2016 Courses.

Cocoa and chocolate.
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Bühler courses. Success through training.

The content in Bühler courses enables your company to increase efficiency. Thanks to the knowledge they gain regarding equipment and processes, your employees have greater expertise and can perform their tasks better and more effectively.
## 2016 course schedule.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Language</th>
<th>Date</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
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</thead>
<tbody>
<tr>
<td>Cocoa course (Basis)</td>
<td>English</td>
<td>Mar. 14. – 16.</td>
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<td></td>
<td>German</td>
<td>July 04. – 06.</td>
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<tr>
<td>Cocoa course (Advanced)</td>
<td>English</td>
<td>Mar. 17. – 18.</td>
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<td></td>
<td>German</td>
<td>July 07. – 08.</td>
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<tr>
<td>Malt course</td>
<td>English</td>
<td>May 10. – 11.</td>
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<td>Chocolate course / Lab course</td>
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<td>Feb. 09. – 11. (Lab Feb. 12.)</td>
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<tr>
<td>(Advanced) (info pp. 14 –19)</td>
<td>Italian</td>
<td>April 05. – 07. (Lab April 08.)</td>
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<td>April 26. – 28. (Lab April 29.)</td>
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<td></td>
<td>French</td>
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<td>Japanese</td>
<td>Jun. 27. – Jul 02. (Lab. July 01.)</td>
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<td>English</td>
<td>Aug. 23. – 25. (Lab Aug. 26.)</td>
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<td>Russian</td>
<td>Oct. 04. – 06. (Lab Oct. 07.)</td>
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<td>Service course (info pp. 20–21)</td>
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<td>Chocolate course Jakarta</td>
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<td>Indonesian</td>
<td>April 05. – 07.</td>
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<td>English</td>
<td>Sep. 06. – 08.</td>
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Registration deadline: 1 month before the course begins.
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<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Costs</th>
<th>Location</th>
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<td>CHF 3,350, EUR 2,750, USD 3,700</td>
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<td>Chocolate course CHF 3,600, EUR 2,950, USD 4,000 incl. Lab course CHF 4,800, EUR 3,950, USD 5,300</td>
<td>Uzwil (CH)</td>
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<td>Jakarta (IDN)</td>
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* Lab course on June 17th is in English.
Cocoa course basic (Freiberg, GER).

Target group:
This course is designed for production employees, product developers and technologists in the cocoa processing industry. The course is held over three days at our Cocoa Competence Center in Freiberg, Germany.

Course content:
The complete process and every individual step: fermentation, cleaning, debacterizing, roasting, grinding and powder production of cocoa for nibs and bean processing.

Notes:
• Course duration 3 days.
• Max. 10 persons per course.

Costs:
• CHF 3,350
  EUR 2,750
  USD 3,700

Online registration:
www.buhlergroup.com/training-cocoa
Cocoa course advanced (Freiberg, GER).

Target group:
This course is a follow up to the “basic” course and is tailored to product developers and operators with many years of professional experience. The course is held over two days at our Cocoa Competence Center in Freiberg, Germany.

Course content:
• Comparison of cocoa bean and cocoa nib roasting.
• Aims for “gourmet” roasting.
• Alkalizing recipe development (red and black).

Notes:
• Course duration 2 days.
• Max. 10 persons per course.

Costs:
• CHF 3,050
  EUR 2,500
  USD 3,350

Online registration:
www.buhlergroup.com/training-cocoa
Nuts course (Freiberg, GER).

Target group:
This course is aimed at production employees, product developers and technologists in the nut processing industry. The training takes place in the nuts competence center in Germany and contains theoretical sessions as well as practical exercises.

Course content:
The training focuses on nuts processing – all the way from unprocessed nuts to cleaning, roasting, blanching, optical sorting, pasteurization, grinding and the production of chopped nuts.

Notes:
• Course duration 2.5 days.
• Max. 10 persons per course.

Costs:
• CHF 3,050
  EUR 2,500
  USD 3,350

Online registration:
www.buhlergroup.com/training-nuts
Chocolate course (Uzwil, CH).

**Target group:**
This course is aimed at production employees, product developers and technologists in the chocolate manufacturing industry. The course contains practical exercises, explanations and demonstrations.

**Course content:**
The course offers a deeper look into the manufacture of chocolate masses. The influence of different raw materials on the process and the technological connections between the dosing, mixing, two-stage refining and conching process steps are explained and demonstrated in the pilot plant. Settings for the refiners and guiding the conching process will be discussed at length.

**Notes:**
- Course duration 3 days.
- Max. 18 persons per course.

**Costs:**
- CHF 3,600
- EUR 2,950
- USD 4,000

**Online registration:**
www.buhlergroup.com/training-chocolate
Laboratory course (Uzwil, CH).

**Target group:**
This course is recommended for product developers as well as laboratory and production staff. It covers analytical methods for cocoa and chocolate process control and product development. The course follows the chocolate course, and includes theory and a tour of the lab.

