

## EFHC Short Courses 2024/25

Dates	Course	Times	Max no. students	Fee
Sat 26 Oct 2024	Introduction to the centre lathe	10 am to 5 pm	5	£120
Sat 2 Nov 2024	Introduction to Basic Metalwork	10 am to 5 pm	6	£120
Sat & Sun 16 & 17 Nov 2024	Introduction to the watchmakers lathe	10 am to 5 pm	6	£240
Sat 7 Dec 2024	Lathe tool and drill sharpening	10 am to 3 pm	10	£80
Sat 25 Jan 2025	Introduction to clockmaking	10 am to 5 pm	5	£120
Sat & Sun 8 & 9 February 2025	Traditional hand engraving	10 am to 5 pm	6	£240
Sat 22 Feb 2025	Pantograph engraving including cutter making	10 am to 5 pm	6	£130
Sat & Sun 15 & 16 March 2025	Clock wheel and pinion cutting	10 am to 5 pm	5	£240
Sat & Sun 10 & 11 May 2025	More advanced use of the watchmakers lathe	10 am to 5 pm	6	£240
3 Sundays 31 May, 7 & 14 June 2025	Introduction to watchmaking and make your own watch	10 am to 5 pm	12	£440
Tue to Fri 5 to 8 Aug 2025	Clock repair summer school	10 am to 5 pm	8	£480

**Note 1 :** All the above are subject to change if circumstances demand

**Note 2 :** All bookings and enquiries should be emailed to [shortcourses@efhc.org.uk](mailto:shortcourses@efhc.org.uk) To book please enquire whether there is a vacancy before sending payment. If available a place will be reserved for 24 hours and confirmed on receipt of payment.

**Note 3 :** A price discount is available to paid up Centre members, see the members area on our website <https://www.efhc.org.uk>

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## Course Summaries

### **(1) Introduction to the centre lathe**

Aimed at beginners, this course is designed to give students the competence and confidence to use lathes safely for basic operations and includes parallel turning and facing, chamfering, knurling, drilling, tapping and threading using a die on both steel and brass.

### **(2) Basic metalwork**

With such people as those who didn't have the benefit of being taught metalwork at school in mind this course introduces marking out, sawing, filing, drilling and tapping. By the end of the course students will have a very useful clamp to take away.

### **(3) Introduction to the watchmaker's lathe**

Watchmakers' lathes will be described along with checks and adjustments as necessary. Sharpening of gravers will be taught then turning steel parallel, turning a shoulder screw including threading and filing square using a filing rest. It is suggested that students bring their own lathes, gravers and sharpening equipment if they have them although these are available if they haven't.

### **(4) Lathe tool and drill bit sharpening**

Students will be provided with the following to take home afterwards. A high speed steel (HSS) lathe tool, 3 HSS drills of varying sizes, a drill sharpening jig/gauge, a medium grade diamond slip stone and a printed version of the course notes. They will be taught to sharpen both the lathe tool and the drills for use on both steel and brass. Sharpening of gravers, screwdrivers, reamers, broaches, taps and dies along with flat bottomed drills will also be demonstrated.

### **(5) Introduction to clockmaking.**

Indian produced copies of a classic American single train clock design are used on this course. After a general description of the workings of a clock and a demonstration of safely dismantling and re-assembling it participants will each be given one in working order to practice on. They can then dismantle, clean, re-assemble and lubricate it, making any necessary minor adjustments to set it going again.

### **(6) Traditional Hand Engraving of brass.**

A two day introduction to the skills used for centuries to engrave dials, plates etc. in clocks and watches. Participants will be taught to sharpen various shapes of graver and given exercises to develop skill. Hammer engraving as used on hard materials and the use of both compressed air and electricity powered tools will be demonstrated. They will be able to use the power tools limited by the need to share. Gravers, a lazy Susan, leather gloves and magnification will be needed and may be purchased from the tutor if necessary.

### **(7) Clock Wheel and Pinion cutting.**

A minimum of theory will be taught to enable participants to calculate tooth count, blank and cutter sizes where necessary. The various machines available to Centre members will be demonstrated and then they can try their hand at each. Some experience with using a lathe is desirable.

### **(7) Making cutters for a pantograph engraver and using them.**

The Centre has an Alexander pantograph engraving machine along with a Chinese copy of a Deckel tool and cutter grinder which is designed to make single point cutters for engravers. This course teaches students how to make a double ended cutter which they get to keep and how to use it to engrave text, dials and the like with one end and for light milling including crossing out wheels, profiling levers etc. with the other. Some turning is involved so experience with a lathe is an advantage but not essential.

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### **(8) More advanced use of the watchmakers lathe.**

This course follows on from the introduction to the watchmakers' lathe course or is for students with some experience. They will be provided with a drawing and are expected to work to size including turning a shoulder, turning a groove, filing square, threading, softening, and hardening and bluing pivot steel as appropriate. Alternatively they can work in a similar fashion on a balance staff. Bring your own lathe, accessories and measuring kit if you have them.

### **(9) Introduction to watchmaking and 'Make your own watch'**

Students will be provided with a Chinese version of a Unitas 6497 movement, a dial, hands, case and strap which they get to take home afterwards. They are taught to dismantle, clean, reassemble, adjust and lubricate the movement which introduces them to basic watchmaking and the Swiss lever escapement. Then they complete the assembly of the watch and time it. Designed as a pocket watch movement, it has 17 jewels and makes a large wristwatch with a subsidiary second hand in the modern fashion. Any tools needed are available on loan if needed.

### **(10) Clock repair Summer School**

This is an opportunity to bring along a pendulum clock and use the Centre's equipment to repair it with expert help available. Please discuss with us beforehand the suitability of your clock and perhaps bring two in case the first is very quick or too complicated to attempt. A pendulum clock is specified because there will not be enough time to teach work on platforms not in good condition.