A Helping Hand for Students

Opportunities to become a clock / watchmaker:

Educational Opportunities
This information is intended for those considering applying to the George Daniels Educational Trust for financial assistance to become a clock or watchmaker working in the horological industry. Horology is one strand to the work of the Trust, the other two being support to students studying at City, University of London, and post graduate medical training for students based in the Isle of Man. The George Daniels Educational Trust Advisory Committee (GDETAC) acts on behalf of, and makes recommendations to, the Trust on all horological aspects of the Trust's objectives.

The Advisory Committee receives many queries concerning career opportunities in horology, including school leavers considering a career in clock or a watchmaker and those thinking about a change in career. A Helping Hand for Students is produced by GDETAC to assist all those investigating the different training opportunities in horology and the support that is available. It is a guide rather than a definitive authority.

There is much background information available online; the following websites providing a useful start:

The British Horological Institute: [www.bhi.co.uk](http://www.bhi.co.uk).


Both websites contain a section which provides an overview and links for each of the centres which offer training for horologists.

There are also sites which provide overall information, for example: [http://www.myjobsearch.com/careers/watchmaker.html](http://www.myjobsearch.com/careers/watchmaker.html).

For the benefit of both the enthusiast and the prospective student considering a career in clock or watch making, there are two categories of training:

1. Education provided through full and part time courses at colleges, universities and the British Horological Institute

2. The Apprenticeship route

The list will not be exhaustive and the inclusion of any particular facility should not be considered an endorsement by the Advisory Committee. Readers should satisfy themselves of the appropriateness of any particular course.
1. British Horological Institute:

The British Horological Institute (BHI) is the largest organisation for horologists both professional and non-professional in the UK; it is therefore in a unique position to offer horological education. When formed, in 1858, the primary function was to provide training, an objective which continues today. Membership of the BHI is necessary to purchase the Distance Learning Course with Tutor Feedback and for short courses. There are workshop facilities and residential accommodation at the BHI headquarters, Upton Hall, Upton, Nr Newark Nottinghamshire, NG23 5TE.

As well as managing the accredited examinations for clock and watchmaking, and providing continuing professional development, the BHI offers excellent opportunities for the aspiring horologist to take the first steps towards becoming a clock or watch maker:

a. The Distance Learning Course.

b. Short practical courses at the BHI, Upton Hall, Upton, Nr Newark, Nottinghamshire, NG23 5TE.

a. BHI Distance Learning Course (DLC):

For over fifty years, the Distance Learning Course has enabled hundreds of students living anywhere in the UK or overseas to learn clock and watchmaking from a structured course. In the early days of the DLC, the student was frequently an apprentice who gained practical experience during the day and the chance to master background knowledge by studying the DLC. The emphasis was towards knowledge with practical making skills and an understanding of Technical Drawing which formed an essential part of the examinations at that time.

Over the years, the course has been revised to include much new material. Today, there are only a limited apprenticeships and the DLC has again changed to meet the needs of a new generation of students - many cannot easily attend a full time college course.

The best approach to begin your studies is to purchase the Technician Grade Distance Learning Course – Practical Clock and Watch Servicing. This is the first year of a three year course of instruction. This course has been completely re-written to teach the basic knowledge and skills required when learning the essentials of horology. Step by step, the student learns from a blend of knowledge and understanding, workshop practice and clock and watch servicing skills. This sound foundation prepares the student for further learning.

The content and exercises contained in the Technician Grade Lessons prepare the candidate for the first year examinations arranged by the Institute for the awarding body EAL (Excellence, Achievement and Learning Ltd.).
BHI Distance Learning Course (DLC), continued:

The Technician Grade DLC is a carefully structured course forming the first building block towards gaining a nationally accredited qualification which can lead to professional membership of the Institute. Candidates, both from the United Kingdom and overseas, use the Technician Grade DLC. Students at Birmingham City University rely on its content for examination preparation and the British School of Watchmaking is provided with a copy. Version 2 was launched in October 2012; sales of the Technician Grade have quickly shown that it is the best course for those wanting to learn clock and watchmaking.

The course is presented in a spiral bound format with twelve A4 booklets which can be bought as a full set including the Introduction and Contents. Each lesson includes theory and practical exercises for the student to complete.

The contents of the course are closely matched to the examination requirements and, commencing at Lesson 10, there are Examination Exercises designed to help prepare students for the examination.

The Technician Grade DLC is an essential learning resource whether or not the student wishes to enter the examinations and gain a qualification. Students will often complete the scheme in one year but many recognise that more time is required.

In addition to the twelve lessons, the student can purchase Tutor Feedback for either single lessons or for the full course. Students submit the theory and practical exercises in each lesson for assessment and guidance.

