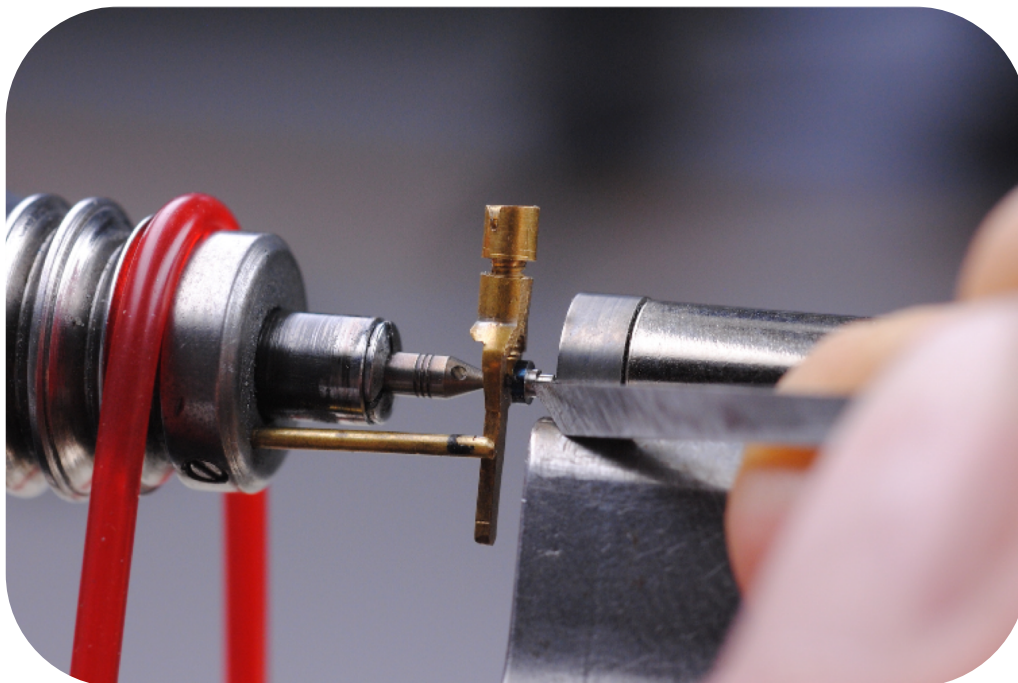


# Turning between centres

Theory and practice of fabricating components  
on a watchmaker's lathe



SCAN ME



The fundamentals to fabricate watch components  
including winding stems and balance staffs

Watchmakers of Switzerland Training and Educational Program  
Centre Suisse de formation et de perfectionnement horloger





## WOSTEP – WHO ARE WE?

Founded in 1966 and supported by the Swiss watch industry, the Fondation WOSTEP, located in the cradle of watchmaking in Neuchâtel, offers training programs covering several watchmaking professions. As a reference centre for watchmaking training and development worldwide, the Fondation WOSTEP transmits unique know-how through cutting-edge teaching. The range of training programs and consulting services offered by WOSTEP are considered quality standards. Employers around the world recognize WOSTEP certification as a proof of technical competence and demonstration of a solid training.

The neutral and independent Fondation WOSTEP is supported by 6 active members who together generate 90% of the turnover of the watch industry in Switzerland. Its ambition is to preserve and promote Swiss know-how abroad. Two pillars of the Foundation are the courses offered in Neuchâtel and the partnership with several schools abroad. The standardization of training programs and evaluation criteria implemented in cooperation with the industry ensures a true Swiss Made on a global scale.

With more than 50 years of experience, WOSTEP manages innovative projects with the close support of its members and donors and positions itself as a real training and skills center of the future.

## CERTIFYING TRAINING

The Neuchâtel school offers certifying training in watchmaking and polishing.

The watchmaking programs are run through a phase of Watch Technician, then Customer Service Watchmaker after one year. Finally, Watchmaker is the additional year more specialized in manufacturing which allows to arrive at a panel of knowledge worthy of traditional haute horlogerie. The student develops in-depth and specific skills in tool maintenance, diagnosis with defect identification, maintenance, movement adjustment, complete service, polishing, precision adjustment, micromechanics and watch manufacturing.

The Customer Service Polishing Technician is a program that allows the reconditioning, disassembly and reassembly of watch cases and bracelet components made of various base metals according to their technical and aesthetic characteristics.

These certification programs make it possible to reach a high level in watchmaking and polishing careers with specific opportunities in international haute horlogerie.

*Note: Certificates – titles recognized for their practical part by the Convention Patronale de l'Industrie Horlogère Suisse (Swiss Watch Industry Employers Federation) / based on governmental orders of the SEFRI (Secrétariat d'Etat à la Formation, à la Recherche et à l'Innovation (SERI - State Secretariat for Education, Research and Innovation).*

## COURS À LA CARTE

To complete our offer, the school hosts multipurpose courses. Practical or theoretical à la carte courses can be developed and implemented on demand. Train the Trainer, Complete Service Standard Operation, Chronometry, Balance Hairspring Manufacturing, Chronograph, Turning, as well as modular and specific polishing courses, such as laser welding refilling, are given regularly.

