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LOUISIANA COMMUNITY & TECHNICAL COLLEGE SYSTEM

TO: Dr. Monty Sullivan
LCTCS President

APPROVED
6/9/21
LCTCS BOARD OF SUPERVISORS

THROUGH: Dr. René Cintrón RC
Chief Education and Training Officer

THROUGH: Dr. Wendi Palermo WP
Executive Director of Academics and Workforce

FROM: Dr. Adrienne Fontenot AF
Director of Adult Learning and Educational Programs

SUBJECT: Program Requests at Baton Rouge Community College

DATE: 04/22/2021

FOR BOARD ACTION:

Recommendation: Staff recommends the Board approve the following program requests listed below.

Program Additions:

1. Certificate of Technical Studies (CTS) in Ornamental and Turf Pest Control Technician (CIP 01.0601) - **4 STARS**
2. Career and Technical Certificate (CTC) in Customer Service and Sales (CIP 52.0411) with an Industry-Based Certification (IBC) in Customer Service and Sales issued by the National Retail Foundation - **4 STARS**

Program Modifications:

3. Associate of Applied Science (AAS) in Computing and Information Systems (CIP 11.0501) – **5 STARS**
4. Technical Diploma (TD) in Horticulture Technician (CIP 01.0601) - **4 STARS**
5. Certificate of Applied Science (CAS) in Business Technology (CIP 52.0201) - **5 STARS**
6. Certificate of Technical Studies (CTS) in Retail Management (CIP 52.0212) - **5 STARS**

Program Terminations:

7. Technical Diploma (TD) in Graphics (CIP 10.0303) - **2 STARS**
   a. Certificate of Technical Studies (CTS) in Graphics Prepress Technician (CIP 10.0303) - **2 STARS**
8. Certificate of Technical Studies (CTS) in Customer Service (CIP 52.0411) - **4 STARS**
9. Certificate of Technical Studies (CTS) in Highway Engineering Technology (CIP 15.0201) - **4 STARS**
10. Certificate of Technical Studies (CTS) in Landscape Technician (CIP 01.0601) - **4 STARS**

Background: Baton Rouge Community College (BRCC) is requesting to add two new certificates. The addition of these programs is associated with modifications to programs in which each is embedded, along with the deletion of existing awards. Both new awards were developed with input from advisory boards in response to industry demands.

The program modifications being requested align with College initiatives and industry demands and are consistent with BRCC's mission to be the preferred provider of talent for a global marketplace.

BRCC is requesting to terminate programs due to declining enrollment, instructor attrition, conversion to non-credit, and changes in local industry needs. Teach out plans are in place, where needed.

Fiscal Impact: The administrative structure and allocation of departmental funds will be unchanged, unless otherwise noted.

History of Prior Actions: There is a history of making programmatic changes to meet student and workforce needs.

Benefits to the System: The changes will ensure curriculum is aligned to industry needs and better able to prepare students for successful entry into the workforce.

Approved for Recommendation to the Board
Dr. Monty Sullivan

June 9, 2021

Date

Baton Rouge Community College
201 Community College Dr.
Baton Rouge, LA 70806
(225) 216-8000
www.mybrcc.edu

May 10, 2021

Board of Supervisors
The Louisiana Community and Technical College System
265 South Foster Drive
Baton Rouge, Louisiana 70806

Attention: René Cintrón, Ph.D., LCTCS Chief Education and Training Officer
Adrienne Fontenot, Ed.D., LCTCS Director of Adult Learning and Educational Programs
Wendi Palermo, Ph.D., R.N., LCTCS Executive Director of Academics and Workforce

Dear Drs. Fontenot, Palermo, and Cintrón:

Baton Rouge Community College (BRCC) requests the approval of the Board of Supervisors of the Louisiana Community and Technical College System (LCTCS) to implement the following curricular actions.

New Programs:

1. Ornamental and Turf Pest Control Technician, Certificate of Technical Studies (CTS): CIP code 01.0601, 4 Stars. Includes "Ornamental and Turf Pest Control" Industry-Based Certification (IBC) issued by the Louisiana Department of Agriculture and Forestry. Effective Fall 2022.
2. Customer Service and Sales, Career and Technical Certificate (CTC): CIP code 52.0411, 3 Stars. Includes "Customer Service and Sales" Industry-Based Certification (IBC) issued by the National Retail Foundation. Effective Fall 2022.

Justification: Addition of these programs is associated with modifications to programs in which each is embedded, along with the deletion of existing awards. Both new awards were developed with input from advisory boards in response to industry demands. Board of Regents forms for offering these awards via distance education formats (Academic Affairs Policy 2.12) accompany this letter and the associated LCTCS form.

Program Modifications:

3. Horticulture Technician, Technical Diploma (TD): CIP code 01.0601, 4 Stars. Effective Fall 2021.
4. Computing and Information Systems Associate of Applied Science (AAS): CIP code 11.0501, 5 Stars. Effective Fall 2021.
5. Business Technology, Certificate of Applied Science (CAS): CIP code 52.0201, 5 Stars. Effective Fall 2022.
6. Retail Management, Certificate of Technical Studies (CTS): CIP code 52.0212, 5 Stars. Effective Fall 2022.

Justification: Program modifications align with College initiatives and industry demands and are consistent with BRCC's mission to be the preferred provider of talent for a global marketplace.

SB | mmc

Program Deletions:

7. Customer Service, Certificate of Technical Studies (CTS): CIP code 52.0411, 3 Stars. Effective Fall 2021.
8. Highway Engineering Technology, Certificate of Technical Studies (CTS): CIP code 15.0201, 4 Stars. Effective Fall 2021.
9. Landscape Technician, Certificate of Technical Studies (CTS): CIP code 01.0601, 4 Stars. Effective Fall 2021.
10. Graphics, Technical Diploma (TD): CIP code 10.0303, 2 Stars. Effective Fall 2021.
    a. Graphics Prepress Technician, Certificate of Technical Studies (CTS): CIP code 10.0303, 2 Stars. Effective Fall 2021.

Justification: Program obsolescence, declining enrollment, instructor attrition, conversion to non-credit, and changes in local industry needs underlie the proposed deletions, as described in the LCTCS Curriculum Form and Board of Regents forms (Academic Affairs Policy 2.08) that accompany this letter.

Please let me know if additional information is needed. Thank you for your consideration of this request.

Sincerely,

Sarah Barlow, Ph.D.
Vice Chancellor for Academic and Student Affairs

Cc: Willie E. Smith, Sr., Ed.D., Chancellor
Margaret McMichael, Ph.D., Director of Curriculum and Articulation

LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

Requests for Programs: New, Modification, and Adoption

Baton Rouge Community College

TYPE OF PROPOSED CHANGE		
☒ New Program	☒ Curriculum Modification	☐ Curriculum Adoption
Program Name: Various		

AWARD LEVEL(S)	
For Board of Regents and LCTCS Review:	For LCTCS Review:
☒ Associate of Applied Science (A.A.S.)	☒ Technical Diploma (T.D.)
☐ Associate of Science (A.S.)	☒ Career and Technical Certificate (C.T.C)
☐ Associate of Arts (A.A.)	☒ Certificate of Technical Studies (C.T.S.)
☐ Other Associate Degree	
Name:	
☒ Certificate of Applied Science (C.A.S.)	
☐ Certificate of General Studies (C.G.S.)	

New Programs:

Name: Ornamental and Turf Pest Control Technician – 4 Stars			
CIP: 01.0601	Credit Hours: 21	Contact Hours: 780	Award Level: C.T.S.

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded
Ornamental and Turf Pest Control	Louisiana Department of Agriculture and Forestry	Introduction to Plant Science	HORT	1113	3
		Native Plants of Louisiana I	HORT	1123	3
		Plant Propagation	HORT	1133	3
		Louisiana Laws and Regulations	HORT	1141	1
		Soils, Fertilizers, and Water	HORT	1154	4
		Horticulture Lab I	HORT	1162	2

		Greenhouse Procedures	HORT	1213	3
		Turfgrass	HORT	1222	2

Name: Customer Service and Sales – 3 Stars			
CIP: 52.0411	Credit Hours: 12	Contact Hours: 180	Award Level: C.T.C.

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded
Customer Service and Sales Certification	National Retail Foundation	Professional Selling	BUSN	1503	3

Program Modifications:

Name: Computing and Information Systems – 5 Stars			
CIP: 11.0501	Credit Hours: 60	Contact Hours: N/A	Award Level: A.A.S.
Name: Business Technology – 5 Stars			
CIP: 52.0201	Credit Hours: 30	Contact Hours: 450	Award Level: C.A.S.
Name: Retail Management – 5 Stars			
CIP: 52.0212	Credit Hours: Currently: 30 Proposed: 18	Contact Hours: Currently: 450 Proposed: 270	Award Level: C.T.S.
Name: Horticulture Technician – 4 Stars			
CIP: 01.0601	Credit Hours: 45	Contact Hours: Current: 1545 Proposed: 1680	Award Level: T.D.

Program Deletions:

Name: Customer Service – 3 Stars			
CIP: 52.0411	Credit Hours: 15	Contact Hours: 225	Award Level: C.T.S.
Name: Highway Engineering Technology – 4 Stars			
CIP: 15.0201	Credit Hours: 32	Contact Hours: 675	Award Level: C.T.S.
Name: Landscape Technician – 4 Stars			
CIP: 01.0601	Credit Hours: 25	Contact Hours: 885	Award Level: C.T.S.
Name: Graphics – 2 Stars			
CIP: 10.0303	Credit Hours: 45	Contact Hours: 1380	Award Level: T.D.
Name: Graphics Prepress Technician – 2 Stars			

CIP: 10.0303	Credit Hours: 23	Contact Hours: 660	Award Level: C.T.S.

PROPOSED CHANGE
a) For New Programs, state the purpose and objective; b) For Curriculum Modifications, state previous credit and clock hours; c) For Program Termination, state program and all award levels; d) For Curriculum Adoption, state the college from which curriculum is being adopted and the date it was approved by LCTCS.

a. New Programs

(1) Ornamental and Turf Pest Control Technician CTS (CIP code 01.0601, 4 Stars). Ornamental and Turf Pest Control Technicians serve as Horticultural Attendants alongside Horticulture Technicians to apply chemicals to weeds; control pests by scheduling, preparing, and applying pesticides; fertilize and amend soils; apply mulch to beds; and several other activities that monitor pest activity. This technician supports a 4-star labor market and entry-level positions in Horticulture. The Ornamental and Turf Pest Control Technician CTS includes coursework that prepares students for the Louisiana Department of Agriculture and Forestry Ornamental and Turf Pest Control licensure exam and thus prepares students for obtaining an industry-based certification (IBC). Effective Fall 2021.

(2) Customer Service and Sales CTC (CIP code 52.0411, 3 Stars). The Customer Service and Sales Career and Technical Certificate includes coursework in business communications, selling techniques, and business computer applications for the development of a broad range of skills in key areas that will enhance the students' ability to deliver excellent customer service in any field or industry. Students will have the opportunity to receive a professional credential upon passing the certification exam offered by the National Retail Foundation. The CTC is intended to replace the Customer Service CTS proposed for deletion and will be embedded in the Business Administration AAS. Effective Fall 2022.

b. Program Modifications:

(3) Horticulture Technician TD (CIP code 01.0601, 4 Stars). Increase the clock hours, from 1545 to 1680. Effective Fall 2021.

(4) Computing and Information Systems AAS (CIP code 11.0501, 5 Stars)
- i Modify the title of the Applications Developer concentration, to "Application Software Development". Effective Fall 2021.
- ii Modify the degree by adding a new concentration in Cybersecurity. Effective Fall 2021.

(5) Business Technology CAS (CIP code 52.0201, 5 Stars): Change the name of the award to "Business Administration". Effective Fall 2022.

(6) Retail Management CTS (CIP code 52.0212, 5 Stars): Effective Fall 2022.
- i Reduce the credit hours from 30 to 18
- ii Reduce the clock hours from 450 to 270

c. Program Deletions/Terminations: Effective Fall 2021.
(7) Customer Service CTS (CIP code 52.0411, 3 Stars)

(8) Highway Engineering Technology CTS (CIP code 15.0201, 4 Stars)

(9) Landscape Technician CTS (CIP code 01.0601, 4 Stars)

(10) Graphics TD (CIP code 10.0303, 2 Stars)
i Graphics Prepress Technician CTS (CIP code 10.0303, 2 Stars)

IMPLEMENTATION DATE (Semester and Year)	Indicated above for each action.

HISTORY OF PRIOR ACTIONS: Provide an overview of changes to this program.

Horticulture Technician TD: The Horticulture TD was last modified in 2015, coincident with the merger between BRCC and the former Capital Area Technical College (CATC). Modifications included reductions in credit hours (from 60 to 45) and clock hours (from 1800 to 1545), as well as a number of course-level changes. Deletion of the Grower Technician Technical Competency Area (TCA) embedded in this program was approved by the Board of Supervisors in 2018, in accordance with the elimination of the award level from the Board of Regents' Academic Affairs policy 2.15, Definitions of Undergraduate Degrees and Undergraduate/Graduate Certificates in 2017. The Board of Supervisors approved distance delivery for the TD (50-99% online) in 2020.

Computing and Information Systems AAS: Since obtaining approval for the original degree, with an initial program of study for an Applications Developer concentration (from Board of Supervisors and Board of Regents in February, 2019), BRCC has developed a Cloud Computing concentration (approved by Board of Supervisors via program adoption in September, 2019) and is now proposing a Cybersecurity concentration. The Board of Supervisors approved distance delivery of this award (50-99% online) in 2020.

Business Technology CAS: Modifications to the Business Technology CAS approved by the Board of Supervisors in December 2014 did not include changes to 'major' courses offered by the Business Division. The Board of Supervisors approved distance delivery of this award in 2007 (50-99%) and in 2015 (100% online).

Retail Management CTS: Since this award was approved by the Board of Supervisors (March, 2016), incremental changes have been made that were below the threshold for seeking approval. The modifications to the program proposed here are linked to the proposed modifications to the Business Technology/Administration CAS and the proposed addition of the Customer Service and Sales CTC. To avoid credit hour and course overlap with the Business Technology/Administration CAS, the program of study has been reduced to the minimum courses and credit hours needed for consistency with the overall Business Administration AAS and so that a student who does not plan to complete the AAS will still have a meaningful body of

coursework for the title and purpose of the CTS. The Board of Supervisors approved distance delivery of this award in February 2019 (100% online).

JUSTIFICATION FOR THE PROPOSED CHANGE
Include support such as four-year university agreements, industry demand, advisory board information, etc.

a. New Programs

(1) Ornamental and Turf Pest Control Technician CTS (CIP code 01.0601, 4 Stars – Appendix A): With coursework that prepares students for the Louisiana Department of Agriculture and Forestry's Ornamental and Turf Pest Control exam, this program will not only replace but will also provide better opportunities for students than the Landscape Technician CTS, which is to be deleted (see below). According to the Occupational Information Network (O*NET Line, https://www.onetonline.org/), sponsored by the United States Department of Labor, the occupational outlook for Pesticide Handlers, Sprayers, and Applicators (of Vegetation) is bright; average annual earnings for this occupation are $32,340; the average hourly wage is more than double the current minimum wage for the state ($15.55/hour; Appendix A). The Louisiana Workforce Commission (LWC) long-term projection estimate 120 annual openings statewide through 2016 (Appendix B).

(2) Customer Service and Sales CTC (CIP code 52.0411, 3 Stars – Appendix C): Designed through discussions with local retailers/call centers and the Advisory Board for BRCC's Business Division, this certificate is expected to be very attractive to many students and to employers who wish to sponsor their employees to enroll at BRCC. Students will have the opportunity to earn a market able credential - the Customer Service and Sales industry-based certification – in a single semester. According to O*NET Online, Customer Service Representatives in Baton Rouge currently earn, on average, $15.94/hour (annual average salary of $33,160; Appendix C). The LWC anticipates 510 annual openings for this occupation through 2026 (Appendix B). The Customer Service and Sales Certification on a student's résumé will permit the student to be competitive for employment and better wages, whether the student exits or takes advantage of the opportunity for better employment while continuing on in the Business Administration AAS.

b. Program Modifications

(3) Horticulture Technician TD (CIP 01.0601, 4 Stars – Appendix D). Currently offered only in correctional centers, BRCC plans to begin offering the TD and the proposed Ornamental and Turf Pest Control Technician CTS at the Mid City (main) campus. To increase student interest at Mid City and to provide students in corrections with an updated curriculum that may be completed in a more timely fashion, revisions to the program at the course level include co-requisite and prerequisite changes that shorten the time to completion to three semesters. An increase in instructional contact time will permit adequate time to prepare students for the Louisiana Department of Agriculture and Forestry's licensure exams and ensure that students at Mid City who are financial aid-eligible may apply their aid to tuition and fees for this program.

