

Kode Mata Kuliah	KI5251 / 4 SKS	
Penyelenggara	205 - Kimia / FMIPA	
Kategori	Kuliah	
	Bahasa Indonesia	English
Nama Mata Kuliah	Kimia Organik Bahan Alam Lanjut	Advanced Organic Chemistry of Natural Products
Bahan Kajian	<ol style="list-style-type: none"> 1. Wawasan dan aspek penting dalam Kimia Bahan Alam 2. Keanekaragaman kerangka senyawa alam 3. Monoterpen: iridoid dan sekologanin 4. Sesquiterpen, diterpene, sesterpen, dan triterpen 5. Alkaloid bisbenzilisokuinolin dan turunan triptopan 6. Stilben dan lignan 7. Endofitik 8. Aplikasi kultur jaringan tumbuhan pada kimia bahan alam 9. Rekayasa biologis untuk produksi metabolit sekunder 10. Aplikasi metabolomik pada kimia bahan alam 	<ol style="list-style-type: none"> 1. Insights and Key Aspects in Natural Product Chemistry 2. Diversity of Natural Compound Frameworks 3. Monoterpenes: Iridoid and Secologanin 4. Sesquiterpenes, Diterpenes, Sesterterpenes, and Triterpenes 5. Bisbenzylisoquinoline Alkaloids and Tryptophan Derivatives 6. Stilbenes and Lignans 7. Endophytic 8. Application of Plant Tissue Culture in Natural Product Chemistry 9. Biological Engineering for the Production of Secondary Metabolites 10. Application of Metabolomics in Natural Product Chemistry
Capaian Pembelajaran Mata Kuliah (CPMK)	<ol style="list-style-type: none"> 1. Memahami struktur, sifat, dan biosintesis iridoid, sekologanin, sesquiterpen, diterpene, sesterpen, 	<ol style="list-style-type: none"> 1. Understand the structure, properties, and biosynthesis of iridoid, secologanin, sesquiterpenes, diterpenes, sesterterpenes,

	<p>triterpene, lignan, stilbene, alkaloid bisbenzilisokuinolin dan alkaloid turunan triptopan</p> <ol style="list-style-type: none"> Memahami reaksi-reaksi yang menyebabkan keberagaman struktur senyawa alam Memiliki pemahaman tentang endofitik, kultur jaringan tumbuhan, rekayasa biologis, dan metabolomik, serta aplikasinya dalam pengembangan kimia bahan alam. 	<p>triterpenes, lignans, stilbenes, bisbenzylisoquinoline alkaloids, and tryptophan-derived alkaloids.</p> <ol style="list-style-type: none"> Understand the reactions that lead to the structural diversity of natural compounds. Gain knowledge about endophytic interactions, plant tissue culture, biological engineering, and metabolomics, and their applications in the development of natural product chemistry.
Metode Pembelajaran	Ceramah Tutorial Diskusi	Lectures Tutorials Discussions
Modalitas Pembelajaran	Luring Sinkron Daring Asinkron	Synchronous Offline Asynchronous Online
Jenis Nilai	ABCDE	
Metode Penilaian	Tugas, UTS dan UAS Bobot penilaian: Ujian 1: 30% Ujian 2: 30% Ujian 3: 30% Tugas : 10%	Assignments Midterm Exam 1: 30% Midterm Exam 2: 30% Midterm Exam 3: 30% Assignments: 10%

Catatan Tambahan