Name of Institution

Greenville Technical College

Name of Program (include concentrations, options, and tracks)

Associate in Applied Science, major in Auto Body Repair

Program Designation

- ☒ Associate's Degree
- ☐ Master's Degree
- ☐ Bachelor's Degree: 4 Year
- ☐ Specialist
- ☐ Bachelor's Degree: 5 Year
- ☐ Doctoral Degree: Research/Scholarship (e.g., Ph.D. and DMA)
- ☐ Doctoral Degree: Professional Practice (e.g., Ed.D., D.N.P., J.D., Pharm.D., and M.D.)

Does the program qualify for supplemental Palmetto Fellows and LIFE Scholarship awards?

- ☐ Yes
- ☒ No

Proposed Date of Implementation
Fall 2015

CIP Code
47.0603

Delivery Site(s)
McKinney Regional Automotive Technology Center, GTC Main Campus

Delivery Mode

- ☒ Traditional/face-to-face*
  *select if less than 50% online
- ☐ Distance Education
  - ☐ 100% online
  - ☐ Blended (more than 50% online)
  - ☐ Other distance education

Program Contact Information (name, title, telephone number, and email address)
Judy Haynes, Director of Academic Compliance and Review
864-250-8591
Judy.haynes@gvltec.edu

Institutional Approvals and Dates of Approval

- GTC Local Area Commission Approval – February 19, 2014
- State Board for Technical and Comprehensive Education Approval – January 20, 2015 (pending)

Background Information

State the nature and purpose of the proposed program, including target audience and centrality to institutional mission. (1500 characters)

The purpose of the proposed Auto Body Repair program is to strengthen the automotive collision repair industry in the state by teaching students the vital roles within the industry, which include refinishing, collision repair, estimating, and automotive management techniques. The program will support the mission of Greenville Technical College (GTC) by preparing students for high-wage positions within the local industry.

The addition of advanced manufacturing materials in the automotive industry requires that students learn new processes and repair procedures. Graduates of the degree program will be equipped to repair advanced materials as their usage in vehicle design and fuel efficiency continue. Students in the degree program will also complete courses in estimating and customer service skills, which is a differential from the certificate program curriculum.

List the program objectives. (2000 characters)

The objectives of the program are to produce graduates that will be able to create a repair plan using verified repair procedures, integrate new repair processes into existing facilities, evaluate and produce efficient work processes, justify repair costs associated with returning a vehicle to pre-accident condition, and produce industry accepted repairs to late model vehicles. Graduates will be prepared for any of the positions in the collision repair industry to include refinisher, collision repair technician, structural repair technician, estimator, production manager, appraiser, supplement writer, aftermarket parts sales, and equipment sales. The aviation industry also has positions available for graduates of this program to include refinishers and metal fabricators.

Assessment of Need

Provide an assessment of the need for the program for the institution, the state, the region, and beyond, if applicable. (1500 characters)

National projections show a need for students in the collision repair industry to have an associate's degree to meet the demands of industry. The US Department of Labor shows a 13% increase nationally and the auto industry is projected as a fast growing job market. Local businesses surveyed projected steady growth of their businesses over the next five years with some planning for aggressive growth in the next three years.

Evidence of support from business and industry is demonstrated in the results of a needs assessment conducted by GTC. Seventeen employers indicated a need for 128 openings over the next three years (i.e., 111 full-time positions and 17 part-time positions). Ten employers stated that they would provide tuition assistance for their employees to enroll in the proposed associate degree program.

The local industry surveyed showed an average salary for an entry level technician at $29,676. An experienced technician in this same market can look to earn $45,000 on average with some technicians making considerably more. A part-time technician in this same market can look to earn $15,000-$20,000 annually. The state average is consistent with bordering states with technicians earning $38,000-$50,000 depending on geographic location within the state. The national average for a full-time technician is $52,997.

Employment Opportunities

Is specific employment/workforce data available to support the proposed program?

