

IDAHO STATE UNIVERSITY COLLEGE OF TECHNOLOGY

PROGRAM TITLE: AUTOMOTIVE COLLISION REPAIR & REFINISHING

Information included in this handout may change at any time without notice and should not be considered as a binding contract between Idaho State University and students.

Program Options & Length:

Automotive Collision Repair, Technical Certificate	2 ½ Semesters
Automotive Refinishing, Technical Certificate	2 ½ Semesters
Automotive Collision Repair & Refinishing, Advanced Technical Certificate	4 Semesters
Automotive Collision Repair & Refinishing, Associate of Applied Science degree	4 ½ Semesters

**Entry dates
for this program:**
August and January

**Approximate cost
for books, tools,
& supplies:**
\$1,732.50 to \$2,012.50
(See below for registration fees.)

**For more information,
Contact:**
Idaho State University
College of Technology
Student Services Office
Campus Box 8380
Pocatello, ID 83209-8380
208-282-2622
e-mail: ctech@isu.edu
www.isu.edu/ctech/

Job Description: Automotive Collision Repair and Refinishing technicians repair damaged vehicle bodies and body parts from complete body off-frame repair to the smallest door dent in the body and then refinish the color to make it look like new again. We examine vehicles to determine type and extent of the damage by analyzing the best way to repair the damage.

We teach the removal of all types of interior and exterior trim so we may either repair or replace any panel on the vehicle, as well as grills, bumpers, both steel and soft cover. We remove and replace all types of weld-on panels and bolt-on panels, along with plasma cutting; we teach resistance spot welding, M.I.G. welding, use oxyacetylene for cutting, heating, and stress relieving. We straighten frames and align bodies for proper fit with hydraulics and frame machines, using both portable and dedicated machines. We teach both metal finishing and the use of body fillers with both air and electric power tools. We teach corrosion protection and prevention in all collision and refinishing.

Refinishing starts by properly sanding and then priming to obtain corrosion protection and to fill minor imperfections; blocking, masking, sealing and then top-coating with a quality, single-stage or a two-stage base coat paint followed by a high gloss clear coat. The ultimate finish is a tri-coat, pearl type paint that is very popular in this day of high-tech products. We also repair and refinish by blending paints of all colors. We mix all our own paint.

Aptitudes and Interests: Use independent judgment in planning work and in selecting the proper tools for the job, use fingers and hands rapidly and skillfully, manipulate small and large tools and equipment accurately, distinguish colors for color-matching and painting. Workers should be willing to assume responsibility for quality of work, be tactful in dealing with customers, and be interested in doing mechanical work.

TUITION AND FEES ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTIFICATION

Tuition for this program is paid every August and January.

The following fees are for the **2007/2008** school year:

TUITION PER SEMESTER	\$2,200.00
TUITION PER SEMESTER/NON-RESIDENT	\$6542.00
STUDENT INSURANCE PREMIUM PER SEMESTER (REQUIRED)	\$ 523.00*
PART-TIME REGISTRATION FEES	\$221.00 PER CREDIT

*Any student with existing health insurance coverage may be exempt from participation in the Student Insurance Plan by completing and filing a Health Insurance Waiver each academic year. This waiver can be found through the college website at <http://www.isu.edu/stuhlth/insurance/pp.html> .

ACT scores are not required for admittance to the College of Technology,
however they are required to qualify for some scholarships.

Educational and Other Requirements: Must possess a driver's license; it is necessary to test drive vehicles and move cars in and out of the shop. You should be able to drive both a manual and automatic shift vehicle, and be willing to purchase your own tools. Completion of high school or GED is required.

