

Gunsmithing Frequently Asked Questions

How long is the program?

It is a two-year program running four semesters (Monday-Thursday) for approximately six hours per day. Once you finish the two-year program with a 3.5 GPA you are eligible to apply for the 3rd year Advanced Certificate, which is a two semester program.

May I start at any time during the year?

No, we only start a new class in Fall, usually mid-August.

How old do I have to be to get into the Gunsmithing program?

18 years old by the start of classes.

Do I have to take general education classes?

Yes, if you want to receive the AAS in Gunsmithing.

No, if you are interested in getting the Gunsmithing certificate. The Gunsmithing certificate program is exactly the same whether going for the AAS or the certificate.

What is the cost of tuition?

Arizona residents: \$1,380 per semester (10 credits) as of Fall 2018.

Out-of-state residents: \$4,170 per semester (10 credits). WUE is not available for the Gunsmithing program.

After I graduate is it possible to find a job?

We do not have a placement program for graduates. However, some manufactures and Gunsmith shops, from around the country, do contact us when they have openings.

What will I learn?

- Machine shop, a great deal of Gunsmithing is metalworking, therefore considerable amount of time is spent in the shop learning operations and special techniques relevant to the trade.
- Function, disassembly, assembly, and customizing of rifles, shotguns, and handguns.
- Stock making, starting with a blank, duplicate, inlet, bed, fit, shape, install hardware, finish, and checker a stock for your rifle.

- Fitting barrels on rifles and handguns, consisting of threading, chambering, crowning, and custom contours.
- How to correctly and accurately install metallic, and optic sights.
- Metal refinishing, including black oxide, phosphate, slow rust, and nitre bluing.
- Internal and external ballistics.
- Engraving, this is an optional class.

What are the daily hours of the gunsmithing lab?

We have two sessions Monday-Thursday. 1st session is from 8am to 3pm, 2nd session is from 2pm to 9pm.

A highly recommended, yet optional class is held on Fridays called the Practicum

What can I expect to pay for tools?

This depends on the quality of tools and how many you need to buy (if you don't already have them). You can expect between \$2,000 and \$3,000 for the first semester.

There will be a tool list given at the end of every semester for the next one. This list won't be as long but might also include stock blanks, barrel blanks and other supplies.

Gunsmithing Facilities

The College is located in Prescott, Arizona, a historic western town of 34,000 residents. Surrounded by National Forest, the region has numerous opportunities for hunting, fishing and all manner of outdoor activities. Many nationally and internally famous firearm businesses and personalities are here, as are numerous sporting ranges.

Tooling available in the shop include:

Mills: Bridgeport, Jet, Kent

Fourteen Bridgeport style mills with digital readout. Several with power feed and rotary table. This mill is especially configured for fluting barrels, octagon barrels and quarter ribs.

Lathes:

South Bend, Jet, Emco-Maier (Austrian), Enco and Bolton

Heat Treat Ovens: Three

All especially manufactured by Corbin to provide more exact control of the specific oven temperature.

Precision Grinders

Surface and universal cutter.

Optical Comparator and Hardness Tester

For greatly magnifying small parts to illustrate their relationships and condition. Also the ability to check Rockwell hardness of various firearm components.

Stock Duplicator

This is available to 4th semester and 3rd year students. From selecting the stock blank, configuring the master (form, figure, drop, cast, pitch, pull and cant) to shaping, inletting, checkering and finishing. You are taught ALL the aspects of stock making by a professional.

Engraving

Work stations for five Gravermeisters and a Gravermax. Engraving is taught by Rachel Wells, Board member for the Firearms Engravers Guild of America.

Work Benches

Each student has a workspace with a bench that has a vise, and locker.

Bluing Room

The bluing tanks were especially constructed according to a design by our bluing instructor. From remote lighting and water controls to access to rinse troughs and the work table, this is the best bluing system.

Support

The welding shop is located next to the Gunsmithing shop area. A complete series of welding courses and equipment is available through the program. This includes gas, arc, MIG, TIG and plasma arc.

Miscellaneous Tooling

Of course we have a variety of the usual tooling on hand. Barrel vises, pantograph, Rockwell tester, saws, buffers, grinders, drill presses, torches and firearm specific tooling.

General Safety Rules

All safety rules always apply

Issues involving safety the instructor is to be obeyed explicitly. You must follow all posted directions. You must wear eye protection when using a power tool or caustic chemicals. You must never wear loose clothing/jewelry/long hair when using a power tool. No rough play in the shop. Any injury, no matter how slight, is to be immediately reported to the lab supervisor or instructor. The use of headphone stereos is prohibited when bluing or using mills, lathes or other power equipment. Any student who is disruptive to a class or unsafe, will be removed from class at the instructor's discretion and referred to the Judicial Coordinator's Office.