☒Yes

☐No

If yes, complete the table and the component that follows the table on page 4. If no, complete the single narrative response component on page 5 beginning with “Provide supporting evidence.”

Employment Opportunities			
Occupation	**Expected Number of Jobs**	**Employment Projection**	**Data Source**
Collision Repair Technician/Refinisher/Auto Appraiser/Estimator	53	2015	College Needs Survey Data
Collision Repair Technician/Refinisher/Auto Appraiser/Estimator	41	2016	College Needs Survey Data
Collision Repair Technician/Refinisher/Auto Appraiser/Estimator	34	2017	College Needs Survey Data

Provide additional information regarding anticipated employment opportunities for graduates. (1000 characters)

The local automotive industry is a thriving business in Greenville County and nationally. The industry is understaffed as a whole and every employer that was surveyed is planning to add at least one employee every year due to growth. The growth will sustain graduates of the program, but an even greater need is the continuation of retiring "Baby Boomers" that are leaving voids in the workforce and this will continue to happen. The needs survey only accounted for Greenville County but many students of the program originate from and return to other areas of the state.

Provide supporting evidence of anticipated employment opportunities for graduates, including a statement that clearly articulates what the program prepares graduates to do, any documented citations that suggests a correlation between this program and future employment, and other relevant information. Please cite specific resources, as appropriate. (3000 characters)

Note: Only complete this if the Employment Opportunities table and the section that follows the table on page 4 have not previously been completed.

N/A

Will the proposed program impact any existing degree programs and services at the institution (e.g., course offerings or enrollment)?

☒Yes

☐No

If yes, explain. (500 characters)

The college currently offers a diploma in Auto Body Repair. The diploma program will be discontinued upon approval of the proposed degree.

The majority of students are studying under the certificate program in Auto Body Repair, or the concentration in Auto Body Repair that is offered under the General Technology Degree. Currently, thirteen students are completing their degree through the General Technology path. Students currently enrolled in the Auto Body Repair certificate program will benefit by having the opportunity to continue their education and earn a higher credential aligned with industry standards.

List of Similar Programs in South Carolina

Program Name	Institution	Similarities	Differences
N/A - This program is the first model of its kind in the SC Technical College System.	--	--	--

Description of the Program

Projected Enrollment						
Year	Fall		Spring		Summer	
	Headcount	Credit Hours	Headcount	Credit Hours	Headcount	Credit Hours
2015	20	290	25	365	12	144
2016	39	563	39	563	17	204
2017	46	663	46	663	15	180

Besides the general institutional admission requirements, are there any separate or additional admission requirements for the proposed program?

☐Yes

☒No

If yes, explain. (1000 characters)

Are there any special articulation agreements for the proposed program?

☐Yes

☒No

If yes, identify. (1000 characters)

Curriculum

Select one of the following charts to complete: Curriculum by Year **or** Curriculum by Category

Curriculum by Year					
Course Name	**Credit Hours**	**Course Name**	**Credit Hours**	**Course Name**	**Credit Hours**
Year 1					
Fall		**Spring**		**Summer**	
ABR 104: Auto Body Fundamentals	3	ABR 102: MIG Welding	3	ABR 127: Refinishing Color Tinting and Blending	3
ABR 105: Structural Measuring and Analysis	3	ABR 115: Structural Repair Planning and Correction	3	ABR 114: Estimating Fundamentals	3
ABR 106: Non-Structural Plastic and Metal Repairs	3	ABR 116: Non-Structural Panel Replacement and Trim	3	ABR 135: Structural Sectioning and Frame Replacement	3
ABR 107: Refinishing Fundamentals	3	ABR 117: Refinishing Application Processes	3	ENG 165: Professional Communications	3
MAT 170: Algebra, Geometry, and Trigonometry	3	PSY 103: Human Relations	3		
Total Semester Hours	15	Total Semester Hours	15	Total Semester Hours	12
Year 2					
Fall		**Spring**		**Summer**	
ABR 126: Non-Structural Advanced Materials	3	ABR 132: Shop Management Concepts	2		
ABR 124: Advanced Estimating Procedures	3	ABR 136: Metal Shaping and Fabrication	3		
ABR 142: Mechanical Systems	3	ABR 137: Advanced Refinishing Processes	3		
ABR 143: Auto Body Electrical Systems	3	ABR 144: Heating, Cooling, and Air Conditioning Systems	3		
PHS 111: Conceptual Physics	3	HSS 105: Technology and Culture	3		
Total Semester Hours	15	Total Semester Hours	14	Total Semester Hours	

