

Course Schedule SCIN381 Aroma and Flavor Science for Innovation and Bio-Business

Morning session 10:00-12:00 hr, Afternoon session 13:00-16:00 hr

SC1-157 (Lecture Room for on-site), Online, Lab

Week	Topic (Morning session) 10:00-12:00 hr	Instructor	Topic (Afternoon session) 13:00-16:00 hr	Instructor
1 Jan 10, 2022	Lecture <ul style="list-style-type: none"> ● Application and innovation of flavor and fragrance: From antiquity to modern industries ● Perceptions of aroma and flavor 	Sittiwat	Laboratory <ul style="list-style-type: none"> ● Laboratory orientation ● Assignment briefing 	Sittiwat
2 Jan 17, 2022	Lecture <ul style="list-style-type: none"> ● Neurosciences and molecular sensory of aroma and flavor ● Anosmia and its pathobiology 	Patompon	Laboratory <ul style="list-style-type: none"> ● Perceptions of aroma and flavor ● Threshold 	Sittiwat Napason, Wannisa
3 Jan 24, 2022	Lecture <ul style="list-style-type: none"> ● Genesis of flavors in foods ● Flavor interactions with food components and their release 	Sittiwat	Laboratory <ul style="list-style-type: none"> ● The Maillard reaction ● Lipid oxidation ● Flavor formation in vegetables 	Sittiwat Napason, Wannisa
4 Jan 31, 2022	Lecture <ul style="list-style-type: none"> ● Application of flavors in foods 1 	Siriyupa	Laboratory <ul style="list-style-type: none"> ● Application of flavors in foods 1 	Siriyupa, Napason, Wannisa
5 Feb 7, 2022	Lecture <ul style="list-style-type: none"> ● Application of flavors in foods 2 	Siriyupa	Laboratory <ul style="list-style-type: none"> ● Application of flavors in foods 2 	Siriyupa, Napason, Wannisa
6 Feb 14, 2022	Lecture <ul style="list-style-type: none"> ● Flavoring ingredients: manufacture and their stability ● Flavor creation and compounding 	Invited instructor	Laboratory <ul style="list-style-type: none"> ● Flavor compounding 	Sittiwat Napason, Wannisa
7 Feb 21, 2022	Lecture <ul style="list-style-type: none"> ● Psychological basis of perfumery ● Application of fragrances in cosmetics and personal care products 	Sittiwat	Lecture <ul style="list-style-type: none"> ● Aroma and scent: Raw material plants 	Napassorn (BT)

Midterm examination (Feb 28-Mar 4, 2022)				
8 Mar 7, 2022	Lecture ● Aroma and scent: Chemistry, manufacture and their stability	Sittthivut	Laboratory ● Steam distillations and extraction ● Sniffing perfumes	Sittiwat, Napason, Wannisa
9 Mar 14, 2022	Lecture ● Phenomena of mass transfer	Thitisilp	Laboratory ● Phenomena of mass transfer	Thitisilp, Napason, Wannisa
10 Mar 21, 2022	Lecture ● Mass transfer of chemical compounds related to aroma and flavor during application and in finished goods	Thitisilp	Laboratory ● Mass transfer of chemical compounds related to aroma and flavor during application and in finished goods	Thitisilp, Napason, Wannisa
11 Mar 28, 2022	Lecture ● Packaging materials enhancing stability of aroma and flavor in finished goods	Siriyupa	Laboratory ● Packaging materials enhancing stability of aroma and flavor in finished goods	Siriyupa, Napason, Wannisa
12 Apr 4, 2022	Lecture ● Flavor/aroma profiling: Instrumental and sensory descriptive analyses	Sittiwat	Laboratory (onsite) ● Sensory descriptive analysis	Sittiwat, Napason, Wannisa
13 Apr 11, 2022	Lecture ● Aromatherapy	Nattinee	Laboratory (onsite) ● Instrumental analysis for volatile odor-active compounds	Sittiwat, Napason, Wannisa
14 Apr 18, 2022	Lecture ● Regulation for industrial application in flavor and fragrance	Invited instructor	● Wrap up ● Presentation for assignment	Sittiwat
Final examination (May 2-13, 2022)				