**Course content:**
Overview of laboratory work in chocolate production: determination of particle size by wet sieving and laser measurement, rheological measurements to determine viscosity and yield point, determination of fat content and characterization of its melting behavior, quantification of water by Karl Fischer titration, and NIR.

**Notes:**
- Course duration 1 day.
- Max. 10 persons per course.

**Costs chocolate course incl. lab course:**
- CHF 4,800
- EUR 3,950
- USD 5,300

**Online registration:**
www.buhlergroup.com/training-laboratory
Target group:
This course is aimed at production employees, product developers and technologists in the chocolate processing industry. The course is held at our Depositing and Moulding Competence Center in Germany.

Course content:
This course focuses on depositors and their applications: dosing of different masses, OneShot applications, shell forming, cold stamping method, pre-crystallization of chocolate, thermal technology and plant concepts. Service topics such as preventive reconditioning, machine maintenance and operation are covered.

Notes:
- Course duration 2.5 days.
- Max. 10 persons per course.
- Next courses in 2017.

Online registration:
www.buhlergroup.com/training-moulding
Service course (Uzwil, CH).

Target group:
This course is aimed at employees who work in technical maintenance in the chocolate industry. The course contains practical exercises, explanations and demonstrations.

Course content:
Setup and function of Bühler chocolate mixers, refiners and conches. Machine settings, maintenance and repair; hydraulics and pneumatics; preventive maintenance; roll wear and damage; Bühler machine retrofits.

Notes:
• Course duration 3 days.
• Max. 12 persons per course.

Costs:
• CHF 3,600
  EUR 2,950
  USD 4,000

Online registration:
www.buhlergroup.com/training-service
Chocolate course Jakarta (Tangerang, Indonesia).

Target group:
This course is aimed at production employees, product developers and technologists in the chocolate manufacturing industry. The course offers a deeper look into chocolate and compound processing starting from raw materials up to tempering and moulding.

Course content:
The course offers a broader perspective on chocolate and compound processing, starting from the raw materials up to tempering and moulding. Different processing options, such as mixing, roll refining, conching as well as bead milling are discussed. There will be theoretical sessions together with demonstrations on the three roll refiner, lab conche and beadmill (SmartChoc Plus).

Notes:
- Course duration 3 days.
- Max. 12 persons per course.
- The costs include training material and modules, certificate of attendance, lunch and refreshments but excluding 10% VAT, accommodation and transportation cost.

Registration:
Ms. Agnes Ervina
T +62 21 30448585
agnes.ervina@buhlergroup.com
Individual courses.

Well trained personnel guarantee you long-term success through high plant availability and efficiency as well as the best possible quality of end products. We can also provide customer on-site training on request.

Our specialists share the latest know-how in cocoa processing and chocolate manufacture (technology, operations and maintenance) with your staff. Topics to be covered will be individually adapted to your specific needs.

Further information:
Mr. Andreas Ziegler
T +41 71 955 27 42
andreas.ziegler@buhlergroup.com
Technology consulting.

To optimize your production it is recommended that a Bühler specialist evaluates your process installation. Your plant can be analyzed with a view toward suggestions for improvement and optimizing your current process.

Bühler pilot plants.

Our customer pilot plants are equipped with state-of-the-art machinery for cocoa processing and chocolate manufacture. We carry out pilot trials for you to test your good ideas long before you have to decide whether to purchase a plant. Please contact the Bühler Centers of Competence early enough to schedule an appointment.

**Trials for cocoa and nuts:**
Mr. Markus Windeisen
markus.windeisen@buhlergroup.com

**Trials for cocoa and chocolate:**
Mr. Andreas Ziegler
andreas.ziegler@buhlergroup.com

**Trials for depositing & moulding:**
Mr. Aleksander Madej
aleksander.madej@buhlergroup.com

**Trials for chocolate and compound in Jakarta:**
Ms. Agnes Ervina
agnes.ervina@buhlergroup.com
Arrival and departure.

Getting to the hotel:
- Individual arrival on the day before by plane, train or rental car.
- Hotel and directions will be provided in due time.
- There will be a group dinner at 7 p.m. in the hotel on the day of arrival.

Arrival by plane (continuation of journey to hotel by train or rental car):
Fly into Zürich, Düsseldorf, Cologne or Stuttgart, depending on the course location.

Entry regulations:
Please take note of the entry regulations for your country, particularly countries with visa requirements or for participants attending courses in two countries.
Registration needs to be received no later than one month before the course starts. Registrations will be processed in the order in which they are received. Hotel reservations for the duration of the course are made automatically with the registration. Course costs must be paid in full before the start of the course.

Registration.

Cocoa and chocolate courses at Bühler AG, (Uzwil, CH) and Bühler Barth GmbH (Freiberg, GER):
T +41 71 955 11 11
courses.sc@buhlergroup.com

Depositing & moulding courses at Bühler GmbH (Bergneustadt, GER):
Mrs. Anke Löttgen
T +49 2261 4091 29
anke.loettgen@buhlergroup.com