Total Credit Hours Required
71

Course Descriptions for New Courses

Course Name	Description
ABR 124: Advanced Estimating Procedures	This course is an in-depth review of computerized estimating systems, digital photography, and vehicle scheduling processes as they relate to automotive estimating.
ABR 126: Non-Structural Advanced Materials	This course is an exploration of non-traditional vehicle materials and the repair processes that accompany them.
ABR 136: Metal Shaping and Fabrication	This course covers metal shaping and fabrication of vehicle parts using metal forming equipment.
ABR 137: Advanced Refinishing Processes	This course covers the use of specialty finishes and custom paint applications.
ABR 142: Mechanical Systems	This course is a study of braking, steering, and suspension systems as they relate to returning a vehicle to pre-accident condition.
ABR 143: Auto Body Electrical Systems	This course is an exploration of basic circuitry and electrical problems associated with collision-damaged vehicles.
ABR 144: Heating, Cooling, and Air Conditioning Systems	This course is an introduction to engine heating and cooling systems used in modern vehicles. Other topics include the automotive air conditioning system.

Faculty

Faculty and Administrative Personnel				
Rank	**Full- or Part-time**	**Courses Taught or To be Taught, Including Term, Course Number & Title, Credit Hours**	**Academic Degrees and Coursework Relevant to Courses Taught, Including Institution and Major**	**Other Qualifications and Comments (i.e., explain role and/or changes in assignment)**
Faculty	Full-time	TBD	Associate Degree, Auto Body Repair	N/A
Faculty	Part-time	TBD	Associate Degree, Auto Body Repair	N/A

Note: Individuals should be listed with program supervisor positions listed first. Identify any new faculty with an asterisk next to their rank.

Total FTE needed to support the proposed program (i.e., the total FTE devoted just to the new program for all faculty, staff, and program administrators):

Faculty	Staff	Administration
3.5	1	3

Faculty /Administrative Personnel Changes

Provide a brief explanation of any additional institutional changes in faculty and/or administrative assignment that may result from implementing the proposed program. (1000 characters)

Existing faculty and administrative staff for the Auto Body Repair certificate program will maintain their current roles. A new faculty member will be hired in year two of the program.

Library and Learning Resources

Identify current library/learning collections, resources, and services necessary to support the proposed program and any additional library resources needed. (1000 characters)

The library has many holdings that apply directly to the program, both online and in print. The current print versions of books and magazines are listed: Delmar's ASE Test Preparation, Auto Upkeep: Basic Care, Maintenance, and Repair, Automotive Heating and Air Conditioning, Collision Repair and Refinishing: A Foundation Course for Technicians, ASE Test Prep B1-B5, Hybrid, Electric, and Fuel Cell Vehicles, Math for the Automotive Trade

Magazines include: Automobile, Automotive News, Auto Week, Car and Driver, Motor Trend, Road and Track, ABRN, Speedway Illustrated, NASCAR Illustrated. Electronics resources are available.

The college has developed a three-year acquisition plan to include the purchase of additional books, e-books, serials, and industry-related publications.

Student Support Services

Identify academic support services needed for the proposed program and any additional estimated costs associated with these services. (500 characters)

Since the college already has robust training available in auto body repair, adequate support services exist to support the proposed program. Currently, tutoring services and a counselor, who works with all of the technology programs, are available to all GTC students. The Advising Center will advise new students and current faculty will continue to advise currently enrolled students.