More details can be found on our website.

## COURSE CURRICULUM

### Course description

The 5-week WOSTEP *Turning between Centres* on the lathe course gives participants the opportunity to manufacture highly-accurate cylindrical watchmaking components, including winding stems and balance staffs, within micron-size tolerances. The knowledge and experience acquired during this course will enable participants to reproduce broken or missing parts.

### C07 – WATCHMAKING - TURNING BETWEEN CENTRES



Duration: 3 weeks

### Main topics

#### Theory

- Machining metals
- Cutting angles and turning speeds
- Reading a technical drawing
- Adapting drawings to specific needs and hand sketches

#### Turning basics

- Various exercises on brass and steel rods
- Making tools
- Drilling, threading with taps and dies

#### Thermic treatments

- Quenching and tempering

#### Turning watchmaking components

- Turning and filing a winding stem
- Turning a balance staff

#### Surface treatment

- Burnishing the winding stem pilot and the balance staff pivots by using a Jacot tool

### Career opportunities

The *Turning between Centres* course is particularly suited to those who wish to become proficient in restoring an old timepiece, as well as prototyping watch components.

### Requirements and target audience

The *Turning between Centres* course is open to all participants who possess basic knowledge and experience in manufacturing metal pieces on a toolmaker's lathe or have attended the *Schaublin-70 Lathe* course.

## TIMETABLE AND PARTICIPANTS

- Monday to Friday: 08:30 – 12:00 / 13:30 – 17:00.
- Maximum 6 participants per session.

## LOCATION

Fondation WOSTEP, Rue des Saars 99, 2000 Neuchâtel, Switzerland

## REQUIRED MATERIAL

All the necessary equipment will be provided by WOSTEP except for loupes.

## MEALS

Meals are not provided and are at the participants cost.

## ACCOMMODATION

Participants have the possibility to stay in the WOSTEP student apartments located close to the school. Alternatively, a list of hotels and guest houses will be sent to them upon request in order to allow them to make their own reservation elsewhere.

The cost for a room in the WOSTEP student apartments is CHF 650.- per week (+ VAT)  
(Single bedroom with free Wi-Fi. Shared kitchen, bathroom and laundry facilities)

## COURSE FEE

- **CHF 6'000.-** per person (accommodation and meals not included)
- -10% discount for member brands + donators
- -75% discount for partnership teachers

## ATTESTATION

An attestation will be delivered upon completion of the course.

## TURNING BETWEEN CENTRES COURSE REGISTRATION

### Session selection

Please indicate your choice of session date/period\*: .....

*\*Select from published program/course dates online or enclosed flyer.*

### Personal details – please fill in CAPITAL letters

☐ Ms. ☐ Mr.

Last name (FAMILY NAME) (s): .....

First name (Given name) (s): .....

Employer: .....

Present occupation and responsibilities: .....

### Mailing address

Name / Company name (if applicable): .....

Street address, n°: .....

Post office box: .....

Zip Code - City: .....

Country: .....

Home phone: .....

Work phone: .....

Mobile phone: .....

Home e-mail: .....

Work e-mail: .....

### Invoice address (if different from the above mentioned)

Name / Company name (if applicable): .....

Contact person: .....

Street address, n°: .....

Post office box: .....

Zip Code – City: .....

Country: .....

Which language(s) do you speak? .....

### Please indicate your choice for accommodation

- ☐ I would like to stay in the students' apartments (subject to availability)  
Single bedroom with free Wi-Fi. Shared kitchen, bathroom and laundry facilities  
Price: CHF 650.- per week (+ VAT)
- ☐ I prefer to stay at a hotel (a list of hotels will be sent with the confirmation)
- ☐ I will not need accommodation

## EDUCATION, EXPERIENCE & PRELIMINARY SELF-ASSESSMENT – TURNING BETWEEN CENTRES

Name of school / Company	Period of time	Hours of training
Self-taught		

### Professional experience (after training):

Name of employer	Full-time	Part-time	Period of time
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

**Turning experience:** Number of years:

Watch brand / product / external component you are most experienced with (case middle, case back, bezel, bracelet):

.....

Please evaluate your level of understanding/acquisition for the criteria below, using the following scale:

**Level 1:** I have an idea; I have heard about it.

**Level 2:** I am beginning to put this into practice.

**Level 3:** I already possess some experience.

**Level 4:** I practice with confidence.

**Level 5:** I have a structured approach to the subject.

**Level 6:** I could coach my colleagues, help them to ensure training.

Competence	Level of understanding / acquisition					
	1	2	3	4	5	6
Gravers shaping						
Turning						
Drilling						
Milling						
Dividing						

### WHERE/HOW DID YOU HEAR ABOUT WOSTEP?

☐ WOSTEP student(s)    ☐ Employer    ☐ Advertisement    ☐ Internet

☐ Other: .....

Date: ..... Signature: .....

To register for the course, kindly complete this form and send to [wostep@wostep.ch](mailto:wostep@wostep.ch) or register directly through our website under [www.wostep.ch/training/programs](http://www.wostep.ch/training/programs).

