

# CYPRESS COLLEGE CURRICULUM COMMITTEE

Tuesday, September 19, 2017

**TLC) Teaching Learning Center in the LRC.**

3:00 p.m.

## AGENDA

**PLEASE BE ON TIME...**The meeting will begin **promptly** at 3:00 p.m. in the **TLC Teaching Learning Center in the LRC.** Your attendance is critical in helping to meet the curriculum needs of Cypress College. Remember if you are unable to attend please find an alternate representative.

**Call to Order:**

**Mark Majarian, Chair**

1. **Approval of September 12, 2017 minutes:** (attached)
2. **Chair Report**
3. **Review Groups**

### Approvals

| DELETE COURSES |           |                             |
|----------------|-----------|-----------------------------|
| COURSE ID      | EFF DATE  | JUSTIFICATION               |
| CTRP 070 C     | 2018 Fall | No longer offered           |
| SPAN 050 C     | 2018 Fall | Course is no longer offered |

| REVISED COURSES  |  |            |   |              |   |
|--|--|------------|---|--------------|---|
| COURSE ID  | ACTION TAKEN   | CLASS SIZE | CLASS SIZE JUSTIFICATION  | EFF DATE     | JUSTIFICATION   |
| CHEM 101 C<br>Chemistry for Health Science Majors I<br>Units: 4<br>Lecture: 3<br>Laboratory: 3 | * Outline Update<br>* Catalog Description Update<br>* Schedule Description Update<br>* Prerequisites revalidated<br>* Textbook Update<br>* Student Learning Outcomes | 25         | This course contains labs in which the instructor provides extensive individualized feedback/evaluation on a regular basis. (e.g. problem sets, scientific experiments, lab reports)  | 2018<br>Fall | Program Review<br>Outline, catalog, schedule & textbook updated to better reflect course content. |
| CHEM 103 C<br>Chemistry and Society<br>Units: 3<br>Lecture: 3<br>Laboratory: 0                 | * Catalog Description Update<br>* Schedule Description Update<br>* Prerequisite Deletion<br>* Textbook Update<br>* Student Learning Outcomes                         | 35         | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations. Evaluation primarily through objective exams. Writing assignments are assessed mostly for concepts and structure | 2018<br>Fall | Program Review<br>Catalog, schedule & textbook updated to better reflect course content.          |

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| CHEM 104 C<br>Physical Science<br>for Teachers<br>Units: 4<br>Lecture: 3<br>Laboratory: 3         | * Outline Update<br>* Catalog Description Update<br>* Schedule Description Update<br>* Prerequisites revalidated<br>* Textbook Update<br>* Student Learning Outcomes  | 25 | Labs in which the instructor provides extensive individualized feedback/evaluation on a regular basis. (e.g. problem sets, scientific experiments, vocational skills, lab reports)  | 2018<br>Fall | Program Review<br>Outline, catalog, schedule & textbook updated to better reflect course content. |
| CHEM 107 C<br>Preparation for<br>General<br>Chemistry<br>Units: 5<br>Lecture: 4<br>Laboratory: 3  | * Outline Update<br>* Catalog Description Update<br>* Schedule Description Update<br>* Prerequisites revalidated<br>* Textbook Update   | 25 | This course contains labs in which the instructor provides extensive individualized feedback/evaluation on a regular basis. (e.g. problem sets, scientific experiments, lab reports)  | 2018<br>Fall | Program Review<br>Outline, catalog, schedule & textbook updated to better reflect course content. |
| CHEM 111BC<br>General<br>Chemistry II<br>Units: 5<br>Lecture: 3<br>Laboratory: 6                  | * Outline Update<br>* Catalog Description Update<br>* Schedule Description Update<br>* Lecture hours from 4 to 3<br>* Lab hours from 5 to 6<br>* Prerequisite revalidated<br>* Hybrid added<br>* Textbook Update<br>* Student Learning Outcomes | 25 | Labs in which the instructor provides extensive individualized feedback/evaluation on a regular basis. (e.g. problem sets, scientific experiments, vocational skills, lab reports)  | 2018<br>Fall | Program Review<br>Outline, catalog, schedule & textbook updated to better reflect course content. |
| CHEM 112 C<br>General<br>Chemistry II for<br>Engineers<br>Units: 4<br>Lecture: 4<br>Laboratory: 0 | * Outline Update<br>* Catalog Description Update<br>* Schedule Description Update<br>* Prerequisite revalidated<br>* Textbook Update<br>* Student Learning Outcomes   | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations. Evaluation primarily through objective exams. Writing assignments are assessed mostly for concepts and structure | 2018<br>Fall | Program Review<br>Outline, catalog, schedule & textbook updated to better reflect course content. |