Many students enquire whether a practical subject can be learnt from a series of books. While practical skills are best gained by observing a skilled practitioner, the course includes sections giving instructions for undertaking all the fundamental processes in clock servicing together with step by step guides to the dismantling and re-assembly of quartz and mechanical watches. Clearly some students learn more readily than others but, the DLC is an important aid to mastering both the knowledge and skills required.

The process to rewrite the Intermediate and Final Grades to the same high standard as the Technician Grade has commenced but, for the interim period, candidates progressing to the Diploma in the Servicing and Repair of Clocks / Watches (Level 4) or the Diploma in the Repair, restoration and Conservation of Clocks / Watches (Level 5) must rely on the Intermediate and Final Grades; there are references provided in the syllabus and some new sections are incorporated.

Two booklets, Technical Drawing and Drawing Clock and Watch Escapements, are included in the Intermediate and Final Grade DLC to enable students to prepare for the examination unit which focuses on escapement construction.
BHI Distance Learning Course (DLC), continued:

The Intermediate and Final Grades are each produced in an A4 ring binder which contains the twelve lessons for each grade. The content lacks colour but includes excellent diagrams and clear descriptions. It is priced at a lower figure to reflect the difference in presentation.

The Distance Learning Courses are only available to Institute Members:

The full Technician Grade course costs (2018 prices), £599.00 plus P&P. Tutor Feedback is priced £360.00 for twelve lessons. Tutor feedback may be purchased on a pay as you go basis; the registration fee is £40.00 and a charge of £30.00 per lesson.

Intermediate / Final Grade: without Tuition, £449.00, total for both grades. Tutor feedback costs £100.00 for the combined course – theory only.

Further details can be found at www.bhi.co.uk or telephone 01636 817604

b. British Horological Institute ‘Short Practical Courses’:

A programme of courses, generally two, three or five days duration is arranged throughout the year at Upton Hall.

There are ‘taster’ courses which provide the chance to discover the appeal of working with clocks and watches. These can be followed by specialist courses, often directed towards the student who has some previous knowledge and courses of a more general nature to provide both an introduction to clock / watch making and the chance to extend knowledge and skills already gained.

The courses often supplement the information provided in the Distance Learning Course; they provide practical sessions taught by experts. Details of the wide range of courses can be found in the BHI monthly Horological Journal and on the BHI website, www.bhi.co.uk. The fact that some courses quickly become fully booked is testament to the quality of teaching and the value to the individual.

Three examples of courses will serve to demonstrate the choice available:

**Servicing Chronographs** course is structured to teach the fundamental skills required to service mechanical chronograph movements; it is by nature, an advanced course. Students are required to have shown some experience by attending courses to learn about servicing manual winding mechanical watches and day / date automatic watches. The Chronograph course is therefore directed towards the more advanced student who has already gained basic skills; students are provided with chronograph movements and the Tutor demonstrates to the group using a digital microscope producing large images which enable the processes to be seen in detail.

*The BHI Chronograph Course.*
BHI ‘Short Practical Courses’, continued:

In contrast, Basic Clock Part I is a course suitable for the newcomer as well as the student with some experience. The syllabus, which includes fundamental knowledge and servicing skills, is taught to students who bring their own clocks. A balance of group and individual tuition extends each student’s achievement enabling them to undertake procedures requiring greater knowledge and understanding.

Some courses such as Cylinder Escapements teach highly specialised techniques for the student wishing to focus on watch restoration. The Tutor has considerable experience gained by restoring watches for the collector; the students benefit from personal attention and group teaching to master techniques essential for the watch restorer.

The maximum number of students that can be accommodated in the clock or the watch workshop is six; students can choose a range of courses to support and extend the knowledge and exercises they are learning from the BHI Distance Learning Course.

How much does it cost?
The courses are priced both with and without accommodation and breakfast:

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Further details from www.bhi.co.uk or telephone 01636 817603.
2. Colleges:

If you are considering becoming a professional clock or watch maker, the benefits of attending a full time course should be carefully considered. Brief information will be provided for each of the three colleges but prospective students should use the contact details to gain full information prior to visiting and considering and application.

a. Birmingham City University:

Birmingham City University includes a department for horology at the School of Jewellery in the heart of Birmingham’s Jewellery Quarter. The department can accommodate up to fifteen students per year for three years using two well equipped workshops and the wider resources within the School of Jewellery. The main workshop is used by the majority of students for both clock and watch servicing and the making of components; a recently developed smaller workshop is used for watch servicing. Additional accommodation within the School of Jewellery is used for teaching the theory of horology and technical drawing.

An engineering workshop is a valuable resource shared with other departments, as are the specialist casting, electroplating, forming, CAD and rapid prototyping facilities.