Helpful High School Courses:

Auto Body Repair and Refinishing	Machine Shop
Automobile Mechanics	Sheet Metal
Basic Mathematics	Welding

Related Occupations:

Auto Body Repair Helper	Glass Installation
Automobile Mechanic	Insurance Estimator
Auto Reconditioning	Painter
Auto Repair Service Salesperson	Painter's Helper
Fiberglass Repair	Service Manager
Frame Machine Operator	Welding
Front-End Alignment	

Former College of Technology students who have been out of school one semester or more must complete the necessary forms in the Student Services office before returning to the program. Re-entering students must meet requirements as outlined in the catalog effective at the date of their re-enrollment. Students may choose any subsequent catalog to meet graduation requirements as long as they have continuous enrollment.

Idaho State University subscribes to the principles and laws of the State of Idaho and the federal government, including applicable executive orders pertaining to civil rights. All rights, privileges, and activities of the University are made available without regard to race, creed, color, sex, age, disability, national origin or veteran status. The University is an Equal Opportunity and Affirmative Action employer. Evidence of practices that are not consistent with such a policy should be reported to:

Leonard E. "Buddy" Frazier, Affirmative Action Director
Museum Building, Room 422 Box 8315
E-mail frazleon@isu.edu
(208) 282-3964

Idaho State University is committed to equal opportunity in education for all students, including those with documented disabilities. If you have a diagnosed disability or if you believe that you have a disability that might require reasonable accommodations, please contact:

Dennis J. Toney, ADA Disabilities and Resource Center Director
Graveley Hall, Room 123 Box 8121
E-mail tonedenn@isu.edu
(208) 282-3599

NOTE: Licensure, certification, and/or employment applications related to some degree programs require students to disclose any history of criminal prosecution which may include the student's driving record. Students who have a criminal history are strongly encouraged to contact the licensing agency or meet with the coordinator of the program they are interested in, prior to beginning classes, to discuss potential impediments to licensure, certification, or employment.

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CURRICULUM

2 1/2, 4, or 4 1/2 Semesters

Two technical certificates, one advanced technical certificate, and one Associate of Applied Science degree are available to the student.

AUTOMOTIVE COLLISION REPAIR 2 ½ Semesters. A minimum of 40 credits is required for a technical certificate in Automotive Collision Repair. Required courses: ACRR 146, 147, 210, 211, and 212.

AUTOMOTIVE REFINISHING 2 ½ Semesters. A minimum of 40 credits is required for a technical certificate in Automotive Collision Repair. Required courses: ACRR 146, 147, 160, 161, and 162.

AUTOMOTIVE COLLISION REPAIR & REFINISHING, ATC 4 Semesters. A minimum of 64 credits is required for an advanced technical certificate in Automotive Collision Repair and Refinishing. Required courses: ACRR 146, 147, 160, 161, *162, 210, 211, and *212.

AUTOMOTIVE COLLISION REPAIR & REFINISHING AAS 4 1/2 Semesters. A minimum of 80 credits is required for an Associate of Applied Science degree in Automotive Collision Repair and Refinishing. Required: 80 credits from courses ACRR 146, 147, 160, 161, *162, 210, 211, *212, and 16 transferable general education credits: ENGL 101 and COMM 101; three (3) credits from Goal 3 (mathematics); three (3) credits from Goals 6, 7, 9, 10A, 11, or 12; and four (4) additional credits from any courses meeting the requirements of Goals 2 through 12.

*ACRR 252, Cooperative work experience may be substituted for either ACRR 162 or ACRR 212.

Upon completion of the Associate of Applied Science degree, a Bachelor of Applied Technology degree is available to a student with the completion of formally approved academic courses.

You may appeal placement decisions made by Student Services through a petition process. Please call 208-282-2622 for more information.

