two sections of CSS 200 over the three-year period.	All students in the selected.
2. **Test systems and identify basic vulnerabilities.**	Laboratory reports.	First evaluation Winter of 2010. Every three years thereafter.	Minimum of two sections of CSS 200 over the three-year period.	All students in the selected.
3. **Identify legal, privacy and ethical issues regarding computer usage.**	Common department created exam.	First evaluation Winter of 2010. Every three years thereafter.	Minimum of two sections of CSS 200 over the three-year period.	All students in the selected.

Scoring and analysis plan:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric/scoring guide.

   Outcomes 1 and 3: Scored using an answer sheet. Perform item analysis on assessment questions. Outcome 2: Laboratory reports will be scored using a departmentally developed rubric.

2. Indicate the standard of success to be used for this assessment.

   At least 80% of students must score 75% on the written exam.
   At least 80% of students shall have a score of 3 (of 4) in laboratory reports.

3. Indicate who will score and analyze the data (data must be blind-scored).

   A scoring key will be used. Assessment materials will be analyzed by the CIS Department.

4. Explain the process for using assessment data to improve the program.

   If the standard of success is not achieved, the program will be adjusted accordingly.

Reviewer	Print Name	Signature	Date
Initiator	Mike Galea		11-26-08
Department Chair	Clarence Hasselbach		11/26/2008
Division Dean/Administrator	Rosemary Wilson		12/1/08
Vice President for Instruction	Roger M. Palay		4/3/09
President	Larry Whitworth		4/28/09
Board Approval			04/28/09

logged 4/2/09 SH
Office of Curriculum & Assessment
4/8/09 fr

Program Information Report

School of Information Technology

The School of Information Technology gathers the diverse areas that make up the computer technology of today. From basic programming languages to systems development through networking, these programs provide the core of information technology. Develop skills in computer forensics or learn how to run a successful e-business, the growing field of applied information technology is waiting for you.

Washtenaw Community College offers programs at several levels for students who want to begin new careers, or advance in their existing careers. The first level is the certificate, which can vary from nine to thirty-six credits, depending on the field. Certificates generally prepare students for entry-level jobs.

After completing a certificate, students can progress to the next level, the advanced certificate. The credit hours required for these programs also vary. This type of certificate provides a more specialized level of skill development, and often allows students to upgrade their positions at their places of employment.

The next level, an Associate in Applied Science, is available for some programs. For some career fields, it is possible to earn a certificate, advanced certificate, and an Associate in Applied Science degree in the same field. In these cases, the credit hours from the certificate and advanced certificate can be applied to the credit hours needed for the Associate in Applied Science degree.

Alternatively, students can earn an AAS in Occupational Studies by completing a certificate, advanced certificate and General Education requirements.

Computer Security and Forensics

Become part of the growing field of computer system security and forensics.

Foundations of

Data Recovery and Analysis (CTDRAC)

Certificate

Program Effective Term: **Fall 2009**

In this introductory program, students will develop the basic knowledge and skills that will qualify them for admission into the Data Recovery and Analysis advanced certificate program. Students will receive an introduction to the principles of information assurance and will acquire basic skills in computer repair and PC architecture.

Important Note: In order to meet the requirements of the market for jobs in computer forensics, prior experience in law enforcement or the attainment of a bachelor's degree in criminal justice, information assurance or related areas is advised for individuals wishing to pursue careers in computer forensics. In order to practice computer forensics in the State of Michigan, individuals must be licensed as private investigators or qualify for an exemption under statutes pertaining to the licensure of private investigators.

Program Admission Requirements:
Students must also be experienced at installing and configuring computers and be comfortable with working at the computer command line with DOS.

Continuing Eligibility Requirements:
Students must maintain a grade of "C" or better in the program requirements.

Major/Area Requirements		(28 credits)
CIS 121	Linux/UNIX I: Fundamentals	3
CNT 201	Administering Microsoft Windows XP Professional	3
CNT 211	Administering and Managing Microsoft Windows Server Active Directory	4
CSS 180	Computer Security I	4
CSS 200	Computer Security II	4
CST 150	Computer Systems Technology I	5
CST 155	Computer Systems Technology II	5

Minimum Credits Required for the Program: **28**