The BA Hons Horology Degree:

There is a range of studies to prepare students for professional practice within the broad spectrum of horology. With core values of employability and student experience, the curriculum has been designed to develop the traditional skills associated with clock and watchmaking whilst encouraging the exploration and use of developing technologies to meet modern standards.

Students will design and make a final year ‘Masterpiece’ - a significant horological mechanism that will showcase the combined workshop and employability skills of the individual.

The skills learnt enable students to sit and gain the professional examination qualifications managed by the British Horological Institute and accredited by EAL.
Birmingham City University, continued:

How Much does it cost?
Tuition fees are in line with graduate courses nationally with student loans generally available to help finance the three year attendance. Further details can be found at: http://www.bcu.ac.uk/courses/horology-ba-hons-2018-19 or contact the Head of Horology at Jeremy.hobbins@bcu.ac.uk

b. The British School of Watchmaking:
In 2006, an industry group of ten companies was formed to finance the purchasing of equipment and the provision of teaching staff to offer a two year, 3,000 hour course, and a one year, 1,800-hour course, at premises near Manchester.

The majority of the eight students admitted each year are sponsored by the ‘founder companies’ but any available places are offered to ‘private students’.

The staff to student ratio is excellent with staff periodically attending courses in Switzerland. The teaching facilities include well equipped workshops and training material provided by the Swiss watch industry. Sponsored students are employed and funded by the company concerned; private students finance their attendance independently.

The British School of Watchmaking offers the WOSTEP ‘3,000-hour’ course and introduced a shorter ‘1,800-hour’ course which commenced in January 2018.

The 1,800-hour course offers training to enable the student to proficiently service quartz and mechanical watches including automatic watches. It does not include skills to make components such as a stem and a balance staff.

The 3,000-hour course include work on chronographs and the skills to make small components for watches; all students practise making stems and balance staffs.
The British School of Watchmaking, continued:

How much does it cost?
Private students commencing the 3,000 hour course in September 2017 paid £17,500, for the two years tuition together with £1,615 for the purchase of tools.

For the 1,800 hour course, commencing in January 2018, the cost was £9,000 and £2,310 for tools.

Further details can be found at www.britishschoolofwatchmaking.co.uk

c. West Dean College:

For many years, the Edward James Foundation has been providing a range of specialist full time conservation courses at West Dean College, Sussex. These include the Conservation and Making of Clocks.

Students use the well equipped workshop and the full facilities of the college for their studies; historic clocks are provided for bench practice.

Most students are resident at the college and are able to use the college facilities during evenings and weekends. A total of around eight ‘clock’ students enroll each year with students working together to follow the range of courses in the clock workshop. The courses are validated by Sussex University:

FdA Historic Craft Practices: a two year practical course which equips students for a career in clock making, restoration and conservation.

Graduate Diploma, Conservation of Clocks: the one year programme provides a context for the analysis, assessment and treatment of historic objects. Students learn professional standards of conservation practice as they develop practical and theoretical conservation skills.

Post Graduate Diploma, Conservation of Clocks: the one year programme has an international profile for conservation of clocks and dynamic objects, and provides an historical and cultural context for the analysis, assessment and treatment of historic objects.
West Dean College, continued:

Students develop practical, theoretical and professional conservation skills and apply their learning to making treatment decisions for exciting and challenging projects.

MA Conservation Studies (requiring an extension to the period required for the Post Graduate Diploma): students who complete the MA Conservation Studies are equipped with the high level specialist skills sought by the conservation sector. The focus is on research through practice, drawing on conceptual, theoretical and critical aspects of the field. This is a rigorous programme that runs concurrently with the Postgraduate Diploma and involves delivery of a major research project.

How much does it cost?

The cost of tuition per academic year for students commencing September 2017 was £13,560 and, accommodation, if required, £6,840.

Further details can be found at www.westdean.org.uk

d. Epping Forest Horology Centre:

Epping Forest Horology Centre (EFHC) describes itself as an “organisation dedicated to the preservation of Horological skills through practical and theoretical teaching in a sociable atmosphere”.

In the twelve years since it was first founded as a club, it has grown to over 100 members and provides a very affordable entry route for new clock and watchmakers, as well as being a place for the more experienced to meet like-minded folk and develop their skills.

Located in West Essex, the Centre has two well equipped workshops for watch and clock making each having twelve benches, a large machine shop, a library and lecture facilities.

People joining EFHC range in age from 18 years to over 80 years; a number are from the trade, but most are dedicated enthusiasts, some of whom use the skills they learn as a stepping stone into the industry.

There is a regular team of five tutors providing afternoon and evening sessions for forty weeks each year along with occasional special short courses for subjects like Silver Soldering, Dial Restoration, and Turning Using a Watchmakers Lathe.

Sessions are available offering both structured teaching and informal support to suit all types of learning styles.
Epping Forest Horology Centre, continued:

How much does it cost?