Physical Resources

Identify any new instructional equipment needed for the proposed program. (500 characters)

The addition of the associate degree will require some specialized welders for teaching the aluminum and composite material classes. The new welders required are synergic pulsed welders that will weld the lightweight aluminum that is being used in many of todays' vehicles. This will require technicians that are trained in this new technology.

The equipment will be paid for through the college's equipment fund, if the items cannot be secured through grants. The department has already applied for multiple grants to assist in buying the equipment. Synergic pulse welders cost between $6,500 and $10,000, depending on the functions and different options.

Will any extraordinary physical facilities be needed to support the proposed program?

☐Yes

☒No

Identify the physical facilities needed to support the program and the institution's plan for meeting the requirements, including new facilities or modifications to existing facilities. (1000 characters)

The facilities currently being utilized for the Auto Body Repair certificate is sufficient for the degree program. Renovations were completed in 2010 and allowed for future expansion of the program. The current facility and space were designed with the addition of the degree program in mind.

Financial Support

Estimated New Costs by Year						
Category	**1st**	**2nd**	**3rd**	**4th**	**5th**	**Total**
Program Administration	$0	$0	$0			$0
Faculty and Staff Salaries	$70,899	$72,317	$73,764			$216,980
Graduate Assistants	$0	$0	$0			$0
Equipment	$0	$36,800	$0			$36,800
Facilities	$0	$0	$0			$0
Supplies and Materials	$0	$0	$0			$0
Library Resources	$500	$1,000	$1,000			$2,500
Other*	$0	$0	$0			$0
Total	$71,399	$110,117	$74,764			$256,280
Sources of Financing						
Category	**1st**	**2nd**	**3rd**	**4th**	**5th**	**Total**
Tuition Funding	$54,945	$108,352	$137,186			$300,483
Program-Specific Fees	$14,500	$28,275	$33,350			$76,125
State Funding (i.e., Special State Appropriation)*	$0	$0	$0			$0
Reallocation of Existing Funds*	$10,000	$0	$0			$10,000
Federal Funding*	$0	$0	$0			$0
Other Funding*	$0	$0	$0			$0
Total	$79,445	$136,627	$170,536			$386,608
Net Total (i.e., Estimated New Costs Minus Sources of Financing)	$8,046	$26,510	$95,772			$130,328

*Provide an explanation for these costs and sources of financing in the budget justification.

Budget Justification

Provide a brief explanation for the other new costs and any special sources of financing (state funding, reallocation of existing funds, federal funding, or other funding) identified in the Financial Support table. (1000 characters)

Note: Institutions need to complete this budget justification *only* if any other new costs, state funding, reallocation of existing funds, federal funding, or other funding are included in the Financial Support table.

The college will reallocate $10,000 from current salary funds to cover operating costs during the first year.

Evaluation and Assessment

Programmatic Assessment: Provide an outline of how the proposed program will be evaluated, including any plans to track employment. Identify assessment tools or software used in the evaluation. Explain how assessment data will be used. (3000 characters)

As stated in the State Board for Technical and Comprehensive Education Procedure 3-1-301.1, the program will be evaluated annually on enrollment, number of graduates, and the percentage of graduates placed on related jobs or continuing their academic studies. The college will enter placement data into the state-level system based on findings from the National Clearinghouse, the SC Department of Employment and Workforce, and local-level strategies.

Additionally, the college will work with its local advisory board to conduct ongoing evaluation of program curriculum.