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| CIS 195 C<br>Network Security<br>Units: 3<br>Lecture: 3<br>Laboratory: 1     | * Catalog<br>Description Update<br>* Schedule<br>Description Update<br>* Student Learning Outcomes  | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations. Evaluation primarily through objective exams. Writing assignments are assessed mostly for concepts and structure | 2018<br>Fall | Catalog and schedule change to revise industry certificates and important topics. |
| CIS 196 C<br>Ethical Hacking<br>Units: 3<br>Lecture: 3<br>Laboratory: 1      | * Catalog<br>Description Update<br>* Schedule<br>Description Update<br>* Title change<br>* Textbook Update<br>* Student Learning Outcomes | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018<br>Fall | Catalog, schedule, title & textbook updated to better reflect course content.     |
| CIS 245 C<br>Perl Programming<br>Units: 3<br>Lecture: 3<br>Laboratory: 1     | * Textbook Update   | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018<br>Fall | Program Review<br>Textbook updated to better reflect course content.              |
| CIS 247 C<br>Python Programming<br>Units: 3<br>Lecture: 3<br>Laboratory: 1   | * Textbook Update   | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018<br>Fall | Program Review<br>Textbook updated to better reflect course content.              |
| CIS 276 C<br>Computer Forensics I<br>Units: 3<br>Lecture: 3<br>Laboratory: 1 | * Textbook Update   | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018<br>Fall | Program Review<br>Textbook updated to better reflect course content.              |

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| CIS 277 C<br>Computer Forensics II<br>Units: 3<br>Lecture: 3<br>Laboratory:              | * Textbook Update  | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations. 35 is the maximum number of students because this is a highly technical class that requires equipment and special materials. | 2018 Fall | Program Review<br>Textbook updated to better reflect course content.   |
| CIS 278 C<br>Cyber Crime<br>Units: 3<br>Lecture: 3<br>Laboratory: 1                      | * Textbook Update  | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018 Fall | Program Review<br>Textbook updated to better reflect course content.   |
| CIS 279 C<br>Computer Forensics Legal Aspects<br>Units: 3<br>Lecture: 3<br>Laboratory: 1 | * Textbook Update  | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018 Fall | Program Review<br>Textbook updated to better reflect course content.   |
| CIS 280 C<br>Analysis of Digital Media<br>Units: 3<br>Lecture: 3<br>Laboratory: 1        | * Textbook Update  | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018 Fall | Program Review<br>Textbook updated to better reflect course content.   |
| CIS 281 C<br>Computer Forensics Capstone<br>Units: 3<br>Lecture: 3<br>Laboratory: 1      | * Prerequisite revalidated<br>* Textbook Update  | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018 Fall | Program Review<br>Textbook updated to better reflect course content.   |
| COUN 150 C<br>Academic and Life Success<br>Units: 3<br>Lecture: 3<br>Laboratory: 0       | * Catalog Description Update<br>* Schedule Description Update<br>* Distance Education and Hybrid added | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018 Fall | Online component requested to increase the distance education offerings at Cypress College, to increase student access and meet student demands. |