An initial joining fee of £60 enables the member to subscribe to the activities of the club.

There is a payment for 40 weekly sessions per year. The schedule and current prices are available from the membership secretary.

Further details can be found at: www.efhc.org.uk

3. A Note Concerning the Funding of Full Time Courses:

The opportunity to attend a full time horology course is often dependent on the ability to finance the fees and accommodation. The situation varies widely between each of the three colleges:

a. Birmingham City University, a student who has not attended university previously is likely to be able to access a student loan to assist with the cost of accommodation, books and materials required during the three years.

Repayment of tuition fees will commence when the course is completed and income becomes over £21,000 per annum. Many students use savings and seek part time employment to help fund their period at college.

A student who has attended university previously will normally be wholly responsible for the cost.

The George Daniels Educational Trust offers a scheme which provides financial assistance to students learning horology at Birmingham City University. Details can be obtained from the Secretary, secretary@gdetac.org.

b. West Dean College:

The student is expected to meet the cost of tuition and, if resident, accommodation.

The Edward James Foundation and other charities, such as the George Daniels Educational Trust, frequently assist students by paying part of the cost of tuition. Students usually find it necessary to provide a portion of the funding from savings or a loan.
A Note Concerning the Funding of Full Time Courses, continued:

c. The British School of Watchmaking:

‘Private’ students are entirely responsible for the cost of tuition and accommodation. The George Daniels Education Trust frequently assists private students.

4. Apprenticeships:

The George Daniels Educational Trust offers an apprenticeship scheme that is managed by the Advisory Committee. Clock and watchmaking businesses that are employing an apprentice, or are about to employ one, can apply for financial assistance under the terms of the scheme.

The scheme provides a three year structured course of training incorporating the BHI Distance Learning Course and short courses at Upton Hall. Apprentices are monitored by entering the BHI examinations and additional, ‘achievement payments’, are awarded for success in the examinations.

The three year apprenticeship leads to the nationally accredited qualification, the Diploma in the Servicing and Repair of Clocks / Watches, successful apprentices are eligible to become accredited members of the BHI – MBHI.

Full details and an application form are available on the GDETAC website www.gdetac.org

5. The George Daniels Educational Trust Advisory Committee (GDETAC)

GDETAC advises the George Daniels Educational Trust on all aspects of horology including the support and financial assistance to apprentices and students gaining grants and bursaries for training in all aspects of horology. By actively supporting those wishing to make a career from horology in the UK, whether employed or self-employed, the Trust fund will ensure that future generations are given the opportunity to develop their horological skills.

Students who have received the offer of a full time place at one of the colleges are able to apply to GDETAC for bursaries.

Throughout, the emphasis is on excellence and achievement; it is expected that students who receive bursaries from the George Daniels Educational Trust will be high achievers ready to work hard to gain excellent standards.

Further details and application forms are available from: www.gdetac.org

6. Brief information about qualifications:

The British Horological Institute introduced new ‘Diploma’ examinations in 2012. Candidates in the UK attend examination centres for some units and undertake specified exercises to make Practical Test Pieces and Servicing Clocks / Watches using their own workshop or that of the college / university.
Brief information about qualifications, continued:

The examinations take place in May each year at Upton Hall, Newark, Nottinghamshire. Overseas candidates may complete some units in their country of residence but attend UK examination centres for the final examinations.

There are three ‘Diploma’ qualifications:

a. Diploma in Clock and Watch Servicing (Level 3)

b. Diploma in the Servicing and Repair of Clocks / Watches (Level 4)

c. Diploma in the Repair, Restoration and Conservation of Clocks / Watches (Level 5)

The Diploma qualifications are accredited by Ofqual as part of the Qualifications and Credit Framework by the awarding body EAL (Excellence Learning and Achievement Ltd). The Institute worked closely with industry and EAL to prepare awards that reflect the current employment requirements within clock and watch servicing and restoration.

Professional Membership of the Institute:

- The candidate who gains the Diploma in the Servicing and Repair of Clocks meets the technical competence and horological experience requirements for becoming MBHI.

- The Diploma in the Repair, Restoration and Conservation of Clocks / Watches has met the technical competence and horological experience to become FBHI.

- Full information about the Institute examinations and membership can be found at www.bhi.co.uk

References:

1. The Level for each of the awards given above relates to the Qualifications and Credit Framework (QCF). A table (http://www.ofqual.gov.uk/qualifications-and-assessments/qualification-frameworks/levels-of-qualifications/) shows equivalent awards, for example:

   - Level 3 = AS / A Levels
   - Level 4 = Certificates of Higher Education
   - Level 5 = Foundation Degrees / Higher National Diplomas

This leaflet is produced by the George Daniels Educational Trust Advisory Committee
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