(4) Computing and Information Systems AAS (CIP code 11.0501, 5 Stars)

i The proposed modification of the title of the current Applications Developer concentration, to "Application Software Development", is intended to more accurately represent the nature of both the coursework in the program and the jobs for which the program prepares students (e.g., development of software for mobile applications, word processing, web browsers, and software for macOS, Windows, Android, and Linux systems). The proposed title for the concentration remains consistent with the description of programs with CIP code 11.0501 (Appendix E).

ii Modify the degree by adding a new concentration in Cybersecurity (Appendix F). The new concentration is a direct response to industry demands, which have increased concurrently with the implementation of remote work by employers in many fields in the past 14 months. According to the Bureau of Labor Statistics (Appendix F), "Employment of information security analysts is projected to grow 31% from 2019 to 2029, much faster than the average for all occupations. Demand for information security analysts is expected to be very high, as these analysts are needed to create innovative solutions to prevent hackers from stealing critical information or causing problems for computer networks." The LWC estimates approximately 30 openings for Information Security Analysts annually through 2026 in Regional Labor Market 2, which includes Baton Rouge (Appendix B). According to O*NET Online, the average annual salary of Information Security Analysts in Baton Rouge is $72,680 (Appendix F). Even though more positions are likely to be available to individuals who have completed a baccalaureate-level program, those with an associate degree are attractive to employers who train their employees to meet their specific demands.

(5) Business Technology CAS (CIP code 52.0201, 5 Stars – Appendix G). The proposed title change, to "Business Administration" is consistent with the title change for the Business Administration AAS, approved by the Board of Supervisors in October 2017. [Modification of the title of the AAS was the culmination of modifications to the content of the program over time to meet local workforce demands.] Modifications to the CAS have been postponed until the other exit points were established to avoid prohibitive credit hour and course requirement overlap. This award is intended to be embedded in and therefore serve as a potential exit point from the Business Administration AAS; consequently, in addition to the title change, the program of study, while remaining at 30 credit hours, is to be prescriptive to facilitate concurrent assessment of the certificate and the AAS. All of the courses that will now be required for completion of the CAS are currently among the electives available for completion of the program. The General Education courses will remain the same (Appendix G).

(6) Retail Management CTS (CIP code 52.0212, 5 Stars – Appendix G). The desire to incorporate the Customer Service and Sales CTC into the Business Administration AAS lead to considerable reexamination of the curriculum for the Retail Management CTS. Based on discussions with the Advisory Board

for the Business Division, the revision of the program is intended to build on the Customer Service and Sales curriculum and to include only those courses that prepare students for retail management. The resulting curriculum is free of prohibitive and unnecessary overlap with the proposed new Customer Service and Sales CTC or with the Business Technology/ Administration CAS (Appendix G).

c. Program Deletions/Terminations (Board of Regents forms requesting termination – Appendix H):

(7) Customer Service CTS (CIP code 52.0411, 3 Stars): The program of study does not prepare students for a certification exam in customer service, nor is it aligned with the Business Administration AAS or with any other higher award offered by the Business Division. At 15 credit hours, the program does not meet the Board of Regents' definition of a CTS, and the addition of another course would not serve the needs of students. Replacing the award with the CTC is far better for students.

(8) Highway Engineering Technology CTS (CIP code 15.0201, 4 Stars): The program has been dormant for a number of years. Hiring adjunct faculty has been difficult since the original arrangement with the Louisiana Department of Transportation and Development expired (for the first few years, DOTD provided instructors at no cost to BRCC).

(9) Landscape Technician CTS (CIP code 01.0601, 4 Stars): course-level changes, primarily to the sequence of courses in the Horticulture Technician TD have resulted in prohibitive overlap in courses and credit hours between this CTS and the TD. Reduction of credit hours and courses would result in the elimination of all Landscaping courses from the CTS, so this CTS is to be deleted. The proposed new Ornamental and Turf Pest Control Technician CTS will provide students with a potential exit point and opportunity to earn an industry-based certification, not available with the Landscape Technician CTS.

(10) Graphics TD and embedded Graphics Prepress Technician CTS (both CIP code 10.0303, 2 Stars). At the time of the merger of BRCC with the former Capital Area Technical College, enrollment in these programs was declining. Given the low Star rating for the discipline and challenges for updating content and equipment for the program, BRCC decided to close the program to enrollment and obtained approval to teach out the program from the Southern Associate of Colleges and Schools Commission on Colleges (Appendix H). All students have completed the teach out and the faculty member dedicated to the program has retired.

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (http://www.laworks.net/Stars/)
Star level for each program is indicated elsewhere in this form.

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

☐ Main Campus	☐ All Locations	☒ Sites (list below)	☒ Distance Education
Site 1, Main Campus: Computing and Information Systems AAS (modification), Business Technology CAS (modification), Retail Management CTS (modification), Customer Service CTS (deletion), Customer Service and Sales CTC (new program), Highway Engineering Technology CTS (deletion), Horticulture Technician TD (modification), Ornamental and Turf Pest Control Technician CTS (new program)			
Site 2, Acadian site: Graphics TD and Graphics Prepress Technician CTS (deletions)			
Site 3, Distance Education: Computing and Information Systems AAS (modification), Business Technology CAS (modification), Retail Management CTS (modification), Customer Service CTS (deletion), Ornamental and Turf Pest Control Technician CTS (new program; Appendix I contains the Board of Regents form for authorization to offer via distance education as a hybrid program), Customer Service and Sales CTC (new program; Appendix I contains the Board of Regents form for authorization to offer via distance education as a fully online program)			
Site 4, Louisiana Correctional Institute for Women: Horticulture Technician TD (modification), Landscape Technician CTS (deletion), Ornamental and Turf Pest Control Technician CTS (new program)			
Site 5, Louisiana State Penitentiary: Horticulture Technician TD (modification), Landscape Technician CTS (deletion), Ornamental and Turf Pest Control Technician CTS (new program)			

QUALIFIED FACULTY – for BUSN courses supporting the Customer Service and Sales CTC		
☒ Use Existing Faculty **#:** 3	☐ Hire Adjunct Faculty **#:** _____	☐ Hire Full-Time Faculty **#:** _____
MINIMUM CREDENTIALS REQUIRED FOR FACULTY to teach BUSN courses:		
Education: Master of Business Administration (MBA); or master's degree and 18 graduate semester hours in one or any combination of the following fields: business, entrepreneurship, finance, management, marketing.	Experience:	Certification:

QUALIFIED FACULTY – for CSCI courses supporting the Customer Service and Sales CTC and CSCI courses supporting the proposed Cybersecurity concentration in the Computing and Information Systems AAS:		
☒ Use Existing Faculty **#:** 5	☐ Hire Adjunct Faculty **#:** _____	☐ Hire Full-Time Faculty **#:** _____

MINIMUM CREDENTIALS REQUIRED FOR FACULTY:		
Education: Master's degree in computer science or related field, or master's degree and 18 graduate semester hours in computer science or related field.	Experience:	Certification:

QUALIFIED FACULTY – for teach non-transferable HORT courses supporting the proposed Ornamental and Turf Pest Control Technician CTS:		
☒ Use Existing Faculty **#:** 2	☐ Hire Adjunct Faculty **#:**	☐ Hire Full-Time Faculty **#:**
MINIMUM CREDENTIALS REQUIRED FOR FACULTY to teach HORT courses for the proposed Ornamental and Turf Pest Control Technician CTS:		
Education: Associate's degree	Experience: At least three years of experience in the field	Certifications: Industry-based certifications in Ornamental and Turf Pest Control and/or related.

FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS
Departments: • Computer Science, Engineering, and Mathematics (Computing and Information Systems AAS, Cybersecurity concentration and Applications Developer concentration); Graphics TD and Graphics Prepress Technician CTS; Highway Engineering Technician CTS) • Business (Retail Management CTS, Customer Service CTS/Customer Service and Sales CTC) • Technical Education (Horticulture TD, Landscape Technician CTS, Ornamental and Turf Pest Control Technician CTS)
Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.
For all proposed actions, administrative structures will remain the same. Department fund allocations will not be altered because the programs are directly aligned with and /or are embedded in existing awards. No additional resources will be needed.

ANTICIPATED ENROLLMENT: **Ornamental and Turf Pest Control Technician CTS (CIP code 01.0601, 4 Stars)**					
Students	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**

ANTICIPATED ENROLLMENT: **Ornamental and Turf Pest Control Technician CTS (CIP code 01.0601, 4 Stars)**					
DAY	15	30	30	30	45
EVENING			15	30	30
DISTANCE EDUCATION					
Describe Process for Attaining & Estimating Enrollment:	The anticipated enrollment numbers are based on an increase in the number of student cohorts by one (1) each year, beginning 2021-22. The student cohort size is 15. Cohorts must be full-time students.				

ANTICIPATED ENROLLMENT: Cybersecurity concentration, Computing and Information Systems AAS (CIP code 11.0501, 5 Stars)					
Students	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**
DAY		5	10	20	30
EVENING	5	10	20	30	40
DISTANCE EDUCATION	5	10	20	30	40
Describe Process for Attaining & Estimating Enrollment:	The department will advertise the new program offering to current BRCC students, local high school counselors as well as the Tara IBM P-TECH program administrators (as an additional pathway for dual enrollment students). Additionally, the program will be advertised on the department's webpage.				

ANTICIPATED ENROLLMENT: **Customer Service and Sales CTC (CIP code 52.0411, 3 Stars)**					
Students	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**
DAY	204	213	222	231	240
EVENING					
DISTANCE EDUCATION	136	142	148	154	160

ANTICIPATED ENROLLMENT: **Customer Service and Sales CTC (CIP code 52.0411, 3 Stars)**	
Describe Process for Attaining & Estimating Enrollment:	Because this award is to be embedded in the Business Administration AAS, the anticipated enrollment in Year One is estimated to be the same as the current enrollment in the AAS. It includes an approximate 5% annual increase. Although in the current academic year the vast majority of courses were offered via distance education delivery, in the near future BRCC expects more students to enroll online than have done so in the past (70% face-to-face, 30% online) but the enrollment in face-to-face courses is still expected to be higher than in online courses after on-campus, face-to-face instruction resumes.

PROGRAM ACCREDITATION:		
Is Program Accreditation, Licensure or Certification Required?	☐ Yes	☒ No
	If YES, please provide projected accreditation/licensure/certification date:	
Type/Name of Program Accreditation, Licensure or Certification Required:		

PROGRAM CURRICULUM – all are attached (Appendices A, C, D, F, and G)

BENEFITS TO THE SYSTEM

Discuss how this change will benefit your students, your community, and the LCTCS.

New programs:
New programs are designed to meet the needs of local industries and to improve the competitiveness of BRCC graduates for employment in the greater Baton Rouge area, state-wide, and beyond. The Customer Service and Sales CTC will allow those who may not be able to remain continuously enrolled at the College to obtain an industry-based certification and marketable credential upon completion of a single semester of coursework and improve their prospects for earnings that are twice as high as when they began the semester. The students that do remain continuously enrolled upon earning the CTC will be able to earn better wages while they work toward the degree. BRCC anticipates that employers will be interested in sponsoring the enrollment of select employees in the CTC. Employment prospects for students completing the Ornamental and Turf Pest Control Technician CTS and the certification exam will be improved after approximately 19 weeks at the College.

Program modifications:
Modifications to the Horticulture TD are linked to BRCC's initiative to condense all technical diplomas to no more than three semesters. The benefit for students to complete the TD in the span of 12 moths is enormous. Rapid entry into the workforce by BRCC graduates improves their standard of living and the prospects for large and small employers to serve their customers.

Modifications to the Retail Management CTS and the Business Technology/ Administration CAS are intended to meet the needs of graduates for employment. In addition, the modifications will permit students continuously enrolled in the Business Administration AAS to earn the Customer Service and Sales CTC in the first semester, the Retail Management CTS in the second, the Business Administration CAS in the third, and the AAS after the fourth semester. The certificates are expected to motivate students and will allow BRCC to realize greater numbers of completers.

Modifications to the Computing and Information Systems AAS will clarify the content in and focus of the Applications Software Development concentration, and with the Cybersecurity concentration, meet the demands of local companies in nearly every field. For students interested in entering the workforce rather than pursuing the conceptual basis of computer science (e.g., the Computer Science AS), the Cybersecurity concentration opens up great opportunities.

For program additions and modifications, LCTCS will benefit from the positive impact of the employment of BRCC graduates in the communities the Colleges serves, which justifies the support of the System to the College. The proposed actions support BRCC's mission to be the preferred provider of talent for a global marketplace.

Program deletions:

Deletion of the Landscape Technician CTS demonstrates compliance with the policies of the Board of Regents and with the best practices for offering credentials that align with those policies. The deletion of the Customer Service CTS is linked to the development of the Customer Service and Sales CTC, which, with the National Retail Foundation IBC, improves employment opportunities for students.

SIGNATURES:

College Chief Academic Officer — Date: 5/6/21

College Chief Executive Officer — Date: 5/4/21

Horticulture Technician (Technical Diploma)

This program is designed to prepare students for employment in the areas of production and management in horticultural enterprises. It includes instruction and practical experience in the lab which is equipped and managed according to industry standards. Upon graduation of this program students are qualified to take LA State examinations to become licensed horticultural professionals such as Arborists, Horticulturists, Landscape Contractors, and Certified Commercial Pesticide Applicators. Permits may also be obtained to become Nursery Stock and Cut Flower Dealers.

To receive this diploma, the student must:

- Have a cumulative GPA of 2.00 or better in all credit hours to be used towards the degree.
- Earn a "C" or better in all coursework.
- Complete the coursework listed below.

Program Outcomes. Upon successful completion of the program, the graduate will be able to:

1. Demonstrate the skills needed for entry and intermediate levels of employment in the areas of production and management in horticultural enterprises.
2. Demonstrate the skills needed for nurseries, landscaping, turf installation, interior-scaping, and professional lawn care.
3. Demonstrate the ability to install plants and diagnose ailments in plants (including lawns), knowledge of laws and regulations of the industry, and specialize in plant identification.
4. Demonstrate safe and efficient work practices, legal and efficient work practices, licensed and certified knowledge of the field, employability skills, and strong work ethics.
5. Demonstrate knowledge and skills necessary to pass licensing exams administered by the Louisiana Department of Agriculture and Forestry, Horticulture Commission, and the Louisiana Nursery and Landscape Association.

PROGRAM OF STUDY

First Semester		**Credit Hours**
HORT 1113	Introduction to Plant Science	**3**
HORT 1123	Native Plants of Louisiana I	**3**
HORT 1133	Plant Propagation	**3**
HORT 1141	Louisiana Laws and Regulations	**1**
HORT 1154	Soils, Fertilizers, and Water	**4**
HORT 1162	Horticulture Lab I	**2**
	Semester Total:	**16**

Second Semester		**Credit Hours**
HORT 1213	Greenhouse Procedures	**3**
HORT 1222	Turfgrass	**2**
HORT 1232	Introduction to Irrigation	**2**
HORT 1244	Plant Pest Control	**4**
HORT 1253	Native Plants of Louisiana II	**3**
HORT 1262	Horticulture Lab II	**2**
	Semester Total:	**16**

Third Semester		**Credit Hours**
HORT 1313	Landscape Calculations	**3**
HORT 1322	Landscaping Equipment	**2**
HORT 1336	Landscaping	**6**

HORT 1342	Horticulture Lab III	**2**
	Semester Total:	**13**
	Total Program Credit Hours:	**45**

Horticulture Credentials Available:

		Credit Hours
HORT 1113	Introduction to Plant Science	**3**
HORT 1123	Native Plants of Louisiana I	**3**
HORT 1133	Plant Propagation	**3**
HORT 1141	Louisiana Laws and Regulations	**1**
HORT 1154	Soils, Fertilizers, and Water	**4**
HORT 1162	Horticulture Lab I	**2**
HORT 1213	Greenhouse Procedures	**3**
HORT 1222	Turfgrass	**2**
	CTS: Ornamental and Turf Pest Control Technician	**21**

For more information, contact the Division of Technical Education at (225)-216-8367.