Transporting firearms on campus

Firearms are not to be taken to the class areas without the specific permission of the instructor affected (i.e. classroom demonstration) and the Y. C. Police Department. Firearms are not to be carried to or around the general campus areas such as snack bar or library. Firearms are not to be left in vehicles. Firearms transported anywhere outside the Gunsmithing Lab are to be cased. You may store your firearms in your Gunsmithing locker or in the Y. C. Police Department's gun locker. Y.C.P.D. can also store ammunition for you.

Unsafe activity

Habitual unsafe activity cannot be tolerated. Persons deemed unsafe by continued unsafe activity may be subject to restricted access to the shop, equipment, or in severe instances may be referred to the Judicial Coordinator. No rough play is ever allowed in the Gunsmithing laboratory.

Drugs, alcohol, tobacco

No one may use illegal drugs prior to entry into or while enrolled in the Gunsmithing program. No one may enter into the class area or partake in classes, field trips, or school sponsored activities while under the influence of alcohol or illegal drugs. No person shall use Gunsmithing or related equipment or handle a firearm if they are under the influence of prescription and/or over-the-counter medication which warn against driving or operating equipment while taking the medication. Neither smoking or chewing tobacco is allowed inside the building.

Ammunition

Live ammunition (or explosive components) is not allowed in the shop without specific instructor approval and supervision. Any ammunition brought in must be immediately placed in the custody of the instructor. Ammunition left with the instructor will not be returned until the student is leaving the shop and campus.

College tools & equipment

Tool Breakage: You will not be charged for normal wear or breakage of tools. If you are using a tool and it breaks or malfunctions, IMMEDIATELY notify the lab supervisor so the tool can be repaired or replaced. You share the responsibility for a safe shop. Notify the lab supervisor anytime you notice any condition that is unsafe or otherwise worthy of note.

Abuse Of Equipment: A person found to be continually abusive to equipment may be required to take assistance from a tutor, be restricted in access to the equipment, or referred to the Judicial Coordinator for possible disciplinary action.

Laboratory

Clean-up: Clean-up will be announced one half hour prior to the end of each lab period. Fifteen minutes is allowed for each student to finish or put away his/her current project. The final fifteen minutes of the period are general clean-up of the shop area. A general shop cleanup can be called at any time by the instructor. Although each student is expected to clean up the area he or she uses, this does not always happen. Bench areas left dirty can be cleaned at the instructor's discretion. This will usually mean any tools or material left out will be boxed up in the lost and found box and "trash" will be thrown away. Persons leaving machine tools or work areas (i.e. bluing area) dirty may be denied the use of that equipment for a term deemed reasonable by the instructor.

Record Keeping: All firearms brought into the shop and left overnight will be logged in and out of the shop logbook/computer. Each student will maintain an individual written record of firearms brought into the shop throughout their tenure in the program. No Title III/NFA firearms/items will enter the shop without proper documentation present.

Laboratory Access: Only persons who are currently enrolled in courses being taught at the time, or guests of the administration may be in the Gunsmithing lab area. Student wishing to invite guests into the lab must clear the invitation through staff. Currently enrolled GST students may access the lab at times the shop is open as long as there are no scheduled classes in session. It is critical that students clean- up after themselves when they are working outside of scheduled class times.

Classroom rules

Attendance: Yavapai College policy states that an instructor may drop a student from a credit course (by initiating a withdrawal form) as soon as the number of unexcused absences exceeds

the number of class meetings in one week. An instructor should drop a student as soon as the number of unexcused absences in a credit course exceeds the number of class meetings in two weeks.

Cheating Or Stealing: Neither theft nor cheating in any form will be tolerated. All tool boxes/containers are subject to inspection. Such inspection may occur only with the owner present.

Notebook: Each student will be required to keep a notebook. This will be a binder large enough to contain the following: All required reports, grade sheets, tests and quizzes, typed copies of lecture notes (written notes will cost grade points), a plan for each project you have done (drawings from shop manual will suffice), plans for any extra credit projects. At midterm and again at the end of the semester you will hand in the notebook for grading.

At the end of the semester the instructor will keep the grade sheets (you may request a photocopy). The notebook is your property after grading. Tests are the property of the Instructor and will be returned or photocopied at his/her discretion. Please do not hand in a notebook that has been oil soaked or waterlogged. A sloppy notebook will cost you points.

Project Grading: All shop projects will be graded the last shop day of the semester, just prior to cleanup. Everyone will display their work and will be graded in order. Each project must be stamped with the maker's initials. This will not apply to the repair type projects which are done during the semester.

Reports: All reports must be original material. Photocopies of illustrations or charts may be used only if they are credited to sources; likewise quotations or short references. A bibliography listing all sources is required. Reports should be neatly typed. A report will lose grade points for being late. You may do extra credit reports for points in lab or lecture. The instructor must approve any extra credit projects.

Approved Projects In Shop: Only projects assigned or approved may be worked on in the Gunsmithing lab. All heavy machine work and projects assigned in machine shop classes will be done in the machine shop. Projects for the rifle barreling class taught in the machine shop will be done in the machine shop.

A signed copy of these guidelines must be in each student's file prior to working in the shop.