TGE 199 INTRO TO ISU (Elective) 1 credit. Provides an extended orientation to the university for new students. Utilizes presenters from various campus support systems, collaborative learning activities, and written assignments which involve students in resources and activities on campus. F, S

ACRR 146 INTRODUCTION TO AUTOMOTIVE COLLISION & REFINISHING 8 credits. Orientation to university, school, and program policies and procedures. Theory and practice to use and care for body tool fasteners; operation of oxyacetylene and M.I.G. welding equipment including brazing and cutting. Also, the fundamentals of basic metal finishing including the use of plastic filler. Safety rules and procedures will be emphasized. PREREQ: Must have tools in hand or ordered within three weeks or withdraw. "Right to Know" laws, OSHA, and hazardous material are stressed. F, S

ACRR 147 MINOR COLLISION REPAIR & REFINISHING 8 credits. The metal finishing with fillers is continued. Refinishing fundamentals are taught and practiced, including prepping vehicles for refinishing from washing the vehicle to the final top color or clear coat. Projects will be both component and customer vehicles. Systems application is taught. PREREQ: ACRR 146. F, S

ACRR 160 ADVANCED REFINISHING I 8 credits. Advanced technical refinishing terms will be introduced and explained along with Environmental Protection Agency laws. High Volume Low Pressure application will be used. Emphasis on detailing a vehicle. System application will be emphasized. F, S

ACRR 161 ADVANCED REFINISHING II 8 credits. Single stage, two stage, and tri-coating will be stressed in live projects. The ability to use High Volume Low Pressure application system will be improved, paint problems will be introduced. PREREQ: ACRR 160. F, S

ACRR 162 ADVANCED REFINISHING III 8 credits. This course will prepare the student to match the area to be refinished for a better blend with the existing finish. Striping and painting variation of applications. Problems will be covered again. PREREQ: ACRR 161. F, S

ACRR 210 ADVANCED COLLISION REPAIR I 8 credits. Training in automotive electrical circuitry. Fiberglass, interior and exterior plastic repair will be taught, glass removal and replacement, and removable body panel and parts. Advanced training in panel alignment and replacement. Advanced welding techniques will be taught. F, S

ACRR 211 ADVANCED COLLISION REPAIR II 8 credits. Damage inspection and use of shop manuals will be used in damage analysis and writing collision damage reports. Basic frame and unibody repair and alignment. Steering and alignment systems will be diagnosed and repaired in conjunction with frame and unibody repair. PREREQ: ACRR 210. F, S

ACRR 212 ADVANCED COLLISION REPAIR III 8 credits. Advanced training in the areas needed most that have been covered in ACRR 210 and 211, with emphasis placed on quality and speed. PREREQ: ACRR 210 and 211. F, S

ACRR 252 COOPERATIVE WORK EXPERIENCE 8 credits. An opportunity for the student to receive on-the-job work experience with an automotive body business in either collision repair or refinishing. F, S

ACRR 298 SPECIAL TOPICS (Variable) 1-8 credits. This course is designed to address the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program's full-time pre-employment curriculum. Permission of the instructor is required.

The following offerings are optional technical courses:

TGE 156 BUSINESS PRINCIPLES 2 credits. Course provides an overview of business/economic principles related to technical courses of study. D

TGE 158 JOB SEARCH 1 - 2 credits. Comprehensive study and practice of job search activities, including company research, networking strategies, interviewing behavior and writing the resume and business correspondence. Course culminates in the preparation of a professional portfolio. The two credit option provides students with extensive interviewing experience in a variety of settings. D

TGE 160 HUMAN RELATIONS 2 credits. Course provides a study of human behavior in an occupational environment with emphasis on communications, motivation, leadership, and personal attitude. D

**FOR DETAILED INFORMATION ON GENERAL EDUCATION CLASSES,
PLEASE REFER TO THE ISU UNDERGRADUATE CATALOG OR CLASS SCHEDULE.**

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COURSE SEQUENCE

1st Semester

Cert	ATC	AAS	Course #	Course Title	Credits
x	x	x	ACRR 146	Introduction to Automotive Collision and Refinishing	8
x	x	x	ACRR 147	Minor Collision Repair and Refinishing	8

2nd Semester

Cert	ATC	AAS	Course #	Course Title	Credits
x	x	x	ACRR 160	Advanced Refinishing I	8
x	x	x	ACRR 161	Advanced Refinishing II	8

3rd Semester

Cert	ATC	AAS	Course #	Course Title	Credits
x	x	x	ACRR 162	Advanced Refinishing III	8
x	x	x	ACRR 210	Advanced Collision Repair I	8