Combined	Industry-Based Certification	Certifying Body	CIP	key	Xenegrade Characters	Program Area
01060401	Ornamental and Tuf Pest Control	Louisiana Department of Agriculture and Forestry	010604	01	Ornamental and Tuf Pest Control	Agriculture

O*NET OnLine

Summary Report for:

37-3012.00 - Pesticide Handlers, Sprayers, and Applicators, Vegetation

Updated 2020

Bright Outlook

Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or crops. Usually requires specific training and state or federal certification.

Sample of reported job titles: Chemical Applicator, Integrated Pest Management Technician (IPM Technician), Lawn Specialist, Lawn Technician, Licensed Pesticide Applicator, Pest Control Technician, Pesticide Applicator, Spray Applicator, Spray Technician, Tree and Shrub Technician

View report: Summary | Details | Custom | Easy Read | Veterans | Español

Tasks | Technology Skills | Tools Used | Knowledge | Skills | Abilities | Work Activities | Detailed Work Activities | Work Context | Job Zone | Education | Credentials | Interests | Work Styles | Work Values | Related Occupations | Wages & Employment | Job Openings | Additional Information

Tasks

5 of 9 displayed

- Mix pesticides, herbicides, or fungicides for application to trees, shrubs, lawns, or botanical crops.
- Fill sprayer tanks with water and chemicals, according to formulas.
- Lift, push, and swing nozzles, hoses, and tubes to direct spray over designated areas.
- Identify lawn or plant diseases to determine the appropriate course of treatment.
- Cover areas to specified depths with pesticides, applying knowledge of weather conditions, droplet sizes, elevation-to-distance ratios, and obstructions.

back to top

Technology Skills

All 3 displayed **Show 19 tools used**

- **Analytical or scientific software** — Rate calculation software; Unit conversion software
- **Data base user interface and query software** — Customer database software
- **Inventory management software** — Materials inventory software

back to top

Knowledge

5 of 12 displayed

- **Biology** — Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.
- **Customer and Personal Service** — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- **Production and Processing** — Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
- **English Language** — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- **Administration and Management** — Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

back to top

Skills

5 of 11 displayed

- **Active Listening** — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- **Critical Thinking** — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- **Speaking** — Talking to others to convey information effectively.
- **Time Management** — Managing one's own time and the time of others.
- **Complex Problem Solving** — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

back to top

Abilities

5 of 18 displayed

- **Near Vision** — The ability to see details at close range (within a few feet of the observer).
- **Arm-Hand Steadiness** — The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- **Control Precision** — The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- **Deductive Reasoning** — The ability to apply general rules to specific problems to produce answers that make sense.
- **Oral Comprehension** — The ability to listen to and understand information and ideas presented through spoken words and sentences.

back to top

Work Activities

5 of 29 displayed

- **Operating Vehicles, Mechanized Devices, or Equipment** — Running, maneuvering, navigating, or driving vehicles or mechanized equipment, such as forklifts, passenger vehicles, aircraft, or water craft.
- **Monitor Processes, Materials, or Surroundings** — Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- **Getting Information** — Observing, receiving, and otherwise obtaining information from all relevant sources.
- **Performing General Physical Activities** — Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials.
- **Handling and Moving Objects** — Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.

back to top

Detailed Work Activities

5 of 8 displayed

- Prepare chemicals for work application.
- Treat greenery or surfaces with protective substances.
- Inspect landscaping to determine treatment needs.
- Operate grounds maintenance equipment.
- Clean equipment or supplies.

back to top

Work Context

5 of 32 displayed

- **Outdoors, Exposed to Weather** — 93% responded “Every day.”
- **In an Enclosed Vehicle or Equipment** — 87% responded “Every day.”
- **Wear Common Protective or Safety Equipment such as Safety Shoes, Glasses, Gloves, Hearing Protection, Hard Hats, or Life Jackets** — 79% responded “Every day.”
- **Frequency of Decision Making** — 74% responded “Every day.”
- **Exposed to Contaminants** — 77% responded “Every day.”

back to top

Job Zone

Title	Job Zone Two: Some Preparation Needed
Education	These occupations usually require a high school diploma.
Related Experience	Some previous work-related skill, knowledge, or experience is usually needed. For example, a teller would benefit from experience working directly with the public.
Job Training	Employees in these occupations need anywhere from a few months to one year of working with experienced employees. A recognized apprenticeship program may be associated with these occupations.
Job Zone Examples	These occupations often involve using your knowledge and skills to help others. Examples include orderlies, counter and rental clerks, customer service representatives, security guards, upholsterers, and tellers.
SVP Range	(4.0 to < 6.0)

back to top

Education

Percentage of Respondents	Education Level Required
56	High school diploma or equivalent
16	Post-secondary certificate
15	Less than high school diploma

back to top

Credentials

Find Training | Find Certifications | Find Licenses | APPRENTICESHIP.GOV

back to top

Interests

All 2 displayed

Interest code: **RC** Want to discover your interests? Take the O*NET Interest Profiler at My Next Move.

- **Realistic** — Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.
- **Conventional** — Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.

back to top

Work Styles

5 of 16 displayed

- **Dependability** — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- **Attention to Detail** — Job requires being careful about detail and thorough in completing work tasks.
- **Independence** — Job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.
- **Cooperation** — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.
- **Integrity** — Job requires being honest and ethical.

back to top

Work Values

All 3 displayed

- **Support** — Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.
- **Independence** — Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.
- **Working Conditions** — Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.

back to top

Related Occupations

5 of 10 displayed

45-4011.00	Forest and Conservation Workers
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door
51-8021.00	Stationary Engineers and Boiler Operators
53-3032.00	Heavy and Tractor-Trailer Truck Drivers Bright Outlook
53-6051.07	Transportation Vehicle, Equipment and Systems Inspectors, Except Aviation

back to top

Wages & Employment Trends

Median wages (2020) $17.61 hourly, $36,630 annual

State wages Louisiana Go

Local wages ZIP Code: 70806 Go

Employment (2019) 38,100 employees

Projected growth (2019-2029) ■■■■ Much faster than average (8% or higher)

Projected job openings (2019-2029) 5,000

State trends Louisiana Go

Top industries (2019) Administrative and Support Services
Agriculture, Forestry, Fishing, and Hunting

Source: Bureau of Labor Statistics 2020 wage data and 2019-2029 employment projections. "Projected growth" represents the estimated change in total employment over the projections period (2019-2029). "Projected job openings" represent openings due to growth and replacement.

back to top

Job Openings on the Web

Find Jobs

back to top

Sources of Additional Information

All 1 displayed

Disclaimer: Sources are listed to provide additional information on related jobs, specialties, and/or industries. Links to non-DOL Internet sites are provided for your convenience and do not constitute an endorsement.

- Occupational Outlook Handbook: Grounds maintenance workers

back to top

O*NET OnLine

Local Wages for:

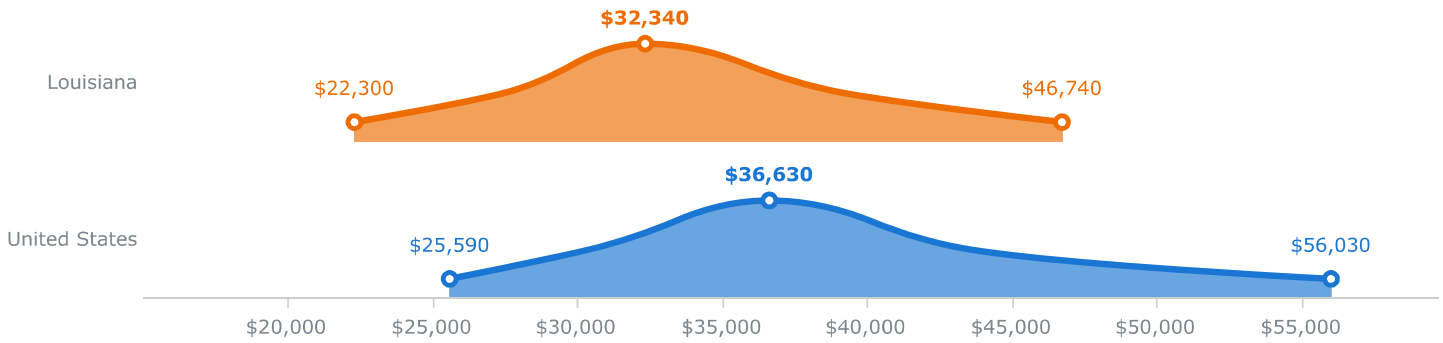
37-3012.00 - Pesticide Handlers, Sprayers, and Applicators, Vegetation

Bright Outlook

View wages for state: Louisiana Go

View wages near ZIP Code: 70806 Go

View wages: **Annual** Hourly



In Baton Rouge, LA:

No data available.

In Louisiana:

- Workers on average earn **$32,340.**
- 10% of workers earn **$22,300 or less.**
- 10% of workers earn **$46,740 or more**.

In the United States:

- Workers on average earn **$36,630.**
- 10% of workers earn **$25,590 or less.**
- 10% of workers earn **$56,030 or more.**

Source: Bureau of Labor Statistics 2020 wage data.

Full Details

Save Table (XLSX/CSV)

Location	Annual Low (10%)	Annual Q_L (25%)	Annual Median (50%)	Annual Q_U (75%)	Annual High (90%)
United States	$25,590	$30,440	$36,630	$43,560	$56,030
Louisiana	$22,300	$27,510	$32,340	$39,140	$46,740
Lafayette, LA	$26,720	$29,210	$33,890	$40,560	$47,490
New Orleans-Metairie, LA	$27,780	$30,240	$38,170	$50,210	$98,240

O*NET OnLine

Local Wages for:

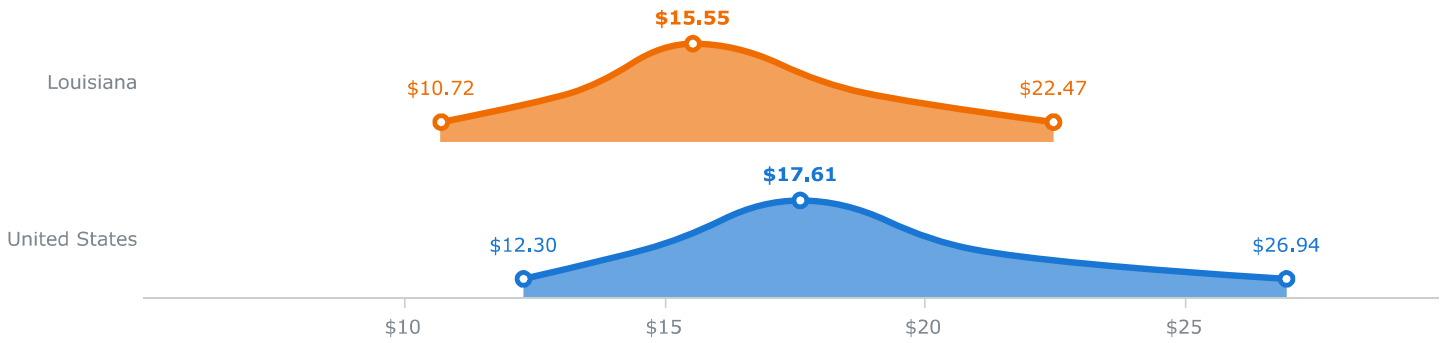
37-3012.00 - Pesticide Handlers, Sprayers, and Applicators, Vegetation

Bright Outlook

View wages for state: Louisiana Go

View wages near ZIP Code: 70806 Go

View wages: Annual **Hourly**



In Baton Rouge, LA:

No data available.

In Louisiana:

- Workers on average earn **$15.55** per hour.
- 10% of workers earn **$10.72 or less** per hour.
- 10% of workers earn **$22.47 or more** per hour.

In the United States:

- Workers on average earn **$17.61** per hour.
- 10% of workers earn **$12.30 or less** per hour.
- 10% of workers earn **$26.94 or more** per hour.

Source: Bureau of Labor Statistics 2020 wage data.

Full Details

Save Table (XLSX/CSV)

Location	Hourly Low (10%)	Hourly Q_L (25%)	Hourly Median (50%)	Hourly Q_U (75%)	Hourly High (90%)
United States	$12.30	$14.64	$17.61	$20.94	$26.94
Louisiana	$10.72	$13.22	$15.55	$18.82	$22.47
Lafayette, LA	$12.84	$14.04	$16.29	$19.50	$22.83
New Orleans-Metairie, LA	$13.36	$14.54	$18.35	$24.14	$47.23

LOUISIANA WORKFORCE COMMISSION

LDOL Department of Labor

Appendix B: Baton Rouge- Capital - Regional Labor Market Area 2
Long Term Projections for All Occupations to 2026
(in order by occupational code)

RLMA 2 : Ascension, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, Tangipahoa, Washington, West Baton Rouge, & West Feliciana (except 37-3012, which is for all of Louisiana)

Star Rating [1]	Stars	Occ. Code [2]	Occupational Title [3]	2016 Estimate [4]	2026 Projected [5]	10 Year Growth [6]	Annual New Growth [7]	Annual Exits [8]	Annual Transfers [9]	Annual Total Openings [10]	2018 RLMA 2 Hourly Average Wage [11]	2018 RLMA 2 Annual Average Wage [12]	2018 RLMA 2 Hourly Avg. Wage - Lowest 10% [13]	2018 RLMA 2 Annual Avg. Wage - Lowest 10% [14]	2018 RLMA 2 Hourly Avg. Wage - Highest 10% [15]	2018 RLMA 2 Annual Avg. Wage - Highest 10% [16]	Most Significant Source of Education or Training [17]	Work Experience	Job Training	Occupational License Required [18]
★★★★	4	15-1122	Information Security Analysts	260	370	110	10	10	20	30	$35.39	$73,620	$21.77	$45,283	$48.83	$101,557	Bachelor's Degree	< 5 years	Occupation-specific training	
★★★★★	5	15-1133	Software Developers, Systems Software	200	250	50	10	0	10	20	$36.47	$75,851	$25.87	$53,817	$49.01	$101,948	Bachelor's Degree	None	Occupation-specific training	
★★★★★	5	15-1142	Network and Computer Systems Administrators	650	890	250	20	10	40	70	$33.87	$70,443	$21.85	$45,438	$47.25	$98,290	Bachelor's Degree	None	Occupation-specific training	
★★★★	4	15-1152	Computer Network Support Specialists	470	580	110	10	10	30	50	$25.83	$53,728	$17.05	$35,457	$37.28	$77,535	Associate's Degree	None	Occupation-specific training	
★★★	3	37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	870	960	90	10	40	70	120	$14.28	$29,703	$9.28	$19,311	$19.08	$39,686	High school diploma or equivalent	None	Moderate-term on-the-job training	
★★★	3	43-4051	Customer Service Representatives	5,020	5,530	510	50	270	400	720	$15.62	$32,482	$10.47	$21,781	$22.60	$47,000	Postsecondary non-degree award	None	Short-term on-the-job training	

1 Stars represent occupational outlook and wages. Five star occupations have the best outlook and pay the highest wages.

2 Unique code assigned to each occupation describing knowledge, skills and abilities necessary to perform a variety of activities and tasks.

http://online.onetcenter.org/

3 Title of the occupation.

4 2016 Annual Average employment from employer payroll files, with estimates for self-employed workers.

5 2026 Projected employment estimate includes new jobs and replacement needs of employers.

6 Projected 10 year growth in an occupation.

7 Number of projected new jobs for the occupation.

8 Number of jobs needed to fill those workers leaving an occupation.

9 Number of jobs needed to fill those workers retiring.

10 Annual job openings as a function of job separations (retirements + turnover) + new growth.

11 2018 Hourly average wage for all workers in this occupation.

12 2018 Annual average wage for all workers in this occupation.