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| CSCI 133 C<br>Data Structures<br>in C++<br>Units: 4<br>Lecture: 4<br>Laboratory: 1                      | * Catalog<br>Description Update<br>* Schedule<br>Description Update<br>* Prerequisite<br>revalidated<br>* Distance<br>Education and<br>Hybrid added<br>* Textbook Update | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds.  | 2018<br>Fall | Program Review<br>Catalog, schedule & textbook updated to better reflect course content.<br>Online component requested to increase the distance education offerings at Cypress College, to increase student access and meet student demands. |
| CTRP 050 C<br>CSR/RPR<br>Directed Practice<br>Units: .5-2<br>Lecture: 1<br>Laboratory: 4                | * Outline Update<br>* Catalog<br>Description Update<br>* Schedule<br>Description Update  | 35 | While the instructor does lecture, most of the class time focuses on dictation material, group learning, and/or formal/informal student presentations through transcription and live reading scenarios.   | 2018<br>Fall | Program Review<br>Outline, catalog & schedule updated to better reflect course content.<br>This course needs to be updated to meet new state and national regulations.   |
| CTRP 071 C<br>Legal<br>Terminology and<br>Rhetoric<br>Units: 3<br>Lecture: 3<br>Laboratory: 0           | * Outline Update<br>* Textbook Update  | 35 | While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations.  | 2018<br>Fall | Program Review<br>Outline & textbook updated to better reflect course content.   |
| CTRP 099 C<br>Court Reporting:<br>Independent<br>Study<br>Units: .5-2<br>Lecture: .5-2<br>Laboratory: 0 | * Outline Update<br>* Catalog<br>Description Update  | 20 | Most of the time the students are engaged in practicing the skill(s) and/or topics they are learning, and the instructor gives each student individual instruction as the class proceeds. This is a standard size for an independent study class. | 2018<br>Fall | Program Review<br>Outline & catalog updated to better reflect course content.<br>This course is being revised in order to meet the changing needs of independent study.  |
| DANC 102 C<br>Pilates Mat<br>Work<br>Units: 1<br>Lecture: 0<br>Laboratory: 3                            | * Catalog<br>Description Update<br>* AAGE: Area E<br>* Textbook Update   | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds.  | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content.<br>Proposed for AA GE Area E to align with CSU GE Area E.   |

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| DANC 105 C<br>Ballet I<br>Units: 2<br>Lecture: 1<br>Laboratory: 3               | * Catalog<br>Description Update<br>* AAGE: Area E<br>* Textbook Update   | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 106 C<br>Ballet II<br>Units: 2<br>Lecture: 1<br>Laboratory: 3              | * Catalog<br>Description Update<br>* Prerequisite revalidated<br>* AAGE: Area E<br>* Textbook Update                             | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 107 C<br>Modern Dance I<br>Units: 2<br>Lecture: 1<br>Laboratory: 3         | * Outline Update<br>* Catalog<br>Description Update<br>* AAGE: Area E<br>* Textbook Update                                       | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 108 C<br>Modern Dance II<br>Units: 2<br>Lecture: 1<br>Laboratory: 3        | * Catalog Description Update<br>* Prerequisite revalidated<br>* AAGE: Area E<br>* Student Learning Outcomes<br>* Textbook Update | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 109 C<br>Dance<br>Improvisation<br>Units: 2<br>Lecture: 1<br>Laboratory: 3 | * Catalog<br>Description Update<br>* AAGE: Area E<br>* Textbook Update   | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 111 C<br>Jazz Dance I<br>Units: 2<br>Lecture: 1<br>Laboratory: 3           | * Catalog<br>Description Update<br>* AAGE: Area E<br>* Textbook Update   | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |

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|---|---|----|--|--------------|---|
| DANC 112 C<br>Jazz Dance II<br>Units: 2<br>Lecture: 1<br>Laboratory: 3                | * Catalog<br>Description Update<br>* Prerequisite<br>revalidated<br>* AAGE: Area E<br>* Textbook Update   | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 130 C<br>Afro-Caribbean<br>Dance<br>Units: 1<br>Lecture: 0<br>Laboratory: 3      | * Catalog<br>Description Update<br>* AAGE: Area E<br>* Textbook Update  | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 132 C<br>Flamenco Dance<br>Units: 1<br>Lecture: 0<br>Laboratory: 3               | * Catalog<br>Description Update<br>* AAGE: Area E<br>* Textbook Update  | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 136 C<br>Middle Eastern<br>Dance<br>Units: 1<br>Lecture: 0<br>Laboratory: 3      | * Catalog<br>Description Update<br>* AAGE: Area E<br>* Textbook Update  | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. Proposed for AA GE Area E to align with CSU GE Area E. |
| DANC 141 C<br>Performance<br>Class I<br>Units: 2-3<br>Lecture: 0<br>Laboratory: 7-10  | * Catalog Description<br>Update<br>* Schedule Description<br>Update<br>* Lab hours from<br>8-12 to 7-10<br>* Prerequisite<br>revalidated<br>* Advisory revalidated<br>* Textbook Update | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog, schedule & textbook updated to better reflect course content.  |
| DANC 142 C<br>Performance<br>Class II<br>Units: 2-3<br>Lecture: 0<br>Laboratory: 7-10 | * Catalog Description<br>Update<br>* Lab hours from<br>8-12 to 7-10<br>* Prerequisite<br>revalidated<br>* Advisory revalidated<br>* Textbook Update                                     | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content.  |

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| DANC 143 C<br>Performance<br>Class III<br>Units: 2-3<br>Lecture: 0<br>Laboratory: 7-10   | * Catalog Description Update<br>* Lab hours from 8-12 to 7-10<br>* Prerequisite revalidated<br>* Advisory revalidated<br>* Textbook Update | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. |
| DANC 144 C<br>Performance<br>Class IV<br>Units: 2-3<br>Lecture: 0<br>Laboratory: 7-10    | * Catalog Description Update<br>* Lab hours from 8-12 to 7-10<br>* Prerequisite revalidated<br>* Advisory revalidated<br>* Textbook Update | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. |
| DANC 230 C<br>Dance Teaching<br>Methodologies<br>Units: 3<br>Lecture: 2<br>Laboratory: 3 | * Catalog Description Update<br>* Prerequisite revalidated<br>* Lab hours from 2 to 3<br>* Textbook Update                                 | 25 | Most of the time the students are engaged in practicing the skill(s) they are learning and the instructor gives each student individual instruction as the class proceeds. | 2018<br>Fall | Program Review<br>Catalog & textbook updated to better reflect course content. |