Student Learning Assessment

Expected Student Learning Outcomes	Methods of/Criteria for Assessment
The student will identify structural damage and create a repair plan for correction to the vehicle structure.	**Direct** The students will be assessed using a final clinical exam and a written exam. The assessments will be evaluated using scoring rubrics that outline each specific measure. Student tests, lab reports, performance evaluations, and presentations will be used to check for comprehension. **Indirect** I-CAR Pro Level I certification, ASE certification, Graduate follow up surveys, and job placement results.
The student will utilize best practice repair processes and complete vehicle repairs in accordance with safety standards.	**Direct** The students will be assessed using a final clinical exam and a written exam. The assessments will be evaluated using scoring rubrics that outline each specific measure. Student tests, lab reports, performance evaluations, and presentations will be used to check for comprehension. **Indirect** I-CAR Pro Level I certification, ASE certification, Graduate follow up surveys, and job placement results.
The student will demonstrate proper use of tools and equipment as used in day to day operations at an auto body repair facility.	**Direct** The students will be assessed using a final clinical exam and a written exam. The assessments will be evaluated using scoring rubrics that outline each specific measure. Student tests, lab reports, performance evaluations, and presentations will be used to check for comprehension. **Indirect** I-CAR Pro Level I certification, ASE certification, Graduate follow up surveys, and job placement results.
The student will demonstrate the correct procedures to apply high quality entry level refinish processes.	**Direct** The students will be assessed using a final clinical exam and a written exam. The assessments will be evaluated using scoring rubrics that outline each specific measure. Student tests, lab reports, performance evaluations, and presentations will be used to check for comprehension. **Indirect** I-CAR Pro Level I certification, ASE certification, Graduate follow up surveys, and job placement results.

The student will demonstrate proficiency in the preparation and color matching of OEM vehicle finishes.	**Direct** The students will be assessed using a final clinical exam and a written exam. The assessments will be evaluated using scoring rubrics that outline each specific measure. Student tests, lab reports, performance evaluations, and presentations will be used to check for comprehension. **Indirect** I-CAR Pro Level I certification, ASE certification, Graduate follow up surveys, and job placement results.
The student will identify structural damage and create a repair plan for correction to the vehicle structure.	**Direct** The students will be assessed using a final clinical exam and a written exam. The assessments will be evaluated using scoring rubrics that outline each specific measure. Student tests, lab reports, performance evaluations, and presentations will be used to check for comprehension. **Indirect** I-CAR Pro Level I certification, ASE certification, Graduate follow up surveys, and job placement results.

Will the proposed program seek program-specific accreditation?

☒Yes

☐No

If yes, provide the institution's plans to seek accreditation, including the expected timeline for accreditation. (500 characters)

The current certificate program is accredited in three of the four possible areas through the National Automotive Education Foundation (NATEF). Accreditation lasts for five years with a mid-point review to check for compliance. The approval of the associate degree program allows the program to become "master-certified", which is the highest NATEF certification awarded.

Additionally, the program is already aligned with the ICAR Professional Development Program, but will be able to expand the course offerings through the addition of the degree. ICAR, the Inter-Industry Conference on Auto Collision Repair, is an international not-for-profit organization dedicated to providing the information, knowledge and skills required to perform complete, safe and quality repairs.

Will the proposed program lead to licensure or certification?

☒Yes

☐No

If yes, explain how the program will prepare students for licensure or certification. (500 characters)

Upon completion of coursework, students will be required to take the ICAR Pro Level 1 certification exams for the Refinish, Non-Structural and Structural roles. Costs will be covered with program-specific fees that are attached to key courses. The program will prepare students for these exams by following the subject-specific course design. Each course aligns with one of the four roles designated by the industry (Refinisher, Non-Structural Tech, Structural Tech, and Mechanic Tech). The students also participate in practice exams that are housed in the college library, both in print and online. The tests are designed, administered, and scored by a third-party organization and the results are reported to ICAR.

Students will also have the option to take the ICAR Welding Certification exam as they finish the program. This certification is not mandatory, as all roles in the industry do not require a student to be able to weld. Students that are going to pursue a career as a Non-Structural or Structural Technician will be encouraged to take the third-party exam.

Teacher or School Professional Preparation Programs

Is the proposed program a teacher or school professional preparation program?

☐Yes

☒No

If yes, complete the following components.

Area of Certification

Please attach a document addressing the South Carolina Department of Education Requirements and SPA or Other National Specialized and/or Professional Association Standards.