13 Average hourly wage for lowest 10 percent of workers in this occupation.

14 Average annual wage for lowest 10 percent of workers in this occupation.

15 Average hourly wage for highest 10 percent of workers in this occupation.

16 Annual average wage of highest 10 percent of workers in this occupation.

17 Most Significant Source of Education- Researched and designated by the Bureau of Labor Statistics (BLS) and enhanced by Louisiana Workforce Commission

Long-Term Tng. & Exp. = Long-Term training and experience (more than 12 months of on-the-job training)
Mod.-term Tng. & Exp. = Moderate-term training and experience (1 to 12 months of combined on-the-job experience and informal training)
Short-term Tng. & Exp. = Short-term training and experience (up to 1 month of on-the-job experience)

18 Louisiana Licensing Guide reference describing those occupations regulated by state boards, commissions or agencies.

http://www.laworks.net/Downloads/LMI/licensingguide.pdf

Appendix C - Customer Service and Sales CTC

Customer Service and Sales (Career and Technical Certificate)

The Customer Service and Sales Career and Technical Certificate is designed to prepare students with information and practice in utilizing appropriate customer service skills in current and future career and community endeavors. It includes 12 total hours of coursework in business communications, selling techniques, and business computer applications. These courses allow students to develop a broad range of skills in key areas that will enhance their ability to deliver excellent customer service in any field or industry. Students will have the opportunity to receive a professional credential upon passing a certification exam. This program of study is not designed for college transfer.

To receive this certificate, the student must:

- Have a cumulative GPA of 2.00 or better in all credits to be used towards the certificate.
- Earn a "C" or better in all courses.
- Complete the coursework listed below.

Program Outcomes. Upon successful completion of the program, the graduate will be able to:

1. Describe various approaches to personal selling and its role in organizations.
2. Identify the key functions of a business.
3. Demonstrate the ability to work successfully in a team.
4. Demonstrate skills (create, edit, organize, and visually enhance documents) using four basic software applications incorporated in Microsoft Office, with an emphasis on advanced topics in Microsoft Excel.

PROGRAM OF STUDY

Required Courses:		**Credit Hours**
BUSN 1003	Introduction to Business	**3**
BUSN 1503	Professional Selling	**3**
BUSN 2403	Business Communication	**3**
CSCI 2203	Microcomputer Applications in Business	**3**
	Total Program Hours:	**12**

For more information, contact the Division of Business, (225) 216-8154.

O*NET OnLine

Summary Report for:
43-4051.00 - Customer Service Representatives

Updated 2021

Bright Outlook

Interact with customers to provide basic or scripted information in response to routine inquiries about products and services. May handle and resolve general complaints. Excludes individuals whose duties are primarily installation, sales, repair, and technical support.

Sample of reported job titles: Account Representative, Call Center Representative, Client Services Representative, Customer Care Representative (CCR), Customer Service Agent, Customer Service Representative (Customer Service Rep), Customer Service Specialist, Member Services Representative, Sales Facilitator

View report: Summary | Details | Custom | Easy Read | Veterans | Español

Tasks | Technology Skills | Tools Used | Knowledge | Skills | Abilities | Work Activities | Detailed Work Activities | Work Context | Job Zone | Education | Credentials | Interests | Work Styles | Work Values | Related Occupations | Wages & Employment | Job Openings | Additional Information

Tasks

5 of 15 displayed

- Confer with customers by telephone or in person to provide information about products or services, take or enter orders, cancel accounts, or obtain details of complaints.
- Check to ensure that appropriate changes were made to resolve customers' problems.
- Keep records of customer interactions or transactions, recording details of inquiries, complaints, or comments, as well as actions taken.
- Resolve customers' service or billing complaints by performing activities such as exchanging merchandise, refunding money, or adjusting bills.
- Complete contract forms, prepare change of address records, or issue service discontinuance orders, using computers.

back to top

Technology Skills

5 of 44 displayed **Show 13 tools used**

- **Customer relationship management CRM software** — Blackbaud The Raiser's Edge; Salesforce software; Salesforce.com Salesforce CRM; Telemation e-CRM
- **Data base user interface and query software** — Airtable; Data entry software; Oracle software; Yardi
- **Electronic mail software** — Astute Solutions PowerCenter; IBM Notes; Microsoft Exchange; Microsoft Outlook
- **Enterprise resource planning ERP software** — Microsoft Dynamics GP; NetSuite ERP; Oracle JD Edwards EnterpriseOne; Oracle PeopleSoft
- **Medical software** — Healthcare common procedure coding system HCPCS; Medical condition coding software; Medical procedure coding software; MEDITECH software

Hot Technology — a technology requirement frequently included in employer job postings.

back to top

Knowledge

All 4 displayed

- **Customer and Personal Service** — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- **English Language** — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- **Clerical** — Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.
- **Computers and Electronics** — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

back to top

Skills

5 of 10 displayed

- **Active Listening** — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- **Speaking** — Talking to others to convey information effectively.
- **Service Orientation** — Actively looking for ways to help people.
- **Reading Comprehension** — Understanding written sentences and paragraphs in work related documents.

- **Critical Thinking** — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

back to top

Abilities

5 of 11 displayed

- **Oral Comprehension** — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- **Oral Expression** — The ability to communicate information and ideas in speaking so others will understand.
- **Speech Clarity** — The ability to speak clearly so others can understand you.
- **Speech Recognition** — The ability to identify and understand the speech of another person.
- **Near Vision** — The ability to see details at close range (within a few feet of the observer).

back to top

Work Activities

5 of 19 displayed

- **Getting Information** — Observing, receiving, and otherwise obtaining information from all relevant sources.
- **Interacting With Computers** — Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
- **Communicating with Persons Outside Organization** — Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.
- **Communicating with Supervisors, Peers, or Subordinates** — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- **Establishing and Maintaining Interpersonal Relationships** — Developing constructive and cooperative working relationships with others, and maintaining them over time.

back to top

Detailed Work Activities

5 of 14 displayed

- Discuss goods or services information with customers or patrons.
- Respond to customer problems or complaints.
- Maintain financial or account records.
- Refer customers to appropriate personnel.
- Calculate costs of goods or services.

back to top

Work Context

5 of 20 displayed

- **Telephone** — 100% responded “Every day.”
- **Contact With Others** — 85% responded “Constant contact with others.”
- **Electronic Mail** — 74% responded “Every day.”
- **Face-to-Face Discussions** — 66% responded “Every day.”
- **Importance of Being Exact or Accurate** — 57% responded “Extremely important.”

back to top

Job Zone

Title	Job Zone Two: Some Preparation Needed
Education	These occupations usually require a high school diploma.
Related Experience	Some previous work-related skill, knowledge, or experience is usually needed. For example, a teller would benefit from experience working directly with the public.
Job Training	Employees in these occupations need anywhere from a few months to one year of working with experienced employees. A recognized apprenticeship program may be associated with these occupations.
Job Zone Examples	These occupations often involve using your knowledge and skills to help others. Examples include orderlies, counter and rental clerks, customer service representatives, security guards, upholsterers, and tellers.
SVP Range	(4.0 to < 6.0)

back to top

Education

Percentage of Respondents	Education Level Required

67	High school diploma or equivalent ?
16	Bachelor's degree
6	Some college, no degree

back to top

Credentials

Find Training | Find Certifications | APPRENTICESHIP.GOV

back to top

Interests

All 3 displayed

Interest code: **ESC** Want to discover your interests? Take the O*NET Interest Profiler at My Next Move.

- **Enterprising** — Enterprising occupations frequently involve starting up and carrying out projects. These occupations can involve leading people and making many decisions. Sometimes they require risk taking and often deal with business.
- **Social** — Social occupations frequently involve working with, communicating with, and teaching people. These occupations often involve helping or providing service to others.
- **Conventional** — Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.

back to top

Work Styles

5 of 16 displayed

- **Attention to Detail** — Job requires being careful about detail and thorough in completing work tasks.
- **Cooperation** — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.
- **Integrity** — Job requires being honest and ethical.
- **Dependability** — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- **Concern for Others** — Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job.

back to top

Work Values

All 3 displayed

- **Relationships** — Occupations that satisfy this work value allow employees to provide service to others and work with co-workers in a friendly non-competitive environment. Corresponding needs are Co-workers, Moral Values and Social Service.
- **Support** — Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.
- **Independence** — Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.

back to top

Related Occupations

5 of 9 displayed

43-3011.00	Bill and Account Collectors
43-4081.00	Hotel, Motel, and Resort Desk Clerks
43-4111.00	Interviewers, Except Eligibility and Loan
43-4171.00	Receptionists and Information Clerks Bright Outlook
43-4181.00	Reservation and Transportation Ticket Agents and Travel Clerks

back to top

Wages & Employment Trends

Median wages (2020) $17.23 hourly, $35,830 annual

State wages Louisiana Go

Local wages ZIP Code: 70806 Go

Employment (2019) 3,018,800 employees

Projected growth (2019-2029)	Decline (-1% or lower)
Projected job openings (2019-2029)	350,200
State trends	Louisiana Go
Top industries (2019)	Finance and Insurance Administrative and Support Services

Source: Bureau of Labor Statistics 2020 wage data and 2019-2029 employment projections. "Projected growth" represents the estimated change in total employment over the projections period (2019-2029). "Projected job openings" represent openings due to growth and replacement.

back to top

Job Openings on the Web

Find Jobs

back to top

Sources of Additional Information

All 2 displayed

Disclaimer: Sources are listed to provide additional information on related jobs, specialties, and/or industries. Links to non-DOL Internet sites are provided for your convenience and do not constitute an endorsement.

- Occupational Outlook Handbook: Customer service representatives
- U.S. Chamber of Commerce

back to top

O*NET OnLine

Local Wages for:

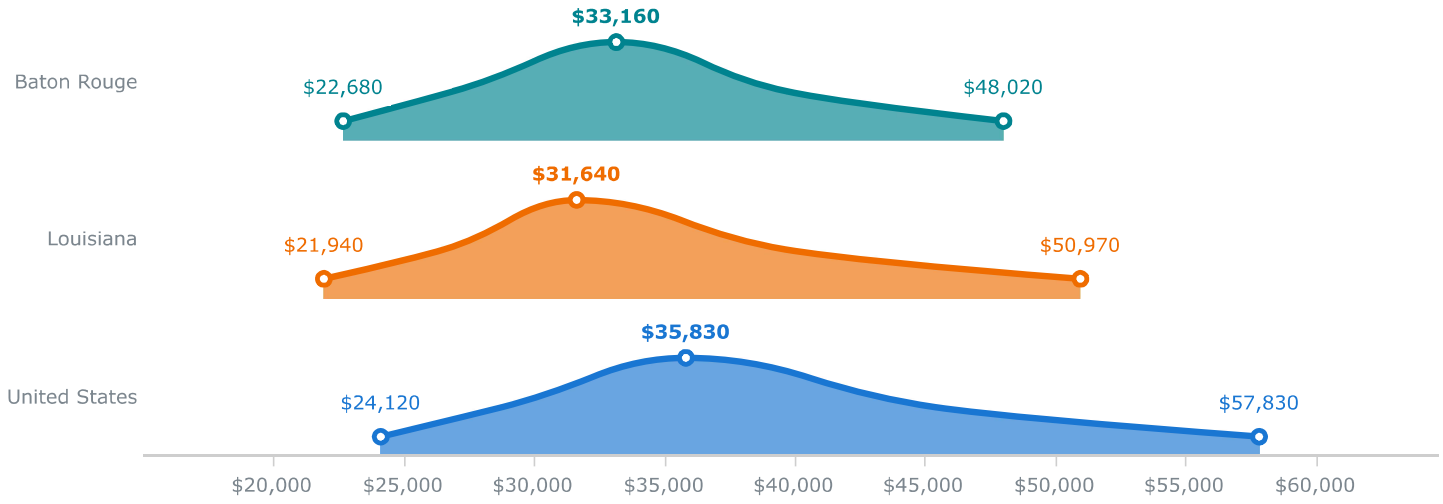
43-4051.00 - Customer Service Representatives

Bright Outlook

View wages for state: Louisiana Go

View wages near ZIP Code: 70806 Go

View wages: **Annual** Hourly



In Baton Rouge, LA:

- Workers on average earn **$33,160.**
- 10% of workers earn **$22,680 or less.**
- 10% of workers earn **$48,020 or more**.

In Louisiana:

- Workers on average earn **$31,640.**
- 10% of workers earn **$21,940 or less.**
- 10% of workers earn **$50,970 or more**.

In the United States:

- Workers on average earn **$35,830.**
- 10% of workers earn **$24,120 or less.**
- 10% of workers earn **$57,830 or more.**

Source: Bureau of Labor Statistics 2020 wage data.

Full Details

Save Table (XLSX/CSV)

Location	Annual Low (10%)	Annual Q_L (25%)	Annual Median (50%)	Annual Q_U (75%)	Annual High (90%)
United States	$24,120	$28,760	$35,830	$45,400	$57,830
Louisiana	$21,940	$26,580	$31,640	$39,630	$50,970
Baton Rouge, LA	$22,680	$26,890	$33,160	$39,710	$48,020
Alexandria, LA	$21,710	$24,590	$28,820	$33,570	$40,750
Central Louisiana nonmetropolitan area	$18,890	$22,420	$28,270	$35,460	$39,740
Hammond, LA	$22,280	$26,160	$30,600	$36,550	$41,320
Houma-Thibodaux, LA	$20,470	$23,610	$29,100	$35,940	$41,210
Lafayette, LA	$21,710	$26,770	$32,280	$38,900	$46,930
Lake Charles, LA	$18,310	$22,530	$29,010	$37,000	$46,420
Monroe, LA	$22,910	$26,370	$30,330	$36,340	$41,040

New Orleans-Metairie, LA	$22,340	$27,020	$31,510	$38,840	$50,300
Northeast Louisiana nonmetropolitan area	$19,050	$24,080	$32,180	$39,100	$46,600
Shreveport-Bossier City, LA	$23,300	$27,740	$32,400	$51,440	$60,870
Southwest Louisiana nonmetropolitan area	$20,850	$26,140	$30,370	$40,100	$49,880

O*NET OnLine

Local Wages for:

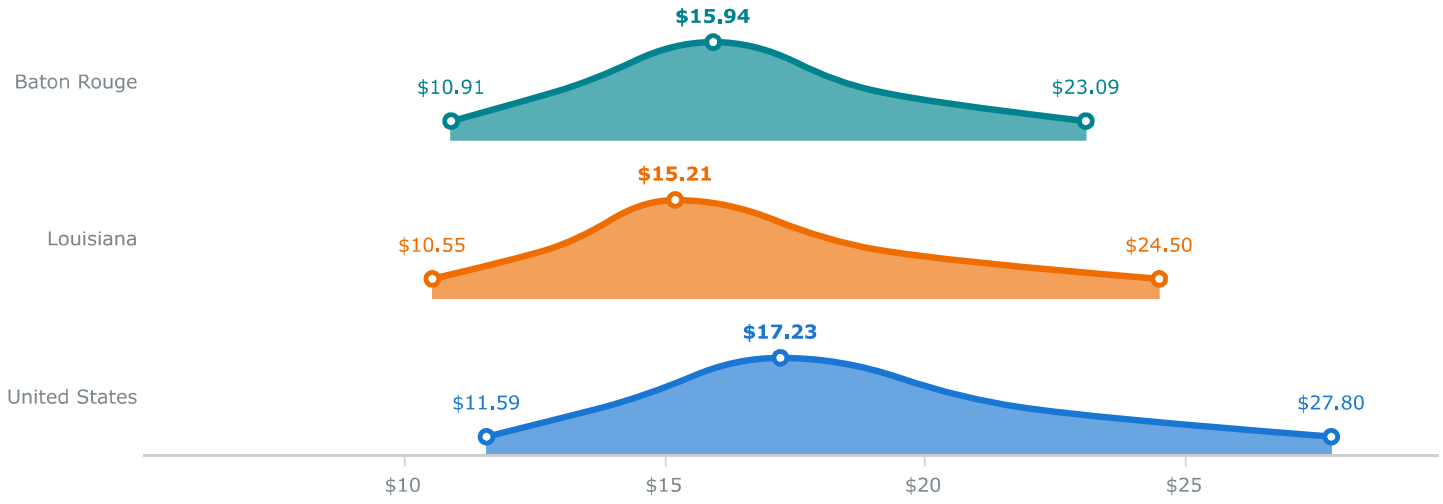
43-4051.00 - Customer Service Representatives

Bright Outlook

View wages for state: Louisiana Go

View wages near ZIP Code: 70806 Go

View wages: Annual | Hourly



In Baton Rouge, LA:

- Workers on average earn **$15.94** per hour.
- 10% of workers earn **$10.91 or less** per hour.
- 10% of workers earn **$23.09 or more** per hour.