### NEW DEGREES/CERTIFICATES

|                                    |  | EFF<br>DATE | JUSTIFICATION |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
|------------------------------------|--|-------------|---------------|-------|----------|------------------|---|----------|-----------------|---|----------|--------------------|---|----------|------------------|---|--|----|--|----------|--------------------|---|-----------------------------|--|--|--|--|-------|----------|----------------------|---|----------|-----------------------|---|----------|-------------|---|----------|----------------------------------|---|----------|---------------------------|---|----------|-----------------------------|---|--------------|---|
| Computer<br>Information<br>Systems | <p><b>Associates in Science Degree in Cyber Defense</b></p> <p>Take the following required core courses (12 units) plus one area of emphasis group of courses as listed below: (additional 12-18 units depending on emphasis group selected)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 75%;"></th> <th style="width: 10%; text-align: center;">Units</th> </tr> </thead> <tbody> <tr> <td>CIS195 C</td> <td>Network Security</td> <td style="text-align: center;">3</td> </tr> <tr> <td>CIS196 C</td> <td>Ethical Hacking</td> <td style="text-align: center;">3</td> </tr> <tr> <td>CIS230 C</td> <td>Cisco Networking 1</td> <td style="text-align: center;">3</td> </tr> <tr> <td>CIS245 C</td> <td>Perl Programming</td> <td style="text-align: center;">3</td> </tr> <tr> <td></td> <td style="text-align: center;">or</td> <td></td> </tr> <tr> <td>CIS247 C</td> <td>Python Programming</td> <td style="text-align: center;">3</td> </tr> <tr> <td colspan="3">Computer Forensics emphasis</td> </tr> <tr> <th style="width: 15%;"></th> <th style="width: 75%;"></th> <th style="width: 10%; text-align: center;">Units</th> </tr> <tr> <td>CIS276 C</td> <td>Computer Forensics I</td> <td style="text-align: center;">3</td> </tr> <tr> <td>CIS277 C</td> <td>Computer Forensics II</td> <td style="text-align: center;">3</td> </tr> <tr> <td>CIS278 C</td> <td>Cyber Crime</td> <td style="text-align: center;">3</td> </tr> <tr> <td>CIS279 C</td> <td>Computer Forensics Legal Aspects</td> <td style="text-align: center;">3</td> </tr> <tr> <td>CIS280 C</td> <td>Analysis of Digital Media</td> <td style="text-align: center;">3</td> </tr> <tr> <td>CIS281 C</td> <td>Computer Forensics Capstone</td> <td style="text-align: center;">3</td> </tr> </tbody> </table> |             |               | Units | CIS195 C | Network Security | 3 | CIS196 C | Ethical Hacking | 3 | CIS230 C | Cisco Networking 1 | 3 | CIS245 C | Perl Programming | 3 |  | or |  | CIS247 C | Python Programming | 3 | Computer Forensics emphasis |  |  |  |  | Units | CIS276 C | Computer Forensics I | 3 | CIS277 C | Computer Forensics II | 3 | CIS278 C | Cyber Crime | 3 | CIS279 C | Computer Forensics Legal Aspects | 3 | CIS280 C | Analysis of Digital Media | 3 | CIS281 C | Computer Forensics Capstone | 3 | 2018<br>Fall | Cyber security breach can have major financial and legal consequences. This certificate prepares students to identify Cyber security threats and implement procedures to protect Cyber assets. It will also enhance students' chances to pursue a professional career in Cyber Security by giving them various options to prepare for industry-recognized certificates such as Security+, CEH, CCNA, MCSE, ISM and CCNA Security. |
|                                    |  | Units       |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS195 C                           | Network Security   | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS196 C                           | Ethical Hacking  | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS230 C                           | Cisco Networking 1   | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS245 C                           | Perl Programming   | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
|                                    | or   |             |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS247 C                           | Python Programming   | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| Computer Forensics emphasis        |  |             |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
|                                    |  | Units       |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS276 C                           | Computer Forensics I   | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS277 C                           | Computer Forensics II  | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS278 C                           | Cyber Crime  | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS279 C                           | Computer Forensics Legal Aspects   | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS280 C                           | Analysis of Digital Media  | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |
| CIS281 C                           | Computer Forensics Capstone  | 3           |               |       |          |                  |   |          |                 |   |          |                    |   |          |                  |   |  |    |  |          |                    |   |                             |  |  |  |  |       |          |                      |   |          |                       |   |          |             |   |          |                                  |   |          |                           |   |          |                             |   |              |   |



Cisco Networking emphasis

|          |                    | Units |
|----------|--------------------|-------|
| CIS231 C | Cisco Networking 2 | 3     |
| CIS232 C | Cisco Networking 3 | 3     |
| CIS233 C | Cisco Networking 4 | 3     |
| CIS258 C | CCNA Security      | 3     |

Homeland Transportation Security emphasis

|          |                                    | Units |
|----------|------------------------------------|-------|
| AJ110 C  | Introduction to Criminal Justice   | 3     |
|          | or                                 |       |
| AJ120 C  | Concepts of Criminal Law           | 3     |
| ATC102 C | Career Communication/Portfolio     | 3     |
| ATC112 C | Homeland Security                  | 3     |
| ATC116 C | Aviation/Transportation Security   | 3     |
|          | or                                 |       |
| ATC256 C | Crew Resource Management           | 3     |
| ATC118 C | Disaster Preparedness and Response | 3     |
| ATC274 C | Passenger Services and Safety      | 3     |

