

Course Schedule (Ver.1)

SCIN 381 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 10, 2025	<b>Lecture</b> <ul style="list-style-type: none"> <li>● Application and innovation of flavor and fragrance: From antiquity to modern industries</li> <li>● Perceptions of aroma and flavor</li> <li>● Assignment briefing</li> </ul>	B400/Sittiwat	<b>Laboratory</b> <ul style="list-style-type: none"> <li>● Laboratory orientation</li> <li>● Recognition test</li> <li>● Threshold</li> <li>● Perceptions of aroma and flavor</li> </ul>	NX00/Sittiwat
2 Jan 17, 2025	<b>Lecture</b> <ul style="list-style-type: none"> <li>● Genesis of flavors in foods</li> <li>● Flavor-food interactions and their release</li> </ul>	B400/Sittiwat	<b>Lecture</b> <ul style="list-style-type: none"> <li>● Sensing of flavor and fragrance (odor and taste)</li> </ul>	B400/ Napassorn (BT)
3 Jan 24, 2025	<b>Laboratory (9:00-12:00 hr)</b> <ul style="list-style-type: none"> <li>● Application of flavors in foods 1</li> </ul>	Salaya/ Siryupa	<b>Laboratory (13:00-16:00 hr)</b> <ul style="list-style-type: none"> <li>● Packaging materials enhancing stability of aroma and flavor in finished goods</li> </ul>	Salaya/ Siryupa
4 Jan 31, 2025	<b>Lecture (10:00-12:00 hr)</b> <ul style="list-style-type: none"> <li>● Phenomena of mass transfer</li> </ul>	Salaya/ Thitisilp	<b>Lecture (13:00-15:00 hr)</b> <ul style="list-style-type: none"> <li>● Mass transfer of chemical compounds related to aroma and flavor during application and in finished goods</li> </ul>	Salaya/ Thitisilp
5 Feb 14, 2025	<b>Laboratory (9:00-12:00 hr)</b> <ul style="list-style-type: none"> <li>● Phenomena of mass transfer</li> </ul>	Salaya/ Thitisilp	<b>Laboratory (13:00-16:00 hr)</b>	Salaya/ Thitisilp

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			<ul style="list-style-type: none"> <li>Mass transfer of chemical compounds related to aroma and flavor during application and in finished goods</li> </ul>	
6 Feb 21, 2025	<b>Lecture (10:00-11:00 hr)</b> Application of flavors in foods 1	Salaya/ Siriyaupa	<b>Lecture (11:00-13:00 hr)</b> <ul style="list-style-type: none"> <li>Role of packaging in flavor stability and retention</li> <li>Case study: Flavors in foods</li> </ul>	Salaya/ Siriyaupa
7 Feb 28, 2025	<b>Lecture/Demo</b> <ul style="list-style-type: none"> <li>Psychological basis of perfumery</li> <li>Application of fragrances in cosmetics and personal care products</li> </ul> Sniffing perfume	B400/Sittiwat	<b>Laboratory</b> <ul style="list-style-type: none"> <li>The Maillard reaction</li> <li>Lipid oxidation</li> <li>Flavor formation in vegetables</li> </ul> Flavor creation and compounding	NX00/Sittiwat
<b>Midterm examination (Mar 3 - Mar 7, 2025)</b>				
8 Mar 7, 2025	<b>Lecture</b> <ul style="list-style-type: none"> <li>Flavor/aroma profiling: Instrumental analysis</li> </ul>	B400/Sittiwat	<b>Lecture/Demo</b> <ul style="list-style-type: none"> <li>Flavor/aroma profiling: sensory descriptive analysis</li> </ul>	B400/Sittiwat
9 Mar 14, 2025	<b>Lecture</b> <ul style="list-style-type: none"> <li>Aroma and scent: Raw material plants</li> </ul>	B400/ Napassorn (BT)	<b>Laboratory</b> <ul style="list-style-type: none"> <li>Flavor/aroma profiling: Instrumental analysis</li> </ul>	BT/Sittiwat
10 Mar 21, 2025	<b>Lecture</b> <ul style="list-style-type: none"> <li>Aroma and scent: Chemistry, manufacture and their stability</li> </ul>	B400/Sitthivut		

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11 Mar 28, 2025	Lecture <ul style="list-style-type: none"> <li>● Aromatherapy</li> </ul>	B400/Nattinee	Laboratory <ul style="list-style-type: none"> <li>● Steam distillations and extraction</li> </ul>	NX00/Sittiwat
12 Apr 18, 2025	Lecture <ul style="list-style-type: none"> <li>● Regulation for industrial application in flavor and fragrance</li> </ul>	B400/Sittiwat	Presentation for the assignment	B400/Sittiwat
13 Apr 25, 2025	Presentation for the assignment	B400/Sittiwat	Wrap-up	B400/Sittiwat
Final examination (April 28 - May 9, 2025)				