In Louisiana:

- Workers on average earn **$15.21** per hour.
- 10% of workers earn **$10.55 or less** per hour.
- 10% of workers earn **$24.50 or more** per hour.

In the United States:

- Workers on average earn **$17.23** per hour.
- 10% of workers earn **$11.59 or less** per hour.
- 10% of workers earn **$27.80 or more** per hour.

Source: Bureau of Labor Statistics 2020 wage data.

Full Details

Save Table (XLSX/CSV)

Location	Hourly Low (10%)	Hourly Q_L (25%)	Hourly Median (50%)	Hourly Q_U (75%)	Hourly High (90%)
United States	$11.59	$13.83	$17.23	$21.83	$27.80
Louisiana	$10.55	$12.78	$15.21	$19.05	$24.50
Baton Rouge, LA	$10.91	$12.93	$15.94	$19.09	$23.09
Alexandria, LA	$10.44	$11.82	$13.86	$16.14	$19.59
Central Louisiana nonmetropolitan area	$9.08	$10.78	$13.59	$17.05	$19.11
Hammond, LA	$10.71	$12.58	$14.71	$17.57	$19.86
Houma-Thibodaux, LA	$9.84	$11.35	$13.99	$17.28	$19.81
Lafayette, LA	$10.44	$12.87	$15.52	$18.70	$22.56
Lake Charles, LA	$8.81	$10.83	$13.95	$17.79	$22.32
Monroe, LA	$11.02	$12.68	$14.58	$17.47	$19.73

New Orleans-Metairie, LA	$10.74	$12.99	$15.15	$18.67	$24.18
Northeast Louisiana nonmetropolitan area	$9.16	$11.58	$15.47	$18.80	$22.41
Shreveport-Bossier City, LA	$11.20	$13.33	$15.58	$24.73	$29.26
Southwest Louisiana nonmetropolitan area	$10.02	$12.57	$14.60	$19.28	$23.98

Horticulture Technician (Technical Diploma)

This program is designed to prepare students for employment in the areas of production and management in horticultural enterprises. It includes instruction and practical experience in the lab which is equipped and managed according to industry standards. Upon graduation of this program students are qualified to take LA State examinations to become licensed horticultural professionals such as Arborists, Horticulturists, Landscape Contractors, and Certified Commercial Pesticide Applicators. Permits may also be obtained to become Nursery Stock and Cut Flower Dealers.

To receive this diploma, the student must:

- Have a cumulative GPA of 2.00 or better in all credit hours to be used towards the degree.
- Earn a "C" or better in all coursework.
- Complete the coursework listed below.

Program Outcomes. Upon successful completion of the program, the graduate will be able to:

1. Demonstrate the skills needed for entry and intermediate levels of employment in the areas of production and management in horticultural enterprises.
2. Demonstrate the skills needed for nurseries, landscaping, turf installation, interior-scaping, and professional lawn care.
3. Demonstrate the ability to install plants and diagnose ailments in plants (including lawns), knowledge of laws and regulations of the industry, and specialize in plant identification.
4. Demonstrate safe and efficient work practices, legal and efficient work practices, licensed and certified knowledge of the field, employability skills, and strong work ethics.
5. Demonstrate knowledge and skills necessary to pass licensing exams administered by the Louisiana Department of Agriculture and Forestry, Horticulture Commission, and the Louisiana Nursery and Landscape Association.

PROGRAM OF STUDY

First Semester		**Credit Hours**
HORT 1113	Introduction to Plant Science	**3**
HORT 1123	Native Plants of Louisiana I	**3**
HORT 1133	Plant Propagation	**3**
HORT 1141	Louisiana Laws and Regulations	**1**
HORT 1154	Soils, Fertilizers, and Water	**4**
HORT 1162	Horticulture Lab I	**2**
	Semester Total:	**16**

Second Semester		**Credit Hours**
HORT 1213	Greenhouse Procedures	**3**
HORT 1222	Turfgrass	**2**
HORT 1232	Introduction to Irrigation	**2**
HORT 1244	Plant Pest Control	**4**
HORT 1253	Native Plants of Louisiana II	**3**
HORT 1262	Horticulture Lab II	**2**
	Semester Total:	**16**

Third Semester		**Credit Hours**
HORT 1313	Landscape Calculations	**3**
HORT 1322	Landscaping Equipment	**2**
HORT 1336	Landscaping	**6**

HORT 1342	Horticulture Lab III	**2**
	Semester Total:	**13**
	Total Program Credit Hours:	**45**

Horticulture Credentials Available:

		Credit Hours
HORT 1113	Introduction to Plant Science	**3**
HORT 1123	Native Plants of Louisiana I	**3**
HORT 1133	Plant Propagation	**3**
HORT 1141	Louisiana Laws and Regulations	**1**
HORT 1154	Soils, Fertilizers, and Water	**4**
HORT 1162	Horticulture Lab I	**2**
HORT 1213	Greenhouse Procedures	**3**
HORT 1222	Turfgrass	**2**
	CTS: Ornamental and Turf Pest Control Technician	**21**

For more information, contact the Division of Technical Education at (225)-216-8367.

IES (//ies.ed.gov)

Search Go

NCES National Center for Education Statistics (/)

THE CLASSIFICATION OF INSTRUCTIONAL PROGRAMS (/DEFAULT.ASPX?Y=56)

MENU

CIP 2020 Change Year Quick CIP Go

Detail for CIP Code 11.0501

Print

Title: Computer Systems Analysis/Analyst.

Definition: A program that prepares individuals to apply programming and systems analysis principles to the selection, implementation, and troubleshooting of customized computer and software installations across the life cycle. Includes instruction in computer hardware and software; compilation, composition, execution, and operating systems; low- and high-level languages and language programming; programming and debugging techniques; installation and maintenance testing and documentation; process and data flow analysis; user needs analysis and documentation; cost-benefit analysis; and specification design.

See also: 14.2701) Systems Engineering. (CIPDetail.aspx?y=56&cipid=90546)

Action: No Substantive Changes

Crosswalk

CIP Title or Definition Changed

CIP 2010			CIP 2020	
Code	**Title**	**Action**	**Code**	**Title**
11.0501	Computer Systems Analysis/Analyst.		11.0501 (./cipdetail.aspx?y=56&cip=11.0501)	Computer Systems Analysis/Analyst.

Illustrative Examples

- None available

Browse

11) COMPUTER AND INFORMATION SCIENCES AND SUPPORT SERVICES. (cipdetail.aspx?y=56&cipid=90374)

11.01) Computer and Information Sciences, General. (cipdetail.aspx?y=56&cipid=90375)

- 11.0101) Computer and Information Sciences, General. (cipdetail.aspx?y=56&cipid=90376)
- 11.0102) Artificial Intelligence. (cipdetail.aspx?y=56&cipid=89569)
- 11.0103) Information Technology. (cipdetail.aspx?y=56&cipid=89570)
- 11.0104) Informatics. (cipdetail.aspx?y=56&cipid=91492)
- 11.0105) Human-Centered Technology Design. (cipdetail.aspx?y=56&cipid=91803)
- 11.0199) Computer and Information Sciences, Other. (cipdetail.aspx?y=56&cipid=89571)

11.02) Computer Programming. (cipdetail.aspx?y=56&cipid=90377)

- 11.0201) Computer Programming/Programmer, General. (cipdetail.aspx?y=56&cipid=90378)
- 11.0202) Computer Programming, Specific Applications. (cipdetail.aspx?y=56&cipid=89572)
- 11.0203) Computer Programming, Vendor/Product Certification. (cipdetail.aspx?y=56&cipid=89573)
- 11.0204) Computer Game Programming. (cipdetail.aspx?y=56&cipid=91801)
- 11.0205) Computer Programming, Specific Platforms. (cipdetail.aspx?y=56&cipid=91802)
- 11.0299) Computer Programming, Other. (cipdetail.aspx?y=56&cipid=89574)

11.03) Data Processing. (cipdetail.aspx?y=56&cipid=90379)

- 11.0301) Data Processing and Data Processing Technology/Technician. (cipdetail.aspx?y=56&cipid=90380)

11.04) Information Science/Studies. (cipdetail.aspx?y=56&cipid=90381)

- 11.0401) Information Science/Studies. (cipdetail.aspx?y=56&cipid=90382)

11.05) Computer Systems Analysis. (cipdetail.aspx?y=56&cipid=90383)

- **11.0501) Computer Systems Analysis/Analyst.** (cipdetail.aspx?y=56&cipid=90384)

11.06) Data Entry/Microcomputer Applications. (cipdetail.aspx?y=56&cipid=89575)

- 11.0601) Data Entry/Microcomputer Applications, General. (cipdetail.aspx?y=56&cipid=89576)
- 11.0602) Word Processing. (cipdetail.aspx?y=56&cipid=89577)

11.0699) Data Entry/Microcomputer Applications, Other. (cipdetail.aspx?y=56&cipid=89578)

- 11.07) Computer Science. (cipdetail.aspx?y=56&cipid=90385)
  - 11.0701) Computer Science. (cipdetail.aspx?y=56&cipid=90386)
- 11.08) Computer Software and Media Applications. (cipdetail.aspx?y=56&cipid=89579)
  - 11.0801) Web Page, Digital/Multimedia and Information Resources Design. (cipdetail.aspx?y=56&cipid=89580)
  - 11.0802) Data Modeling/Warehousing and Database Administration. (cipdetail.aspx?y=56&cipid=89581)
  - 11.0803) Computer Graphics. (cipdetail.aspx?y=56&cipid=89582)
  - 11.0804) Modeling, Virtual Environments and Simulation. (cipdetail.aspx?y=56&cipid=91493)
  - 11.0899) Computer Software and Media Applications, Other. (cipdetail.aspx?y=56&cipid=89583)
- 11.09) Computer Systems Networking and Telecommunications. (cipdetail.aspx?y=56&cipid=89584)
  - 11.0901) Computer Systems Networking and Telecommunications. (cipdetail.aspx?y=56&cipid=89585)
  - 11.0902) Cloud Computing. (cipdetail.aspx?y=56&cipid=91800)
  - 11.0999) Computer Systems Networking and Telecommunications, Other. (cipdetail.aspx?y=56&cipid=93001)
- 11.10) Computer/Information Technology Administration and Management. (cipdetail.aspx?y=56&cipid=89586)
  - 11.1001) Network and System Administration/Administrator. (cipdetail.aspx?y=56&cipid=89587)
  - 11.1002) System, Networking, and LAN/WAN Management/Manager. (cipdetail.aspx?y=56&cipid=89588)
  - 11.1003) Computer and Information Systems Security/Auditing/Information Assurance. (cipdetail.aspx?y=56&cipid=89589)
  - 11.1004) Web/Multimedia Management and Webmaster. (cipdetail.aspx?y=56&cipid=89590)
  - 11.1005) Information Technology Project Management. (cipdetail.aspx?y=56&cipid=91494)
  - 11.1006) Computer Support Specialist. (cipdetail.aspx?y=56&cipid=91495)
  - 11.1099) Computer/Information Technology Services Administration and Management, Other. (cipdetail.aspx?y=56&cipid=89591)
- 11.99) Computer and Information Sciences and Support Services, Other. (cipdetail.aspx?y=56&cipid=90387)
  - 11.9999) Computer and Information Sciences and Support Services, Other. (cipdetail.aspx?y=56&cipid=90388)

Computing and Information Systems (Associate of Applied Science), Cybersecurity Concentration

The Associate of Applied Science in Computing and Information Systems provides students with the foundational knowledge necessary to meet entry-level employment needs of the regional labor market that includes Baton Rouge. Students gain knowledge, professional skills and specialized hands-on technical training to position them for entry-level network security specialists.

To receive this degree, the student must:

- Have a cumulative GPA of 2.00 of higher in all credit hours to be used towards the degree.
- Earn a "C" or better in all courses in the program of study outline below.
- Complete the coursework listed below.

Program Outcomes. Upon successful completion of the program, the graduate will be able to:

1. Apply written, oral, and graphical communication in both technical and non-technical environments
2. Utilize critical thinking skills to collect, analyze, and interpret technical data collected through investigation and experimentation
3. Evaluate the human role in security systems with an emphasis on ethics, social engineering vulnerabilities and training.
4. Use appropriate security protocols to interpret and forensically investigate security incidents.

Program of Study

First Semester		**Credit Hours**
ENGL 1013	English Composition I	**3**
BIOL 1013 or	General Biology I or	**3**
BIOL 1033	Biology for Science Majors	
MATH 1213	College Algebra	**3**
CSCI 1923	Introduction to Computers: Programming Logic and Design	**3**
CSCI 2123	Introduction to Cybersecurity	**3**
	Semester Total:	**15**

Second Semester		**Credit Hours**
CSCI 1933	Software Design and Programming I	**3**
CSCI 1953	Society and Ethics in Computing	**3**
CSCI 2113	Cloud Computing Foundations	**3**
CNET 2103	Introduction to Networking	**3**
INTE 1103	Install and Troubleshoot Part I	**3**
	Semester Total:	**15**

Third Semester		**Credit Hours**
CSCI 1943	Software Design and Programming II	**3**
CSCI 2153	Linux/Unix System Programming	**3**
CSCI 2313	Cyber and Digital Forensics	**3**
INTE 1113	Install and Troubleshoot Part II	**3**
PSYC 2013	Introduction to Psychology	**3**
	Semester Total:	**15**

Fourth Semester		**Credit Hours**
CSCI 2723	Penetration Testing and Incident Response	**3**
CSCI 2753	Information Assurance and Security	**3**
CNET 2503	PC & Network Security	**3**
INTE 2013	Windows Server Part I	**3**
HIST 1113	World Civilization to 1500	**3**
	Semester Total:	**15**

Total Program Credit Hours: 60

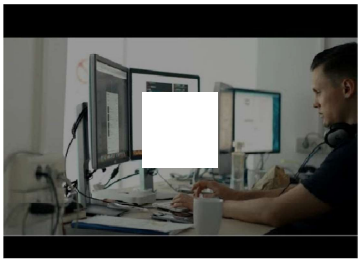
For more information, contact the Division of Science, Technology, Engineering, and Mathematics (STEM) at 225-216-8105.

Information Security Analysts

Summary

Summary

Quick Facts: Information Security Analysts	
2020 Median Pay	$103,590 per year $49.80 per hour
Typical Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	Less than 5 years
On-the-job Training	None
Number of Jobs, 2019	131,000
Job Outlook, 2019-29	31% (Much faster than average)
Employment Change, 2019-29	40,900



What Information Security Analysts Do

Information security analysts plan and carry out security measures to protect an organization's computer networks and systems.

Work Environment

Most information security analysts work for computer companies, consulting firms, or business and financial companies.

How to Become an Information Security Analyst

Most information security analyst positions require a bachelor's degree in a computer-related field. Employers usually prefer to hire analysts with experience in a related occupation.

Pay

The median annual wage for information security analysts was $103,590 in May 2020.

Job Outlook

Employment of information security analysts is projected to grow 31 percent from 2019 to 2029, much faster than the average for all occupations. Demand for information security analysts is expected to be very high, as these analysts will be needed to create innovative solutions to prevent hackers from stealing critical information or causing problems for computer networks.

State & Area Data

Explore resources for employment and wages by state and area for information security analysts.

Similar Occupations

Compare the job duties, education, job growth, and pay of information security analysts with similar occupations.

More Information, Including Links to O*NET

Learn more about information security analysts by visiting additional resources, including O*NET, a source on key characteristics of workers and occupations.

What They Do ->

What They Do

What Information Security Analysts Do

About this section

Information security analysts plan and carry out security measures to protect an organization's computer networks and systems. Their responsibilities are continually expanding as the number of cyberattacks increases.

Duties

Information security analysts typically do the following:

- Monitor their organization's networks for security breaches and investigate a violation when one occurs
- Install and use software, such as firewalls and data encryption programs, to protect sensitive information
- Prepare reports that document security breaches and the extent of the damage caused by the breaches
- Conduct penetration testing, which is when analysts simulate attacks to look for vulnerabilities in their systems before they can be exploited
- Research the latest information technology (IT) security trends
- Develop security standards and best practices for their organization
- Recommend security enhancements to management or senior IT staff
- Help computer users when they need to install or learn about new security products and procedures

Information security analysts install software, such as firewalls, to protect computer networks.

