

PPG-BIOLOGIA VEGETAL

Disciplinas do Período de Férias de Inverno/2025

NT265 - TÓPICOS ESPECIAIS EM BIOLOGIA VEGETAL III - TURMA RSO

Tema: Principles and practical skills in environmental genomics using Oxford Nanopore Technologies sequencing

Créditos: 4

Horário: Segundas-feiras, das 8:00 às 18: e de Sextas-feiras, das 8:00 às 18:00

Local/Sala: **Laboratório de Taxonomia vegetal**

Período de oferecimento: Férias de Inverno (de acordo com o cronograma)

Vagas: 14

Mínimo de alunos: 2

Responsável: Rafael Silva Oliveira - rafaelso@unicamp.br

Colaboradora: Samantha Koehler - samk@unicamp.br

Estudantes especiais: aceita - solicitar autorização do professor responsável e seguir [instruções](#)

CRONOGRAMA:

	May 6 Tue	May 7 Wed	May 8 Thu	May 9 Fri	May 10 Sat	May 11 Sun	May 12 Mon	May 13 Tue	May 14 Wed
09:00 - 12:00	Intros, why and how <i>Room: IB10</i>	Library Prep Theory <i>Room: IB10</i>	Clean up and pooling <i>Room: Lab</i>	Flowcell Theory Practice loading <i>Room: Lab</i>	Sequencing (All Day) <i>No class</i>	Sequencing (All Day) <i>No class</i>	Bioinformatic theory+CMD line <i>Room: IB10</i>	Diversity. Relative Abundance. Ordination. Functionality <i>Room: IB8</i>	Presentations How to apply methods <i>Room: IB10</i>
12:00 - 14:00	Lunch	Lunch	Lunch	Lunch			Lunch	Lunch	Lunch
13:00 - 18:00	Pipette practice, dilution series Set up 1st PCR (16-17h) <i>Room: Lab</i>	Cleanup and Qubit Set up 2st PCR <i>Room: Lab</i>	End Prep Adapter Ligation <i>Room: Lab</i>	Flow cell Loading <i>Room: Lab</i>			Data QA/QC - Epi2Me <i>Room: IB10</i>	Discussion session <i>Room: IB8</i>	Discussion session <i>Room: IB10</i>

PROGRAMA:

- Understand the principles of applying genomic techniques in the analysis of environmental samples, including:
 - Why choose genomic techniques for investigating biodiversity?
 - Available methodologies and their strengths/weaknesses
- Gain practical experience of laboratory procedures involved in library preparation and sequencing using Oxford Nanopore Technologies (ONT)
- Introduce analysis methods and discuss application of methods to research questions

BIBLIOGRAFIA: A ser disponibilizada no período do oferecimento da disciplina