

Cake Extended

Balancing, mixing, egg replacement and shelf life

Dates	6–9 September 2027 (week 36) · optional 5th day 10 September
Times	Monday–Thursday, 08.30–17.00/17.30 CET · optional 5th day (Friday) until 16.00
Location	Bakery Academy Application Centre, Het Aanleg 18D, 9951 NN Winsum, the Netherlands
Level	Intermediate (follow-up to Cake Introduction)
For	R&D, NPD, application and production professionals
Group size	Maximum 8 participants
Included	Course, practice materials, lunch on all course days, booklet with presentations, formulations and theory, and a Bakery Academy certificate.
Before the course	Before the course: online pre-module (cake basics). Optional: bring a recipe in which you want to reduce or replace egg.

Course programme

Shaded rows are breaks. Practical sessions are shown in medium weight.

Monday 6 September

Day 1 · Balancing & mixing

08.30	Welcome and introductions	
09.00	Cake classification and recipe balancing: ratio rules and high-ratio cakes	Theory
10.00	Coffee break	
10.15	Mixing methods: creaming, sugar-batter, flour-batter, all-in, two-stage, foam and continuous aeration · specific gravity	Theory
12.30	Lunch	
13.30	**Practice: one recipe, 3–4 mixing methods · specific gravity, volume and crumb**	Practice
17.00	Result discussion	Discussion

Tuesday 7 September

Day 2 · Functional ingredients

08.30	Emulsifiers: cake gel, mono- and diglycerides, PGE, polysorbate	Theory
09.30	Leavening systems and reaction rate (SAPP types)	Theory
10.15	Coffee break	
10.30	Hydrocolloids for moisture retention	Theory
12.30	Lunch	
13.30	**Practice: emulsifier series · leavening comparison (timing and volume)**	Practice
17.00	Result discussion	Discussion

Wednesday 8 September

Day 3 · Module egg reduction & replacement

08.30	Egg functions per cake type: structure, emulsification, aeration, moisture, colour and flavour	Theory
09.30	Replacement routes: dairy and whey proteins, plant proteins, aquafaba, starches and hydrocolloids, emulsifiers, enzymes, commercial egg replacers	Theory
10.15	Coffee break	
10.30	Off-notes, allergens, labelling and cost · fat reduction	Theory
12.30	Lunch	
13.30	**Practice: pound cake and muffin with 0 / 25 / 50 / 100% egg replacement via two routes**	Practice
16.15	Workshop: egg function map for your own products	Discussion
17.00	Result discussion	Discussion

Thursday 9 September

Day 4 · Baking, defects, shelf life & foam cakes

08.30	Baking process and oven profiles · defect diagnosis: peaking, collapse, tunnelling, crust and colour	Theory
10.00	Coffee break	
10.15	Cake shelf life: water activity, mould, staling, cake enzymes and humectants	Theory
11.15	From batter to foam: sponge and Swiss roll (warm versus cold method)	Theory
12.30	Lunch	
13.30	**Practice: sponge and Swiss roll · defect clinic · shelf-life measurements**	Practice
16.30	Evaluation and certificates	
17.00	End of course	

Friday 10 September (optional — bookable separately)

Optional day 5 · Foam cakes or your own product

08.30	Foam cake deep-dive: angel food and chiffon · or analysis of your own products	Theory
10.00	Coffee break	
10.15	**Practice: foam cakes or own-product trials**	Practice
12.30	Lunch	
13.30	**Practice continued · evaluation and next steps**	Practice
16.00	End	