IT security analysts are heavily involved with creating their organization's disaster recovery plan, a procedure that IT employees follow in case of emergency. These plans allow for the continued operation of an organization's IT department. The recovery plan includes preventive measures such as regularly copying and transferring data to an offsite location. It also involves plans to restore proper IT functioning after a disaster. Analysts continually test the steps in their recovery plans.

Information security analysts must stay up to date on IT security and on the latest methods attackers are using to infiltrate computer systems. Analysts need to research new security technology to decide what will most effectively protect their organization.

<- Summary

Work Environment ->

Work Environment

Work Environment

About this section

Information security analysts held about 131,000 jobs in 2019. The largest employers of information security analysts were as follows:

Computer systems design and related services	26%
Finance and insurance	18
Management of companies and enterprises	9
Information	8
Administrative and support services	6

Many analysts work in IT departments and manage the security of their companies computer networks.

Many information security analysts work with other members of an information technology department, such as network administrators or computer systems analysts.

Work Schedules

Most information security analysts work full time. Information security analysts sometimes have to be on call outside of normal business hours in case of an emergency. Some work more than 40 hours per week.

<- What They Do
How to Become One
How to Become One ->

How to Become an Information Security Analyst

About this section

Most information security analyst positions require a bachelor's degree in a computer-related field. Employers usually prefer analysts to have experience in a related occupation.

There are a number of information security certifications available, and many employers prefer candidates to have certification.

Education

Information security analysts usually need at least a bachelor's degree in computer science, information assurance, programming, or a related field.

Some employers prefer applicants who have a Master of Business Administration (MBA) in information systems. Programs offering the MBA in information systems generally require 2 years of study beyond the undergraduate level and include both business and computer-related courses.

Work Experience in a Related Occupation

Information security analysts generally need to have previous experience in a related occupation. Many analysts have experience in an information technology department, often as a network or computer systems administrator. Some employers look for people who have already worked in fields related to the one in which they are hiring. For example, if the job opening is in database security, they may look for a database administrator. If they are hiring in systems security, a computer systems analyst may be an ideal candidate.

Licenses, Certifications, and Registrations

There are a number of information security certifications available, and many employers prefer candidates to have certification, which validates the knowledge and best practices required from information security analysts. Some are general information security certificates, such as the Certified Information Systems Security Professional (CISSP), while others have a more narrow focus, such as penetration testing or systems auditing.

Advancement

Information security analysts can advance to become chief security officers or another type of computer and information systems manager.

Important Qualities

Analytical skills. Information security analysts must carefully study computer systems and networks and assess risks to determine how security policies and protocols can be improved.

Detail oriented. Because cyberattacks can be difficult to detect, information security analysts must pay careful attention to computer systems and watch for minor changes in performance.

Ingenuity. Information security analysts must anticipate information security risks and implement new ways to protect their organizations' computer systems and networks.

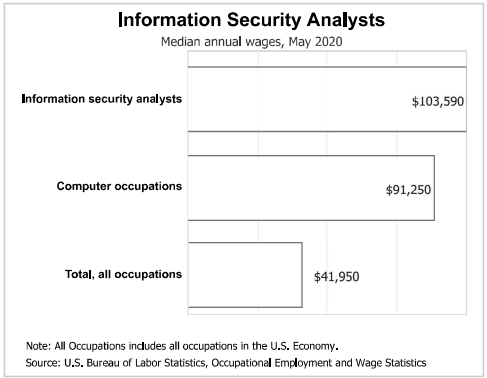
Problem-solving skills. Information security analysts must respond to security alerts and uncover and fix flaws in computer systems and networks.

<- Work Environment
Pay
Pay ->

Pay

About this section

The median annual wage for information security analysts was $103,590 in May 2020. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than $60,060, and the highest 10 percent earned more than $163,300.



In May 2020, the median annual wages for information security analysts in the top industries in which they worked were as follows:

Information	$107,310
Finance and insurance	106,430
Computer systems design and related services	104,820
Management of companies and enterprises	102,330
Administrative and support services	99,860

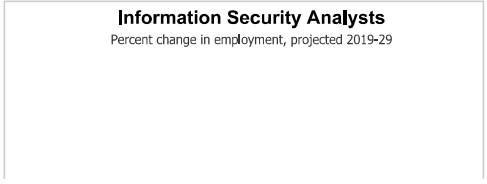
Most information security analysts work full time. Information security analysts sometimes have to be on call outside of normal business hours in case of an emergency. Some work more than 40 hours per week.

<- How to Become One
Job Outlook
Job Outlook ->

Job Outlook

About this section

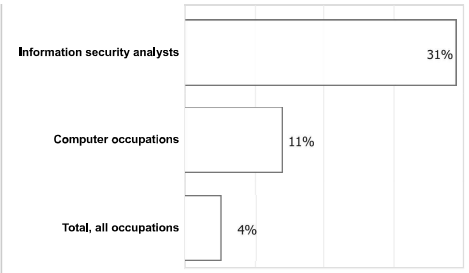
Employment of information security analysts is projected to grow 31 percent from 2019 to 2029, much faster than the average for all occupations.



Demand for information security analysts is expected to be very high. Cyberattacks have grown in frequency, and analysts will be needed to come up with innovative solutions to prevent hackers from stealing critical information or creating problems for computer networks.

Banks and financial institutions, as well as other types of corporations, will need to increase their information security capabilities in the face of growing cybersecurity threats. In addition, as the healthcare industry expands its use of electronic medical records, ensuring patients' privacy and protecting personal data are becoming more important. More information security analysts are likely to be needed to create the safeguards that will satisfy patients' concerns.

Employment of information security analysts is projected to grow 56 percent in computer systems design and related services from 2019 to 2029. The increasing adoption of cloud services by small and medium-sized businesses and a rise in cybersecurity threats will create demand for managed security services providers in this industry.



Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Employment Projections program

Job Prospects

Job prospects for information security analysts should be good. Information security analysts with related work experience will have the best prospects. For example, an applicant with experience as a database administrator would have better prospects in database security than someone without that experience.

Employment projections data for information security analysts, 2019-29

Occupational Title	SOC Code	Employment, 2019	Projected Employment, 2029	Change, 2019-29		Employment by Industry
				Percent	Numeric	
Information security analysts	15-1212	131,000	171,900	31	40,900	Get data

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

<- Pay
State & Area Data ->
State & Area Data

State & Area Data

About this section

Occupational Employment and Wage Statistics (OEWS)

The Occupational Employment and Wage Statistics (OEWS) program produces employment and wage estimates annually for over 800 occupations. These estimates are available for the nation as a whole, for individual states, and for metropolitan and nonmetropolitan areas. The link(s) below go to OEWS data maps for employment and wages by state and area.

- Information security analysts

Projections Central

Occupational employment projections are developed for all states by Labor Market Information (LMI) or individual state Employment Projections offices. All state projections data are available at www.projectionscentral.com . Information on this site allows projected employment growth for an occupation to be compared among states or to be compared within one state. In addition, states may produce projections for areas; there are links to each state's websites where these data may be retrieved.

CareerOneStop

CareerOneStop includes hundreds of occupational profiles with data available by state and metro area. There are links in the left-hand side menu to compare occupational employment by state and occupational wages by local area or metro area. There is also a salary info tool to search for wages by zip code.

<- Job Outlook
Similar Occupations ->
Similar Occupations

Similar Occupations

About this section

This table shows a list of occupations with job duties that are similar to those of information security analysts.

	OCCUPATION	JOB DUTIES	ENTRY-LEVEL EDUCATION	2020 MEDIAN PAY
	Computer and Information Research Scientists	Computer and information research scientists invent and design new approaches to computing technology and find innovative uses for existing technology.	Master's degree	$126,830
	Computer and Information Systems Managers	Computer and information systems managers plan, coordinate, and direct computer-related activities in an organization.	Bachelor's degree	$151,150
	Computer Network Architects	Computer network architects design and build data communication networks, including local area networks (LANs), wide area networks (WANs), and Intranets.	Bachelor's degree	$116,780
	Computer Programmers	Computer programmers write and test code that allows computer applications and software programs to function properly.	Bachelor's degree	$89,190
	Computer Support Specialists	Computer support specialists provide help and advice to computer users and organizations.	See How to Become One	$55,510
	Computer Systems Analysts	Computer systems analysts study an organization's current computer systems and find a solution that is more efficient and effective.	Bachelor's degree	$93,730
	Database Administrators	Database administrators (DBAs) use specialized software to store and organize data.	Bachelor's degree	$98,860
	Network and Computer Systems Administrators	Network and computer systems administrators are responsible for the day-to-day operation of computer networks.	Bachelor's degree	$84,810
	Software Developers	Software developers create the applications or systems that run on a computer or another device.	Bachelor's degree	$110,140
	Web Developers and Digital Designers	Web developers create and maintain websites. Digital designers develop, create, and test website or interface layout, functions, and navigation for usability.	Associate's degree	$77,200

<- State & Area Data
More Info ->

More Info

Contacts for More Information

About this section

For more information about computer careers, visit

Association for Computing Machinery

Computing Research Association

IEEE Computer Society

For information about opportunities for women pursuing information technology careers, visit:

National Center for Women & Information Technology

O*NET

Information Security Analysts

<- Similar Occupations

SUGGESTED CITATION:

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Information Security Analysts, at https://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm (visited April 14, 2021).

Last Modified Date: Friday, April 9, 2021

O*NET OnLine

Summary Report for:
15-1212.00 - Information Security Analysts

Updated 2021

Bright Outlook

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

Sample of reported job titles: Information Security Officer, Information Security Specialist, Information Systems Security Analyst, Information Systems Security Officer (ISSO), Information Technology Security Analyst (IT Security Analyst), Information Technology Specialist, Network Security Analyst, Security Analyst, Systems Analyst

View report: Summary | Details | Custom | Easy Read | Veterans | Español

Tasks | Technology Skills | Tools Used | Knowledge | Skills | Abilities | Work Activities | Detailed Work Activities | Work Context | Job Zone | Education | Credentials | Interests | Work Styles | Work Values | Related Occupations | Wages & Employment | Job Openings | Additional Information

Tasks

5 of 12 displayed

- Develop plans to safeguard computer files against accidental or unauthorized modification, destruction, or disclosure and to meet emergency data processing needs.
- Monitor current reports of computer viruses to determine when to update virus protection systems.
- Encrypt data transmissions and erect firewalls to conceal confidential information as it is being transmitted and to keep out tainted digital transfers.
- Perform risk assessments and execute tests of data processing system to ensure functioning of data processing activities and security measures.
- Modify computer security files to incorporate new software, correct errors, or change individual access status.

back to top

Technology Skills

5 of 55 displayed **Show 5 tools used**

- **Data base user interface and query software** — Amazon Elastic Compute Cloud EC2 🔥 ; Amazon Redshift 🔥 ; Blackboard software; Oracle JDBC 🔥
- **Development environment software** — Apache Ant 🔥 ; Common business oriented language COBOL 🔥 ; Go 🔥 ; Microsoft PowerShell 🔥
- **Network monitoring software** — Nagios 🔥 ; Network intrusion prevention systems NIPS; Symantec Blue Coat Data Loss Prevention; Wireshark 🔥
- **Transaction security and virus protection software** — HP WebInspect; Ping Identity; Portswigger BurP Suite; Symantec 🔥
- **Web platform development software** — Google AngularJS 🔥 ; Microsoft ASP.NET 🔥 ; Node.js 🔥 ; Spring Framework 🔥

🔥 Hot Technology — a technology requirement frequently included in employer job postings.

back to top

Knowledge

5 of 8 displayed

- **Computers and Electronics** — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- **English Language** — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- **Administration and Management** — Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
- **Engineering and Technology** — Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- **Telecommunications** — Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.

back to top

Skills

5 of 15 displayed

- **Reading Comprehension** — Understanding written sentences and paragraphs in work related documents.
- **Critical Thinking** — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- **Active Listening** — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

- **Complex Problem Solving** — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- **Speaking** — Talking to others to convey information effectively.

back to top

Abilities

5 of 17 displayed

- **Deductive Reasoning** — The ability to apply general rules to specific problems to produce answers that make sense.
- **Inductive Reasoning** — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- **Oral Comprehension** — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- **Problem Sensitivity** — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- **Written Comprehension** — The ability to read and understand information and ideas presented in writing.

back to top

Work Activities

5 of 21 displayed

- **Interacting With Computers** — Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
- **Getting Information** — Observing, receiving, and otherwise obtaining information from all relevant sources.
- **Identifying Objects, Actions, and Events** — Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- **Evaluating Information to Determine Compliance with Standards** — Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
- **Analyzing Data or Information** — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.

back to top

Detailed Work Activities

5 of 10 displayed

- Develop computer or information security policies or procedures.
- Update knowledge about emerging industry or technology trends.
- Implement security measures for computer or information systems.
- Test computer system operations to ensure proper functioning.
- Collaborate with others to resolve information technology issues.

back to top

Work Context

5 of 22 displayed

- **Electronic Mail** — 98% responded “Every day.”
- **Indoors, Environmentally Controlled** — 89% responded “Every day.”
- **Face-to-Face Discussions** — 63% responded “Every day.”
- **Telephone** — 65% responded “Every day.”
- **Contact With Others** — 46% responded “Constant contact with others.”

back to top

Job Zone

Title	Job Zone Four: Considerable Preparation Needed
Education	Most of these occupations require a four-year bachelor's degree, but some do not.
Related Experience	A considerable amount of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.
Job Training	Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.
Job Zone Examples	Many of these occupations involve coordinating, supervising, managing, or training others. Examples include real estate brokers, sales managers, database administrators, graphic designers, chemists, art directors, and cost estimators.
SVP Range	(7.0 to < 8.0)

back to top

Education

Percentage of Respondents	Education Level Required
53	Bachelor's degree
23	Post-baccalaureate certificate
13	Associate's degree

back to top

Credentials

Find Training | Find Certifications | APPRENTICESHIP.GOV

back to top

Interests

All 3 displayed

Interest code: **CIR** Want to discover your interests? Take the O*NET Interest Profiler at My Next Move.

- **Conventional** — Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.
- **Investigative** — Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.
- **Realistic** — Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.

back to top

Work Styles

5 of 16 displayed

- **Attention to Detail** — Job requires being careful about detail and thorough in completing work tasks.
- **Dependability** — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- **Integrity** — Job requires being honest and ethical.
- **Analytical Thinking** — Job requires analyzing information and using logic to address work-related issues and problems.
- **Cooperation** — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.

back to top

Work Values

All 3 displayed

- **Working Conditions** — Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.
- **Independence** — Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.
- **Support** — Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.

back to top

Related Occupations

5 of 9 displayed

13-1081.02	Logistics Analysts
15-1211.00	Computer Systems Analysts Bright Outlook
15-1241.00	Computer Network Architects
15-1253.00	Software Quality Assurance Analysts and Testers
15-1299.08	Computer Systems Engineers/Architects

back to top

Wages & Employment Trends

Median wages (2020) $49.80 hourly, $103,590 annual

State wages Louisiana Go

Local wages	ZIP Code: 70806 Go
Employment (2019)	131,000 employees
Projected growth (2019-2029)	■■■■ Much faster than average (8% or higher)
Projected job openings (2019-2029)	13,900
State trends	Louisiana Go
Top industries (2019)	Professional, Scientific, and Technical Services Finance and Insurance

Source: Bureau of Labor Statistics 2020 wage data and 2019-2029 employment projections. "Projected growth" represents the estimated change in total employment over the projections period (2019-2029). "Projected job openings" represent openings due to growth and replacement.

back to top

Job Openings on the Web

Find Jobs

back to top

Sources of Additional Information

10 of 11 displayed

Disclaimer: Sources are listed to provide additional information on related jobs, specialties, and/or industries. Links to non-DOL Internet sites are provided for your convenience and do not constitute an endorsement.

