

Making and repairing clocks and watches

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Horology is the art and science of making, repairing, restoring and servicing timepieces and measuring devices. It's a specialised craft and horologists need the skills to work with traditional techniques and new technology. For entry to training, you need a good general education and to be good with your hands.

There are occasions when very precise timing is needed - down to hundredths of a second - e.g. to time a sprinter, a Formula 1 racer, a downhill skier or perhaps to launch a spacecraft. Horologists need to be able to service such complex and astonishingly accurate timepieces, and to use electronic diagnostic equipment. New technologies, such as microscopic quartz-controlled integrated circuitry, continue to be developed.

At the same time, traditional skills are also still in demand. Antique clocks can be very valuable, and they often need to be repaired or restored. Horologists need to know the theory and practical applications of their craft. Although there's scope to specialise, horologists are often familiar with both old and new timepieces. You might have to make or restore parts for antique clocks, and also master the completely different skills needed to repair modern mechanical, electrical and electronic clocks and watches.

Currently there is a skills shortage in the clock and watchmaking industry.

What does it take?

Horologists need to have:

- the ability to pay very close attention to detail
- an interest in both restoration and new technology
- practical ability and manual dexterity (good with their hands)
- good eyesight
- a genuine interest in clocks and watches.

Education and training

The British Horological Institute (BHI) offers training programmes and, in association with the engineering awarding body EAL, provides nationally accredited qualifications in clock and watchmaking. There are various ways of training.

Distance learning

The BHI provide distance-learning courses, supported by short practical courses near Newark, in Nottinghamshire. The BHI's newly accredited qualifications, available from mid-2012, are as follows:

- the **Diploma in Clock and Watch Servicing** - taking a year to complete; as well as clock servicing, the course includes the servicing of quartz and basic mechanical watches
leading to either
- the **Diploma in the Servicing and Repair of Clocks/Watches** - a two-year course, developing advanced skills in clock repairing and preparation for work in a modern watch service department
or
- the **Diploma in the Repair, Restoration and Conservation of Clocks/Watches** - a two-year course that covers the areas described for the servicing diploma above, together with the knowledge required for the restoration of clocks and watches.

These courses are available with or without personal tuition and are aimed at both the professional and the dedicated amateur. For details of course fees, see the BHI website (listed under further information).

Full-time courses

Courses in horology are available at Birmingham Institute of Art and Design's School of Jewellery at Birmingham City University. Programmes include the following.

- An **HND in horology** - this lasts two years and combines theoretical, technical and practical study. It covers all aspects of clocks and watches. For entry you will need to have passed the Diploma in Clock and Watch Servicing and have 120 UCAS Tariff points. Relevant experience may also be considered acceptable for entry.
- A course leading to **BHI** qualifications: for further information, see the university's website listed under further information. N.B. Some financial support may be available through the Worshipful Company of Clockmakers and the Antiquarian Horological Society.

West Dean College, a private institution, offers relevant courses including a **college diploma, graduate and postgraduate diploma** in the conservation and making of clocks and other dynamic objects. For entry to the College diploma course, you need a proven interest in horology or a degree or other technical qualification in a relevant subject, or suitable experience and hand skills. The graduate diploma requires a degree, HND or equivalent, for entry, while the postgraduate diploma is open to those with a good degree, the graduate diploma or significant experience. Assistance with funding may be available - the College can advise. The Worshipful Company of Clockmakers also offers financial assistance to some students at West Dean College.

Other training opportunities

It may be possible to find an employer who will take you on as a new entrant and provide training.

The British School of Watchmaking in Manchester, set up by several major employers including Rolex and Swatch, provides the Watches of Switzerland Training and Educational Program (WOSTEP). Students are normally sponsored by the companies that fund the School. For more information, see: www.britishschoolofwatchmaking.co.uk

There are various short courses available in the private sector, including at West Dean College, mentioned previously, or, occasionally, through local colleges. These might be especially suited to those thinking about a change of career and wishing to try out their interest. The BHI runs seminars on various specialist subjects.

Work prospects and pay

There are opportunities with retail jewellers, instrument firms, etc. Some watch manufacturers employ horologists to make and service high-end pieces. Self-employment is also an option for qualified horologists. You could take on work as a trade repairer for local jewellery shops, or act as a local agent for a particular manufacturer. Opportunities are available to work for museums etc, in conservation and restoration. It's possible for horologists to work in jobs such as instrument adjustment or surgical instrument manufacture and repair, since the skills needed are similar.

Horologists may start on a salary of around £16,000. Pay can rise to £25,000+ for those with qualifications and experience, and up to £40,000+ for a master watchmaker.

For further information

British Horological Institute (BHI) - tel: 01636 813795.
www.bhi.co.uk

Birmingham Institute of Art and Design - tel: 0121 331 5940.
www.bcu.ac.uk/biad

West Dean College - tel: 01243 811301.
www.westdean.org.uk

The Worshipful Company of Clockmakers - tel: 020 7638 5500.
www.clockmakers.org

Antiquarian Horological Society -
www.ahsoc.demon.co.uk

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