

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

Week	Topic (Morning session) 10:00-12:00 hr	Instructor	Topic (Afternoon session) 13:00-16:00 hr	Instructor
1 Jan 16, 2023	Lecture <ul style="list-style-type: none"> ● Application and innovation of flavor and fragrance: From antiquity to modern industries ● Perceptions of aroma and flavor 	B400/Sittiwat	Laboratory <ul style="list-style-type: none"> ● Laboratory orientation ● Recognition test ● Assignment briefing 	B400/Sittiwat
2 Jan 23, 2023	Lecture <ul style="list-style-type: none"> ● Neurosciences and molecular sensory of aroma and flavor ● Anosmia and its pathobiology 	B400/ Patompon	Laboratory <ul style="list-style-type: none"> ● Perceptions of aroma and flavor ● Threshold 	B400/Sittiwat (Napason, Wannisa)
3 Jan 30, 2023	Lecture <ul style="list-style-type: none"> ● Genesis of flavors in foods ● Flavor interactions with food components and their release 	B400/Sittiwat	Laboratory <ul style="list-style-type: none"> ● The Maillard reaction ● Lipid oxidation ● Flavor formation in vegetables 	BT/Sittiwat (Napason, Wannisa)
4 Feb 6, 2023	Lecture <ul style="list-style-type: none"> ● Application of flavors in foods 1 	Salaya/ Siryupa	Laboratory <ul style="list-style-type: none"> ● Application of flavors in foods 1 	Salaya/ Siryupa,Napa son, Wannisa
5 Feb 13, 2023	Lecture <ul style="list-style-type: none"> ● Application of flavors in foods 2 	Salaya/ Siryupa	Laboratory <ul style="list-style-type: none"> ● Application of flavors in foods 2 	Salaya/ Siryupa,Napa son, Wannisa
6 Feb 20, 2023	Lecture <ul style="list-style-type: none"> ● Phenomena of mass transfer 	Salaya/ Thitisilp	Laboratory <ul style="list-style-type: none"> ● Phenomena of mass transfer 	Salaya/ Thitisilp,Napa son, Wannisa

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7 Feb 27, 2023	Lecture <ul style="list-style-type: none"> Mass transfer of chemical compounds related to aroma and flavor during application and in finished goods 	Salaya/ Thitisilp	Laboratory <ul style="list-style-type: none"> Mass transfer of chemical compounds related to aroma and flavor during application and in finished goods 	Salaya/ Thitisilp, Napa son, Wannisa
Midterm examination (Mar 7 - Mar 10, 2023)				
8 Mar 13, 2023	Lecture <ul style="list-style-type: none"> Flavoring ingredients: manufacture and their stability Flavor creation and compounding 	B400/Sittiwat or invited instructor	Laboratory <ul style="list-style-type: none"> Flavor compounding 	BT/Sittiwat, Napason, Wannisa
9 Mar 20, 2023	Lecture <ul style="list-style-type: none"> Aroma and scent: Raw material plants 	B400/ Napassorn (BT)	Laboratory <ul style="list-style-type: none"> Steam distillations and extraction 	BT/Sittiwat, Napason, Wannisa
10 Mar 27, 2023	Lecture <ul style="list-style-type: none"> Aroma and scent: Chemistry, manufacture and their stability 	B400/Sitthivut	Lecture/Demonstration <ul style="list-style-type: none"> Psychological basis of perfumery Application of fragrances in cosmetics and personal care products Sniffing perfumes 	B400/Sittiwat or invited instructor
11 April 3, 2023	Lecture <ul style="list-style-type: none"> Aromatherapy 	B400/Nattinee	Lecture/Demonstration <ul style="list-style-type: none"> Flavor/aroma profiling: sensory descriptive analysis 	B400/Sittiwat or invited instructor
12 Apr 10, 2023	Lecture <ul style="list-style-type: none"> Flavor/aroma profiling: Instrumental analysis 	B400/Sittiwat	Demonstration <ul style="list-style-type: none"> Flavor/aroma profiling: Instrumental analysis 	BT/Sittiwat, Napason, Wannisa

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13 Apr 17, 2023	Lecture <ul style="list-style-type: none"> ● Packaging materials enhancing stability of aroma and flavor in finished goods 	Salaya/Siriyupa	Laboratory <ul style="list-style-type: none"> ● Packaging materials enhancing stability of aroma and flavor in finished goods 	Salaya/ Siriyupa,Napa son, Wannisa
14 Apr 24, 2023	Lecture <ul style="list-style-type: none"> ● Regulation for industrial application in flavor and fragrance 	B400/Sittiwat or Invited instructor	<ul style="list-style-type: none"> ● Wrap up ● Presentation for assignment 	B400/Sittiwat
Final examination (May 1-12, 2023)				