- (ISC)2
- CompTIA
- CompTIA Association of IT Professionals
- Cyber Degrees EDU
- High Technology Crime Investigation Association
- Information Systems Security Association
- InfraGard
- ISACA
- National Initiative for Cybersecurity Education
- Occupational Outlook Handbook: Information security analysts

back to top

O*NET OnLine

Local Wages for:

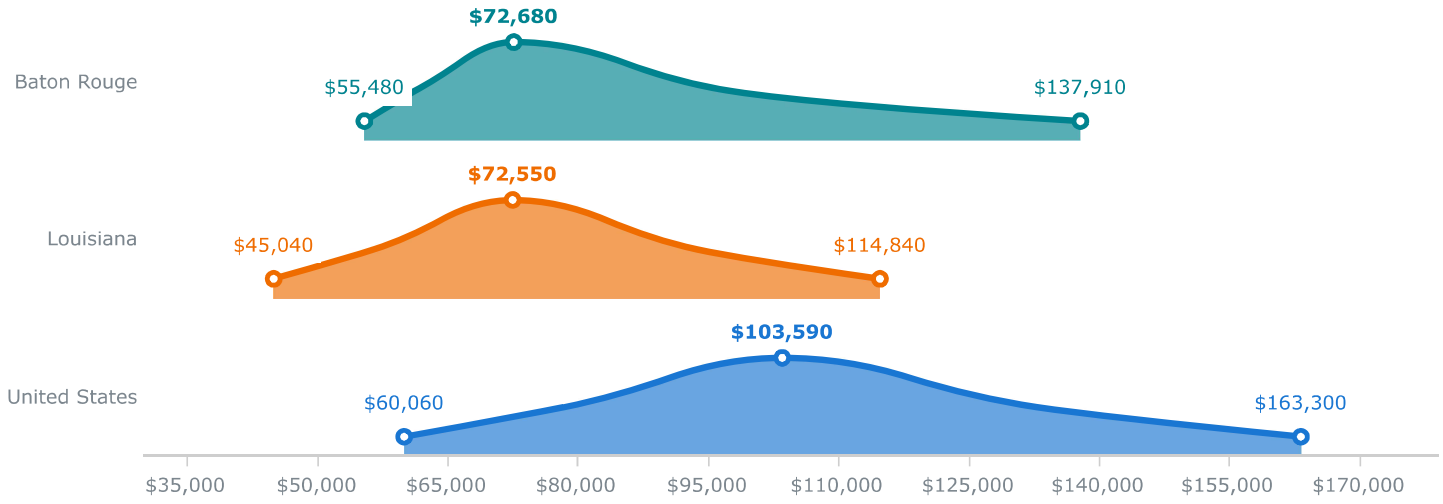
15-1212.00 - Information Security Analysts

Bright Outlook

View wages for state: Louisiana Go

View wages near ZIP Code: 70806 Go

View wages: **Annual** Hourly



In Baton Rouge, LA:

- Workers on average earn **$72,680.**
- 10% of workers earn **$55,480 or less.**
- 10% of workers earn **$137,910 or more**.

In Louisiana:

- Workers on average earn **$72,550.**
- 10% of workers earn **$45,040 or less.**
- 10% of workers earn **$114,840 or more**.

In the United States:

- Workers on average earn **$103,590.**
- 10% of workers earn **$60,060 or less.**
- 10% of workers earn **$163,300 or more.**

Source: Bureau of Labor Statistics 2020 wage data.

Full Details

Save Table (XLSX/CSV)

Location	Annual Low (10%)	Annual Q_L (25%)	Annual Median (50%)	Annual Q_U (75%)	Annual High (90%)
United States	$60,060	$78,440	$103,590	$132,890	$163,300
Louisiana	$45,040	$56,630	$72,550	$93,770	$114,840
Baton Rouge, LA	$55,480	$61,200	$72,680	$97,910	$137,910
Lafayette, LA	$35,540	$40,650	$55,630	$68,250	$84,850
New Orleans-Metairie, LA	$43,560	$53,930	$71,240	$90,960	$118,840

O*NET OnLine

Summary Report for:
15-1299.04 - Penetration Testers

Updated 2020

Bright Outlook

Evaluate network system security by conducting simulated internal and external cyberattacks using adversary tools and techniques. Attempt to breach and exploit critical systems and gain access to sensitive information to assess system security.

This title represents an occupation for which data collection is currently underway.

View report: Summary | Details | Custom | Easy Read | Veterans | Español

Tasks | Detailed Work Activities | Credentials | Wages & Employment | Job Openings

Tasks

5 of 22 displayed

- Assess the physical security of servers, systems, or network devices to identify vulnerability to temperature, vandalism, or natural disasters.
- Collect stakeholder data to evaluate risk and to develop mitigation strategies.
- Conduct network and security system audits using established criteria.
- Configure information systems to incorporate principles of least functionality and least access.
- Design security solutions to address known device vulnerabilities.

back to top

Detailed Work Activities

5 of 18 displayed

- Develop testing routines or procedures.
- Analyze security of systems, network, or data.
- Prepare scientific or technical reports or presentations.
- Stay informed about current developments in field of specialization.
- Analyze risks to minimize losses or damages.

back to top

Credentials

Find Training | Find Certifications | APPRENTICESHIP.GOV

back to top

Wages & Employment Trends

Median wage data for **Computer Occupations, All Other**.
Employment data for **Computer Occupations, All Other**.
Industry data for **Computer Occupations, All Other**.

Median wages (2020)	$44.65 hourly, $92,870 annual
State wages	Louisiana Go
Local wages	ZIP Code: 70806 Go
Employment (2019)	431,100 employees
Projected growth (2019-2029)	Faster than average (5% to 7%)
Projected job openings (2019-2029)	32,300
State trends	Louisiana Go
Top industries (2019)	Professional, Scientific, and Technical Services Government

Source: Bureau of Labor Statistics 2020 wage data and 2019-2029 employment projections. "Projected growth" represents the estimated change in total employment over the projections period (2019-2029). "Projected job openings" represent openings due to growth and replacement.

back to top

Job Openings on the Web

O*NET OnLine

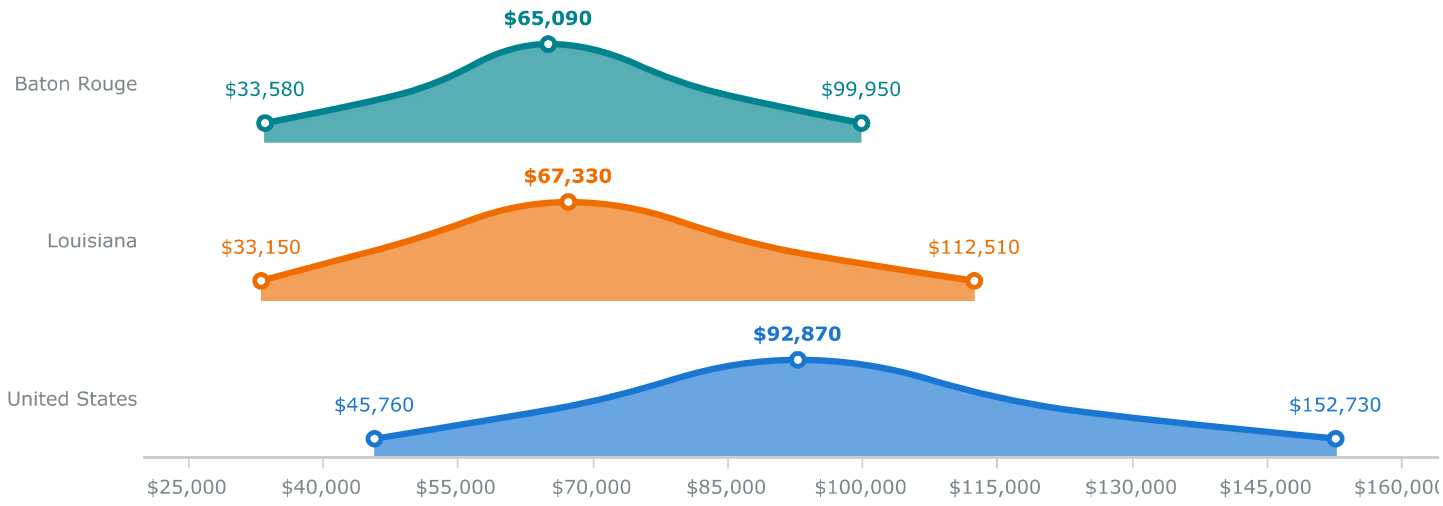
Local Wages for:

15-1299.04 - Penetration Testers Bright Outlook

View wages for state: Louisiana Go

View wages near ZIP Code: 70806 Go

View wages: **Annual** Hourly



In Baton Rouge, LA:

Wage data for **Computer Occupations, All Other**.

- Workers on average earn **$65,090.**
- 10% of workers earn **$33,580 or less.**
- 10% of workers earn **$99,950 or more**.

In Louisiana:

Wage data for **Computer Occupations, All Other**.

- Workers on average earn **$67,330.**
- 10% of workers earn **$33,150 or less.**
- 10% of workers earn **$112,510 or more**.

In the United States:

Wage data for **Computer Occupations, All Other**.

- Workers on average earn **$92,870.**
- 10% of workers earn **$45,760 or less.**
- 10% of workers earn **$152,730 or more.**

Source: Bureau of Labor Statistics 2020 wage data.

Full Details Save Table (XLSX/CSV)

Location	Annual Low (10%)	Annual Q_L (25%)	Annual Median (50%)	Annual Q_U (75%)	Annual High (90%)
United States	$45,760	$65,630	$92,870	$122,360	$152,730
Louisiana	$33,150	$45,480	$67,330	$92,070	$112,510
Baton Rouge, LA	$33,580	$49,010	$65,090	$84,220	$99,950
Alexandria, LA	$50,420	$65,140	$78,880	$92,640	$105,100
Central Louisiana nonmetropolitan area	$30,620	$43,940	$61,570	$82,510	$99,330
Hammond, LA	$37,380	$45,440	$69,500	$86,210	$123,990
Houma-Thibodaux, LA	$34,640	$46,660	$66,910	$87,190	$123,660

Lafayette, LA	$22,580	$32,050	$41,360	$71,950	$99,740
Lake Charles, LA	$33,740	$38,100	$54,430	$73,160	$93,880
Monroe, LA	$30,830	$42,890	$48,770	$64,260	$79,220
New Orleans-Metairie, LA	$37,380	$50,800	$77,380	$100,360	$118,620
Northeast Louisiana nonmetropolitan area	$34,250	$44,470	$61,700	$93,040	$128,870
Shreveport-Bossier City, LA	$32,670	$36,090	$52,060	$84,390	$101,220
Southwest Louisiana nonmetropolitan area	$31,690	$46,810	$58,450	$70,540	$95,870

Comparison of current and proposed, revised program of study for the **Retail Management CTS**:

Required Courses (all are 3 credit hours)		Current program of study	Proposed, revised program of study (Effective Fall 2022)
ENGL 1013	English Composition	X	
BUSN 1003	Introduction to Business	X	X
CSCI 2203	Microcomputer Applications in Business	X	
ACCT 2313	Financial Accounting I	X	
BUSN 2003*	Principles of Marketing	X	X
BUSN 2403	Business Communication	X	
BUSN 1503	Professional Selling	X	X
MANG 2213	Human Resource Management	X	X
MANG 2283	Organizational Behavior	X	X
MANG 2273	Retail Management	X	X
	Total Program Credit Hours:	30	18

Comparison of current and proposed, revised program of study for the **Business Administration CAS**:

Current Program of Study (all courses are 3 credit hours) requirements only)	**Proposed, Revised Program of Study (all courses are 3 credit hours), Effective Fall 2022**
General Education: 9 credit hours	**General Education: 9 credit hours**
ENGL 1013, English Composition I	ENGL 1013, English Composition I
General Education Mathematics/Analytical Reasoning	General Education Mathematics/Analytical Reasoning
General Education, Social Science: ECON 2113, Economic Principles, or ECON 2213, Principles of Macroeconomics, or ECON 2223, Principles of Microeconomics	General Education, Social Science: ECON 2113, Economic Principles, or ECON 2213, Principles of Macroeconomics, or ECON 2223, Principles of Microeconomics
Program-specific courses: 21 credit hours	
BUSN 1003, Introduction to Business	BUSN 1003, Introduction to Business
CSCI 2203, Microcomputer Applications in Business	CSCI 2203, Microcomputer Applications in Business
SPCH 2013, Techniques of Speech, or SPCH 2213, Interpersonal Communication	
ACCT 2313, Financial Accounting I, or ACCT 2113, Financial Accounting III	ACCT 2313, Financial Accounting I, or ACCT 2113, Financial Accounting III
Approved Business Electives: Select 3 courses from the following list (9):	
Any Accounting (ACCT) course (3)	
Any Business (BUSN) course (3)	BUSN 2103, Business Law
Any Finance (FINA) course (3)	FINA 1503, Introduction to Financial Management
Any Management (MANG) course	MANG 1503, Negotiations in Business MANG 2283, Organizational Behavior
Any Economics (ECON) course (3)	
CIST 1503, Spreadsheets I (3)	
MATH 2303, Basic Statistics I (3)	
MATH 2313, Basic Statistics II (3)	
SPCH 2313, Communication for Business Professionals (3)	
ENGL 2013, Workforce Writing and Vocabulary Development (3)	
Total Program Hours: 30	**Total Program Hours: 30**

Comparison of programs of study for the Business Administration AAS and exit points:

Customer Service and Sales CTC, Retail Management CTS, and Business Administration CAS

Course (all are 3 credit hours)	Customer Service and Sales CTC 52.0411, 3 Stars (new program)	Retail Management CTS 52.0212, (modification)	Business Administration CAS (title change)	Business Administration AAS (reference - no changes)
ENGL 1013, English Composition I			X	X
MATH 1103 or MATH 1213			X	X
GenEd Natural Science				X
GenEd Humanities – HIST 2103 or HIST 2023				X
GenEd Social Science: ECON 2213 or ECON 2223 or ECON 2113			X	X
GenEd total:			**9**	**15**
BUSN 1003, Introduction to Business	X	X	X	X
CSCI 2203, Microcomputer Applications in Business	X		X	X
FINA 1503, Intro to Financial Management			X	X
ACCT 2113, Financial Accounting III			X	X
ACCT 2313, Financial Accounting I				
MANG 2213, Human Resource Management		X		X
MANG 2413, Introduction to Entrepreneurship				X
BUSN 2403, Business Communication	X			X
BUSN 2003, Principles of Marketing		X		X
BUSN 2103, Business Law			X	X
BUSN 1503, Professional Selling	X	X		X
ACCT 2213, Intro to Managerial Accounting				X
MANG 1503, Negotiations in Business			X	X
ACCT 2413, Computer-Based Accounting				X
MANG 2283, Organizational Behavior		X	X	X
MANG 2273, Retail Management		X		X
Total credit hours for award-specific courses:	**12**	**18**	**21**	**45**
Total Credit Hours:	**12**	**18**	**30**	**60**

Request to Terminate an Academic Degree Program or Administrative/Research Unit

1. Institution: Baton Rouge Community College (BRCC)

2. Type of Termination (check one)

__X__ A. Academic Program (If A, complete *all* remaining sections)

_____ B. Administrative Unit (If B, skip sections 3, 4, 5, and 6)

_____ C. Research Unit – Center or Institute (If C, skip sections 3, 4, 5, and 6)

3. Degree Designation. (BA, MS, PhD, etc.) Certificate of Technical Studies (CTS)

4. Title and CIP Code. Landscape Technician (CTS); CIP 01.0601

5. Semester/year at which no new enrollments will be accepted. Fall 2019

6. Teach-out plan, including semester/year at which reporting of degrees shall cease.
Currently, the courses supporting this program (and the Horticulture Technician Technical Diploma (TD) in which it is embedded) have been offered exclusively at correctional facilities (Louisiana Correctional Institute for Women, LCIW, and the Louisiana State Penitentiary). Due to the need to modify the program of study, new enrollment was temporarily suspended in Fall 2019 so that the existing program could be completed. It was not anticipated, when the process began, that deletion of this award would be necessary (see below). Spring 2021 will be the final semester and year when this CTS will be reported.

7. Reason for request. (Ex: low demand, job opportunities, changing focus, program duplication, loss of funding sources, etc.)

Explanation: The modifications to the courses supporting both this CTS and the Horticulture Technician TD in which it is embedded have resulted in (a) a course sequence that eliminates all Landscaping courses from the CTS, and (b) a 70% overlap in courses and credit hours between the CTS and the TD. Thus, BRCC requests authority to terminate the existing Landscape Technician CTS. BRCC plans to replace the program the Ornamental and Turf Pest Technician CTS submitted for approval by the Louisiana Community and Technical College System Board of Supervisors.

