

# 生物信息学（留） 0141703

Fall, 2025

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Week	Meeting date	Lectures	Algorithms
1	20 Nov	Lesson 1 Intro Sequence alignment (HWK1, 10%)	Dynamic programming,
2	27 Nov	Lesson 2 Database search Intro to phylogenetics	BLAST
3	4 Dec	Lesson 3 Phylogenetic_methods, Molecular evolution,	UPGMA, NJ, Maximum Likelihood
4	11 Dec	Lesson 4 Tree reconstruction, Tree support and systematic errors Phylogenomics (HWK2, 10%)	Bayesian Approach, MCMC, Bootstrap
5	18 Dec	Lesson 5 Pattern matching, Profiling	Hidden Markov Model

6	25 Dec	Lesson 6 NGS data assembling, Read mapping (HWK3, 10%)	Suffix tree, De Bruijn Graph
7	1 Jan	Lesson 7 Artificial neural networks, AI applications	Neural network
8	8 Jan	Lesson 8. Final exam 70%	Close book

N.B. we will meet every Thursday from 18:00 to 21:20 in room 2-101. The lecture materials can be found at <http://www.lmse.org/learning/bioinformatics.html>.