4th Semester

Cert	ATC	AAS	Course #	Course Title	Credits
x	x	x	ACRR 211	Advanced Collision Repair II	8
x	x	x	ACRR 212	Advanced Collision Repair III	8

Students will also need to schedule the following classes if they are seeking the Associate of Applied Science degree: six (6) credits in communication from Goal 1 (ENGL 101, 102); three (3) credits from Goal 3 (mathematics); three (3) credits from Goals 6, 7, 9, 10A, 11, or 12; and four (4) additional credits from any courses meeting the requirements of Goals 2 through 12.

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BOOK AND TOOL LIST

Textbooks may be purchased at the University Bookstore located at the Pond Student Union - Building #14. Textbooks may also be purchased or reserved on-line through www.efollett.com or the bookstore's website at www.isu.edu/bookstor. Payments may be made with cash, check, VISA, MasterCard, American Express, or Discover. A shipping charge will be added for mail orders. See the bookstore's website for more information on purchasing or reserving books or for refund policy information. **Save Your Receipts!**

**Approximate total book and tool costs for this program's options are listed below.
Additional book costs will vary depending on the courses taken to fulfill
general education requirements for the AAS degree.
For a breakdown of books by individual class requirements, you must check your course
curriculum.**

NOTE: PRICES ARE SUBJECT TO CHANGE AT ANYTIME WITHOUT PRIOR NOTIFICATION

FIRST SEMESTER

I. TOOLS (Other tools may be added as per options, students may register in ACRR 160-210.)

QUANTITY	DESCRIPTION
1	Cabinet, 8 to 10 drawer, rollaway, 26 3/8" x 32 3/8" x 18" with: panel front locks, 3" roller bearing wide tread casters, 2 rigid and 2 swivel brakes
1 ea	1/4" drive - socket, 6 point hex, regular length - sizes: 3/16" 7/32" 1/4" 9/32" 5/16" 11/32" 3/8" 7/16" 1/2"
1 set	1/4" drive - socket set 4 m to 13 mm
1 ea	1/4" drive - socket, 6 point hex, deep length - sizes: 1/4" 9/32" 5/16" 11/32" 3/8" 7/16" 1/2"
1	1/4" drive - 2" extension
1	1/4" drive - 6" extension
1	1/4" drive - Ratchet, reversible 5" approximate
1	1/4" drive - Universal joint
1 ea	3/8" drive - socket set, 6 point, square drive - sizes: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 mm
1 ea	3/8" drive - socket set, 6 point hex regular length - sizes: 3/8" 7/16" 1/2" 9/16" 5/8" 11/16" 3/4" 13/16" 7/8"
1	3/8" drive - 6" extension
1	3/8" drive - 3" extension
1	3/8" drive - Ratchet, reversible 7"
1	3/8" drive - Phillips Bit #3 - 3/8" drive
1	3/8" drive - Phillips Bit #2 - 3/8" drive
1	3/8" drive - Universal Joint
1 ea	Combination End Wrenches, 6 point, sizes: 8, 9, 10, 11, 12, 13, 14, 15, 18 mm and 3/8" 7/16" 1/2" 9/16" 5/8" 11/16" 3/4"