Microsoft Networking emphasis

|          |  | Units |
|----------|--|-------|
| CIS185 C | Administering Windows Server   | 3     |
| CIS189 C | Administrating and Configuring Windows Server Directory Services     | 3     |
| CIS191 C | Administrating and Configuring Windows Server Network Infrastructure | 3     |
| CIS182 C | Microsoft Networking Fundamentals                                    | 3     |
|          | or   |       |
| CIS187 C | Microsoft Exchange and SharePoint Services                           | 3     |

Network Virtualization emphasis

|          |  | Units |
|----------|--|-------|
| CIS185 C | Administering Windows Server                                     | 3     |
| CIS189 C | Administrating and Configuring Windows Server Directory Services | 3     |
| CIS201 C | Microsoft Virtualization and Cloud Deployment                    | 3     |
| CIS202 C | VMware vSphere Virtualization Networking                         | 3     |

Advanced Networking emphasis (12 units)

Take 4 of the following courses:

|             |  | Units   |
|-------------|--|---------|
| CIS202 C    | VMware vSphere Virtualization Networking | 3       |
| CIS239 C    | CCNA Bootcamp                            | 3       |
| CIS240 C    | Wireless Networking Technology           | 3       |
| CIS248 C    | Voice Over IP                            | 3       |
| CIS257 C    | Storage Management and Cloud Computing   | 3       |
| CIS258 C    | CCNA Security                            | 3       |
| Total Units |  | 24 - 30 |

Computer Information Systems

**Cyber Defense Certificate**

Take the following required core courses (12 units) plus one area of emphasis option

|          |                    | Units |
|----------|--------------------|-------|
| CIS195 C | Network Security   | 3     |
| CIS196 C | Ethical Hacking    | 3     |
| CIS230 C | Cisco Networking 1 | 3     |
| CIS245 C | Perl Programming   | 3     |
|          | or                 |       |
| CIS247 C | Python Programming | 3     |

Computer Forensics Option (18 units)

|          |                                  | Units |
|----------|----------------------------------|-------|
| CIS276 C | Computer Forensics I             | 3     |
| CIS277 C | Computer Forensics II            | 3     |
| CIS278 C | Cyber Crime                      | 3     |
| CIS279 C | Computer Forensics Legal Aspects | 3     |
| CIS280 C | Analysis of Digital Media        | 3     |
| CIS281 C | Computer Forensics Capstone      | 3     |

Cisco Networking Option (12 units)

|          |                    | Units |
|----------|--------------------|-------|
| CIS231 C | Cisco Networking 2 | 3     |
| CIS232 C | Cisco Networking 3 | 3     |
| CIS233 C | Cisco Networking 4 | 3     |
| CIS258 C | CCNA Security      | 3     |

Homeland Transportation Security Option (18 units)

|          |                                    | Units |
|----------|------------------------------------|-------|
| AJ110 C  | Introduction to Criminal Justice   | 3     |
|          | or                                 |       |
| AJ120 C  | Concepts of Criminal Law           | 3     |
| ATC102 C | Career Communication/Portfolio     | 3     |
| ATC112 C | Homeland Security                  | 3     |
| ATC116 C | Aviation/Transportation Security   | 3     |
|          | or                                 |       |
| ATC256 C | Crew Resource Management           | 3     |
| ATC118 C | Disaster Preparedness and Response | 3     |
| ATC274 C | Passenger Services and Safety      | 3     |

Microsoft Networking Option (12 units)

|          |  | Units |
|----------|--|-------|
| CIS185 C | Administering Windows Server   | 3     |
| CIS189 C | Administrating and Configuring Windows Server Directory Services     | 3     |
| CIS191 C | Administrating and Configuring Windows Server Network Infrastructure | 3     |