** Include statements which address the impact of the termination upon remaining programs/units (if applicable). For example, a request to terminate the Department of Chemistry should also include information about the academic programs in that Department – will they be maintained or terminated as well? If maintained, where will they reside? Will the department maintaining these programs be re-named? How will this further affect the administrative structure at the institution? Append documentation to this form.*

8. If collaboration with other institutions is involved, identify partners. Each participating institution must submit a separate request form. N/A

9. Program/Unit Contact (name, title, email address, telephone number)

Dr. Brandy M. Tyson-Polk, Dean of Technical Education
Email: tysonb@mybrcc.edu
Phone: 225-216-8087

Campus Head: [signature] **Date:** 5/6/21

Management Board: **Date:**

For Academic Program Termination: note the SACS/COC requirements (Substantive Change) for notification, teach-out plan/agreement, and request for SACSCOC approval following BOR approval. Send BOR/AcAf a copy of the SACSCOC response to finalize the action.

Request to Terminate an Academic Degree Program or Administrative/Research Unit

1. Institution Baton Rouge Community College

2. Type of Termination (check one)

__X__ A. Academic Program (If A, complete *all* remaining sections)

_____ B. Administrative Unit (If B, skip sections 3, 4, 5, and 6)

_____ C. Research Unit – Center or Institute (If C, skip sections 3, 4, 5, and 6)

3. Degree Designation. (BA, MS, PhD, etc.) CTS and TD

4. Title and CIP Code. Graphics Prepress Technician (CTS), CIP code 10.03030, and Graphics (TD), CIP code 10.0303

5. Semester/year at which no new enrollments will be accepted. Fall 2021

6. Teach-out plan, including semester/year at which reporting of degrees shall cease.
The teach out plan was submitted to and approved by the Southern Association of Colleges and Schools Commission on Colleges in 2016. All students in the teach out have completed the programs and the only faculty member teaching the courses supporting the program has retired from BRCC.

7. Reason for request. (Ex: low demand, job opportunities, changing focus, program duplication, loss of funding sources, etc.)

Explanation: At the time of the merger between BRCC and the former Capital Area Technical College, enrollment in the Graphics TD was waning. Oversight of the programs was transferred from Technical Education to Science, Technology, Engineering, and Mathematics, and several revisions to the program were developed and discussed. However, none of the proposed modifications could address the need for financial aid eligibility and the cost of upgrading all of the equipment needed for updating the program, so the College decided to close enrollment and teach out the programs. The approval of the teach out plan by SACSCOC is attached.

** Include statements which address the impact of the termination upon remaining programs/units (if applicable). For example, a request to terminate the Department of Chemistry should also include information about the academic programs in that Department – will they be maintained or terminated as well? If maintained, where will they reside? Will the department maintaining these programs be re-named? How will this further affect the administrative structure at the institution? Append documentation to this form.*

8. If collaboration with other institutions is involved, identify partners. Each participating institution must submit a separate request form. N/A

9. Program/Unit Contact (name, title, email address, telephone number)
Raven Dorá, Department Chair for Computer Science, Engineering, and Mathematics; dorar@mybrcc.edu; 225-216-8105

Campus Head: [signature] **Date:** 5/6/21

Management Board: **Date:**

For Academic Program Termination: note the SACS/COC requirements (Substantive Change) for notification, teach-out plan/agreement, and request for SACSCOC approval following BOR approval. Send BOR/AcAf a copy of the SACSCOC response to finalize the action.

SACS COC™

SOUTHERN ASSOCIATION OF COLLEGES AND SCHOOLS
COMMISSION ON COLLEGES

March 6, 2017

Dr. Larissa Littleton-Steib
Chancellor
Baton Rouge Community College
201 Community College Drive
Baton Rouge, LA 70806

Dear Dr. Littleton-Steib:

We received in our office a letter dated November 28, 2016, from Dr. Phillip L. Smith, Jr. notifying the Commission of the closure of the Graphics Technical Diploma and the Graphics Prepress Technician Certificate of Technical Studies programs, effective fall 2016. The programs are being closed due to low enrollment, completion, and lack of placement. Enrollment of new students in the program was discontinued, effective fall 2016. Thirteen students are currently enrolled in the program. These students were notified in a meeting and in writing by the department chair. Courses will continue to be offered through fall 2017. Students will have until the end of fall 2017, to complete their program of study. Students will not incur any additional expenses due to the closures. The faculty and staff were notified in writing by the department chair. The College will make every effort to reassign the full time faculty member in the program to other visual communication courses. No staff were adversely affected by the closures.

We approve the closure of the Graphics Technical Diploma and the Graphics Prepress Technician Certificate of Technical Studies programs.

Best regards,

Kevin W. Sightler, Ph.D.
Director of Substantive Change

KWS/JWS:efk

cc: Dr. Margaret McMichael, Articulations and Transfer Director
Dr. Nuria M. Cuevas

1866 Southern Lane • Decatur, Georgia 30033-4097 • Telephone 404/679-4500 • Fax 404/679-4558
www.sacscoc.org

Request to Terminate an Academic Degree Program or Administrative/Research Unit

1. Institution Baton Rouge Community College

2. Type of Termination (check one)

__X__ A. Academic Program (If A, complete *all* remaining sections)

_____ B. Administrative Unit (If B, skip sections 3, 4, 5, and 6)

_____ C. Research Unit – Center or Institute (If C, skip sections 3, 4, 5, and 6)

3. Degree Designation. (BA, MS, PhD, etc.) CTS

4. Title and CIP Code. Highway Engineering Technology, CIP code 15.0201

5. Semester/year at which no new enrollments will be accepted. Fall 2021

6. Teach-out plan, including semester/year at which reporting of degrees shall cease.
A teach out plan is not necessary, as there are no students enrolled in the program. Reporting will cease upon receipt of this request.

7. Reason for request. (Ex: low demand, job opportunities, changing focus, program duplication, loss of funding sources, etc.)

Explanation: The program has been dormant for a number of years; hiring adjunct faculty has proved to be difficult since the original arrangement with the Louisiana Department of Transportation and Development (DOTD instructors at no cost to BRCC) expired. [Note: Staff at the Louisiana Community and Technical College System are discussing the development of a non-credit program in collaboration with the Louisiana Department of Transportation and Development and the Louisiana Transportation and Research Center.]

** Include statements which address the impact of the termination upon remaining programs/units (if applicable). For example, a request to terminate the Department of Chemistry should also include information about the academic programs in that Department – will they be maintained or terminated as well? If maintained, where will they reside? Will the department maintaining these programs be re-named? How will this further affect the administrative structure at the institution? Append documentation to this form.*

8. If collaboration with other institutions is involved, identify partners. Each participating institution must submit a separate request form. N/A

9. Program/Unit Contact (name, title, email address, telephone number)
Raven Dorá, Department Chair for Computer Science, Engineering, and Mathematics; dorar@mybrcc.edu; 225-216-8105

Campus Head: [signature] **Date:** 5/6/21

Management Board: **Date:**

For Academic Program Termination: note the SACS/COC requirements (Substantive Change) for notification, teach-out plan/agreement, and request for SACSCOC approval following BOR approval. Send BOR/AcAf a copy of the SACSCOC response to finalize the action.

Request to Terminate an Academic Degree Program or Administrative/Research Unit

1. Institution
Baton Rouge Community College

2. Type of Termination (check one)

__X___ A. Academic Program (If A, complete *all* remaining sections)

_____ B. Administrative Unit (If B, skip sections 3, 4, 5, and 6)

_____ C. Research Unit – Center or Institute (If C, skip sections 3, 4, 5, and 6)

3. Degree Designation. (BA, MS, PhD, etc.)
Certificate of Technical Studies (CTS)

4. Title and CIP Code.
Customer Service, 52.0411

5. Semester/year at which no new enrollments will be accepted.
Spring, 2022

6. Teach-out plan, including semester/year at which reporting of degrees shall cease.
One of the courses currently required for the completion of the CTS is to be deleted at the end of the Spring 2022 semester; all other courses are and will continue to be offered. Students will be notified via email that they have until the Fall semester in 2022 to complete the program and receive the award. Fall 2022 is the final semester/year that reporting for this program will be awarded and thus reported.

7. Reason for request. (Ex: low demand, job opportunities, changing focus, program duplication, loss of funding sources, etc.)

Explanation:
This CTS will be replaced by a more relevant Career and Technical Certificate (CTC) in Customer Service and Sales. The CTC is more focused and provides the opportunity for an Industry Based Certification from the National Retail Foundation, which is beneficial to our students as they progress in or enter the workforce. The replacement of the current CTS with the proposed CTC is supported by BRCC's Business Division Advisory Board.

** Include statements which address the impact of the termination upon remaining programs/units (if applicable). For example, a request to terminate the Department of Chemistry should also include information about the academic programs in that Department – will they be maintained or terminated as well? If maintained, where will they reside? Will the department maintaining these programs be re-named? How will this further affect the administrative structure at the institution? Append documentation to this form.*

8. If collaboration with other institutions is involved, identify partners. Each participating institution must submit a separate request form.

N/A

9. Program/Unit Contact (name, title, email address, telephone number)

Pearce Cinman, Chair, Chair of Business Department. cinmanp@mybrcc.edu, 225-216-8526

Campus Head: [signature] **Date:** 5/4/21

Management Board: **Date:**

For Academic Program Termination: note the SACS/COC requirements (Substantive Change) for notification, teach-out plan/agreement, and request for SACSCOC approval following BOR approval. Send BOR/AcAf a copy of the SACSCOC response to finalize the action.

DELIVERY OF DEGREE PROGRAMS THORUGH DISTANCE EDUCATION TECHNOLOGY

REQUEST FOR AUTHORITY TO OFFER AN EXISTING ACADEMIC PROGRAM THROUGH DISTANCE LEARNING TECHNOLOGIES

(Academic Affairs Policy 2.12, revised January 2014)

1. **University or College**
   Baton Rouge Community College

2. **Name, Phone and Email Address of contact person for questions regarding this request**
   Sarah Barlow, Vice Chancellor for Academic and Student Affairs; 225-216-8361; barlows@mybrcc.edu

3. **Name of Degree Program and CIP Classification**
   Ornamental and Turf Pest Control Technician, Certificate of Technical Studies (CTS), CIP Classification 01.0601

4. **List the initial date of implementation**
   January 2022

5. **Briefly describe the program. If there are any differences** (e.g., curriculum, admission, graduation requirements, etc.) **between the program to be delivered via distance learning and the program offered through traditional delivery modes, explain and provide a rational for the differences.**
   Ornamental and Turf Pest Control Technicians serve as Horticultural Attendants alongside Horticulture Technicians to apply chemicals to weeds; control pests by scheduling, preparing, and applying pesticides; fertilize and amend soils; apply mulch to beds; and several other activities that monitor pest activity. The Ornamental and Turf Pest Control Technician CTS prepares students for the Louisiana Department of Agriculture and Forestry Ornamental and Turf Pest Control licensure exam. The curriculum, assessment of student outcomes for the program, and graduation requirements are the same for on-ground (face-to-face or standard) and distance education delivery modes.

6. **Briefly describe the extent to which the program will be offered via distance learning.**
   BRCC requests authorization to offer 50-99%% of the 21 credit hours for the Ornamental and Turf Pest Control Technician CTS via eLearning formats (primarily hybrid courses).

7. **Describe distance learning technologies which will be used to offer the proposed program.**
   Distance delivery of lecture content will be asynchronously. Hybrid delivery is planned for lab content; some plant identification may be performed via distance formats, but plant manipulation must be performed face-to-face with the instructor. All examinations will be administered face-to-face with a proctor.

8. **Indicate where (city/town and parish) the proposed program will be offered.**
   Lecture content will originate and be delivered from the cities of Baker (in East Baton Rouge Parish), BRCC's LCIW location, Baton Rouge (in East Baton Rouge Parish), BRCC's Main Campus location; and Angola (in West Feliciana Parish), BRCC's Louisiana State Penitentiary location. Lab content will be provided in Baker, in East Baton Rouge Parish, Baton Rouge, in East Baton Rouge Paris, and Angola, West Feliciana Parish.

9. **Describe processes in place to ensure that students have structured access to faculty**.
   Students enrolled in lecture-only courses will have access to their instructor via the site's Education Program Coordinator. Students' questions will be scanned by the site's Education Program Coordinator to the instructor; the instructor's answer will be relayed back to the student by the Education Program Coordinator. Hybrid labs will feature descriptive content provided by the instructor via the Education Program Coordinator.

Vice Chancellor for Academic and Student Affairs	Date 5/6/21
Campus Head (or Authorized Signature)	Date 5/6/21
System Head (or Authorized Signature)	Date

DELIVERY OF DEGREE PROGRAMS THORUGH DISTANCE EDUCATION TECHNOLOGY

REQUEST FOR AUTHORITY TO OFFER AN EXISTING ACADEMIC PROGRAM THROUGH DISTANCE LEARNING TECHNOLOGIES

(Academic Affairs Policy 2.12, revised January 2014)

1. **University or College**
   Baton Rouge Community College

2. **Name, Phone and Email Address of contact person for questions regarding this request**
   Sarah Barlow, Vice Chancellor for Academic and Student Affairs; 225-216-8361; barlows@mybrcc.edu

3. **Name of Degree Program and CIP Classification**
   Customer Service and Sales, Career and Technical Certificate. CIP Classification: 52.0411

4. **List the initial date of implementation**
   January 2022

5. **Briefly describe the program. If there are any differences** (e.g., curriculum, admission, graduation requirements, etc.) **between the program to be delivered via distance learning and the program offered through traditional delivery modes, explain and provide a rationale for the differences.**
   The Customer Service and Sales Career and Technical Certificate includes coursework in business communications, selling techniques, and business computer applications for development of a broad range of skills in key areas that will enhance students' ability to deliver excellent customer service in any field or industry. Students will have the opportunity to receive a professional credential upon passing a certification exam. The curriculum, assessment of student outcomes for the program, and graduation requirements are the same for on-ground (face-to-face or standard) and distance education delivery modes. This program replaces a current CTS that has been proposed for deletion that is currently offered 100% online.

6. **Briefly describe the extent to which the program will be offered via distance learning.**
   BRCC requests authorization to offer 100% of the 12 credit hours for the Customer Service and Sales Career and Technical Certificate via eLearning formats (fully online courses).

7. **Describe distance learning technologies which will be used to offer the proposed program.**
   Faculty will utilize the College's learning management system (currently Canvas) to facilitate online work with students (for example, for presentation of content, submission of work, and completion of assessments). Synchronous delivery will utilize cloud-based meeting platforms such as Zoom or Teams meetings. BRCC requires that high stakes exams be taken in a proctored environment. The proctoring service is provided by the College (currently utilizing Proctorio software).

8. **Indicate where (city/town and parish) the proposed program will be offered.**
   Courses will originate from the city of Baton Rouge (in East Baton Rouge Parish). Whereas the majority of students are expected to be residents of the Baton Rouge area, the courses may be taken by students from around the state. BRCC's Virtual Student Center eliminates the need for most students to visit the Mid City location; however, for local students, the College is expected to be open for seeing faculty or visiting any of the College's Student Services offices.

9. **Describe processes in place to ensure that students have structured access to faculty**.
   BRCC students enrolled in eLearning courses have access to faculty via email and Canvas; Zoom and Teams may be used as well. In addition, students may schedule appointments during faculty office hours to meet in person, via telephone, or virtually. BRCC eLearning faculty are required to check email seven (7) days per week and respond within 36 hours.

Vice Chancellor for Academic and Student Affairs	Date 5/6/21
Campus Head (or Authorized Signature)	Date 5/6/21
System Head (or Authorized Signature)	Date

Signature: Adrienne Fontenot

Email: adriennefontenot@lctcs.edu

Signature: Wendi Palermo

Email: wendipalermo@lctcs.edu

Signature: René Cintrón
René Cintrón (Jun 7, 2021 13:33 CDT)

Email: renecintron@lctcs.edu

J.1.BRCC memo

Final Audit Report 2021-06-07

Created:	2021-06-07
By:	Sara Kleinpeter (sarakleinpeter1@lctcs.edu)
Status:	Signed
Transaction ID:	CBJCHBCAABAAfPmhaxDDKAaZFZrMBV5WxgFLb_1womPH

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