1	Awl, scratch
1	Block, 3" x 5" Sanding
1	Block, 3" x 8" Sanding
1	Blow gun, Air (meet OSHA standards)
1	Brush, 1/4" Arbor wire clean
2	Brush, 2" paint
1	Brush, Hand Wire
1	Chisel, 6 x 1/2" cold
1	Drill kit 1/8" - 3/8" drill bits
1 set	Ear Plugs
1	File Holder, 14" body, metal or wood handle
1	File, 10" flat bastard w/handle
1	File, 10" rat tail rd, bastard w/handle
1	File, 10" Surform Curved
1	File, 14" 8-tooth body, Vixon
1	Flashlight
1 pr	Glasses, Safety
1 box	Gloves, Latex Examination
1	Hammer, Sledge 3#, cross pein
1	Holder, Razor blade with 50 blades
1	Knife, 1 1/2" putty (flexible)
1	Knife, 4" putty (flexible)
1	Light, 25 foot drop, 3 wire with rough service bulb
1	Pliers (or wire cutters), diagonal cutting
1	Pliers, 8" slip joint, Standard
1	Pliers, Needle nose
1	Pliers, Vise grip set, 8" and 10"
1	Pry Bar, 5/8" x 16" long
1	Punch, 1/4" x 6" Center
1	Punch, 3/16" x 9" Aligning Drift
1	Quick coupler, male (Example: Milton #727, AmFlo #CP210)
1	Remover, Reveal Molding Clip

1	Remover, Window and door handle
1	Remover, Windshield Wiper
1	Respirator, Bodyman (example: 3 M 7056, 7057, or 7058)
1	Screwdriver set, 5 piece Standard
1	Screwdriver set, Phillips
1	Snips, tin
1	Tape measure, Power, 1/2" or 3/4" x 12' with Fractional & <u>Metric Readings</u>
1	Torx Set T-10 - T-50
1	Wrench set, 7 key hex, 5/64", 3/32", 1/8" 5/32", 3/16", 7/32", 1/4"
1	Wrench set, hex key metric
1	Wrench, 8" adjustable
Check with instructor before purchasing the following items:	
1	Dolly, All purpose
1	Dolly, Toe and/or Bead
1 pr	Gloves
1	Hammer, 6" pick
1	Hammer, Cross pein body
1	Long board sanding block - 3" x 17"
1	Mask, Bullard Air Hood, Fresh Air - or - Survive Air 1/2 Mask
1	Remover, Trim Panel
1	Spoon, <i>Light Slapping</i>
APPROXIMATE TOTAL TOOLS FOR AUTOMOTIVE COLLISION R&R	
\$1,300.00 to \$1,500.00	

II. COVERALL PROGRAM - REQUIRED

- . The coverall program is on a rental basis.
- . The laundry will supply each student with 3 pairs of coveralls.
- . There is a \$15.00 rental and laundry fee for each session.
- . The rental fee is due at registration fee payment time.

APPROXIMATE TOTAL COVERALLS	\$75.00 to \$135.00
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III. BOOKS (LISTED BY COURSE) & SUPPLIES

DESCRIPTION	APPROXIMATE PRICE	
ACRR 146 INTRODUCTION TO AUTOMOTIVE COLLISION & REFINISHING		
AUTO BODY REPAIR TECHNOLOGY, 4th ed, by Duffy	0-7668-6272-2	120.50
*ACRR 160 ADVANCED REFINISHING I		
PAINTING FOR COLLISION REPAIR, 1999, by Crandell	0-7668-0905-6	56.00
Class fees (\$10 each for ACRR 146, 147, 160, 161, 162, 210, 211, 212, 299)		90.00
Shoot Suit for Painting Booth (See Instructor before purchasing)		30.00 - 50.00
Calculator		25.00
Binder, 3-Ring (hard) with paper		16.00
Graduation Application fee for first Certificate/Degree		20.00
Optional fee for any additional Certificate/Degree		(10.00)
APPROXIMATE TOTAL BOOKS & SUPPLIES		\$357.50 to \$377.50

APPROXIMATE TOTAL BOOKS & TOOLS - TECHNICAL PROGRAM	\$1,732.50 to \$2,012.50
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TUITION AND FEES ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTIFICATION.
 ANTICIPATE ADDITIONAL EXPENSES ASSOCIATED WITH THIS PROGRAM:
TEXTBOOKS ASSOCIATED WITH ACADEMIC COURSES,
 TRANSPORTATION, PARKING, CHILD CARE, HOUSING.
 YOU MUST CHECK YOUR CLASS SCHEDULE TO DETERMINE TEXTBOOKS REQUIRED BY
 INSTRUCTOR.