Cyber security breach can have major financial and legal consequences. This certificate prepares students to identify Cyber security threats and implement procedures to protect Cyber assets. It will also enhance students' chances to pursue a professional career in Cyber Security by preparing them for industry-recognized certificates such as Security+, CEH, CCNA, MCSE, ISM and CCNA Security.

|   |   |         |
|---|---|---------|
| CIS182 C  | Microsoft Networking Fundamentals                               | 3       |
|   | or  |         |
| CIS187 C  | Microsoft Exchange and SharePoint Services                      | 3       |
| Network Virtualization Option (12 units)                                  |   |         |
|   |   | Units   |
| CIS185 C  | Administering Windows Server                                    | 3       |
| CIS189 C  | Administering and Configuring Windows Server Directory Services | 3       |
| CIS201 C  | Microsoft Virtualization and Cloud Deployment                   | 3       |
| CIS202 C  | VMware vSphere Virtualization Networking                        | 3       |
| Advanced Networking Option (12 units)<br>Take 4 of the following courses: |   |         |
|   |   | Units   |
| CIS202 C  | VMware vSphere Virtualization Networking                        | 3       |
| CIS239 C  | CCNA Bootcamp   | 3       |
| CIS240 C  | Wireless Networking Technology                                  | 3       |
| CIS248 C  | Voice Over IP   | 3       |
| CIS257 C  | Storage Management and Cloud Computing                          | 3       |
| CIS258 C  | CCNA Security   | 3       |
| Total Units   |   |         |
|   |   | 24 - 30 |

| REVISED DEGREES/CERTIFICATES |                                   |                    |   |    |
|------------------------------|-----------------------------------|--------------------|---|----|
| DEGREE                       |                                   | EFF DATE           | JUSTIFICATION   |    |
| Computer Information Systems | <b>Cyber Security Certificate</b> |                    | 2018 Fall<br>Title change on CIS 196 C<br>Remove CIS 258 C and replace with CIS 245 C<br>Remove CIS 279 C and replace with CIS 247 C<br>No total unit change.<br>This certificate prepares students to identify Cyber security threats and implement procedures to protect Cyber assets. It will also enhance students' chances to pursue a professional career in Cyber Security by preparing them for industry-recognized certificates such as Security + and Certified Ethical Hacker. |    |
|                              | Take the following courses        |                    |   |    |
|                              |                                   | Units              |   |    |
|                              | CIS195 C                          | Network Security   |   | 3  |
|                              | CIS196 C                          | Ethical Hacking    |   | 3  |
|                              | CIS230 C                          | Cisco Networking 1 |   | 3  |
|                              | CIS245 C                          | Perl Programming   |   | 3  |
|                              |                                   | or                 |   |    |
|                              | CIS247 C                          | Python Programming |   | 3  |
|                              | Total Units                       |                    |   | 12 |

Computer Information Systems

**Computer Forensics**

Take a total of 3 units from the following courses:

|  |                                  | Units |
|--|----------------------------------|-------|
| CIS271 C   | Computer Forensics in Practice   | 1     |
| CIS272 C   | Computer Forensics New Challenge | 1     |
| CIS273 C   | Computer Forensics Tools         | 1     |
| CIS276 C   | Computer Forensics I             | 3     |
| Take all of the following required courses (15 units): |                                  |       |
|  |                                  | Units |
| CIS277 C   | Computer Forensics II            | 3     |
| CIS278 C   | Cyber Crime                      | 3     |
| CIS279 C   | Computer Forensics Legal Aspects | 3     |
| CIS280 C   | Analysis of Digital Media        | 3     |
| CIS281 C   | Computer Forensics Capstone      | 3     |
|  |                                  |       |
| Total Units  |                                  | 18    |

The certificate prepares students for a career in Computer Forensics, which a branch of forensic science pertaining to legal evidence found in computers and digital storage mediums. Upon completion of this certificate program, students may be qualified for jobs as Computer Forensic technicians.