

The Academy of Sweets

PROGRAM

Chocolate Manufacturing: Intense Practical Course - Chocolate (Part I)

Date: 14.07.2025 -25.07.2025 Language: English Location: ZDS Solingen Course fee: 6.570,00 € Included services:

- Refreshments: snacks and drinks
- Lunch and dinner at ZDS refectory
- ZDS-Diploma "Chocolate/Confectionery"



Your instructor:

Guillermo Geschwindner

Dipl.-Ing. Food Technology, Technical Instructor Sugar Confectionery and Chocolate

Any Questions?

Please contact our seminar department:

Shinnes

T. +49 (0) 212 59 61 32 seminar@zds-solingen.de July 14-25 · Program



WEEK 1

Monday, July 14, 2025

09:30 Welcome

09.45 **Theory: Cocoa**

- Cocoa tree, types and history
- Harvest, fermentation and drying
- Quality criteria

11.30 Vertical ball mills for the production of chocolate, spreads, and compounds from dosification to finished products

Theory: Cocoa bean processing

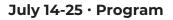
- Cleaning, Roasting (bean, nib, liquor)
- Breaking, Winnowing
- Grinding to liquor
- Cocoa butter and powder

13:00 **Lunch**

14:00 **Practice: Cocoa bean evaluation and processing**

- Evaluation of different cocoa beans
- \cdot Debacterisation
- Breaking and winnowing
- Nib roasting
- Pre- and fine grinding of Cocoa Nibs

17:30 Final discussion and end of the first day - Dinner





Tuesday, July 15, 2025

08:30	Theory: Raw materials: Cocoa butter, cocoa powder, sugar, milk ingredients, flavor
	Theory: Manufacturing of chocolate Recipes
	\cdot Manufacturing of chocolate (mixing process, refining process, conching process)
10:30	Theory: Milk ingredients for chocolate and fillings
	Theory: Manufacturing of chocolate (tbc) Recipes
	 Manufacturing of chocolate (mixing process, refining process, conching process)
13:00	Lunch
14:00	 Practice: Chocolate manufacturing Bühler group - Mixing, refining (5-roll refining), conching - Milk chocolate McIntyre Refiner/Conche - Dark chocolate Netzsch Rumba system - White chocolate Packint - Ball mill - Milk chocolate
17:15	Final discussion and end of the day - Dinner

Wednesday, July 16, 2025

08:30	Practice: Liquification of chocolate and finishing chocolates
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- 09:30 Theory and practice: Netzsch Rumba system
- 13:00 Lunch
- 14:00 Practice: Chocolate tempering (manual tempering, seeding method)

Practice: Netzsch Rumba system

17:15 Final discussion and end of the day - Dinner

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Thursday, July 17, 2025

- Company visits -

Friday, July 18, 2025

08:30 Practical exam of course topics - Part 1

09:30 Theory: Moulding technologies

- Classic shell moulding
- Book moulding
- Cold stamping
- Hollow figures
- \cdot One shot depositing

13:00 **Lunch**

In the afternoon visit Schloss Burg, Solingen

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WEEK 2

Monday, July 21, 2025

08:30	Theory: How to Measure Viscosity and Yield Point of Chocolate
11:00	Flow properties of chocolate - Practical application PGPR
13:00	Lunch
14:00	Theory: Particle Analysis Technology
15:00	Practice: Particle Analysis Technology
17:15	Final discussion and end of the day - dinner

Tuesday, July 22, 2025

- Company visit -

Wednesday, July 23, 2025

08:30 Theory: Sensorial evaluation of cocoa beans and cocoa mass (part 1)

Theory: Crystallisation of cocoa butter

- $\cdot\,$ Composition of cocoa butter
- Temperindex
- Multitherm Bühler Crystallization Index
- · DSC

Practice: Crystallization of cocoa butter

- Temperindex
- Multitherm Bühler Crystallization Index

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13:00 **Lunch**

14:00 Practice: Crystallization of cocoa butter
Temperindex
Multitherm - Bühler Crystallization Index

Theory: Fat bloom and sugar bloom

17:15 Final discussion and end of the day - Dinner

Thursday, July 24, 2025

08:30	Theory: Sensorial evaluation of chocolate (part 2)
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- 13:00 Lunch
- 14:00 Practice: Sugar crust liquorWith alcoholWithout alcohol
- 17:15 Final discussion and end of the day Dinner

Friday, July 25, 2025

08:30 Practical exam of course topics - Part 2

Theory: Fondant raw mass and fillings

Practice: Fondant raw mass production

Practice: Fondant

- · Fondant deposited in starch or moulds
- Fondant as filling
- \cdot Fondant for extrusion

Theory: Chocolate panning

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Practice: Fondant

- Fondant deposited in starch or moulds
- \cdot Fondant as filling
- \cdot Fondant for extrusion

Theory: Chocolate panning

Theory: Chocolate panning

- \cdot Precoating
- Engrossing
- Smoothering
- Polishing
- Sealing

13:00 Lunch

Departure Solingen - Visit Chocolate Museum in Cologne

- subject to changes -