PROGRAMA DA DISCIPLINA/TURMA 3ZA PERÍODO: 2026.1

MAT2725	**TÓPICOS DE TOPOLOGIA** CARGA HORÁRIA TOTAL: 45 HORAS Nº CRÉDITOS: 3 PROFESSOR: Sergei Burkin
TÍTULO DA DISCIPLINA:	TOPICOS DE TOPOLOGIA ALGÉBRICA

OBJETIVOS DA DISCIPLINA/TURMA	This course will be a mix of topics, some of which will be presented by participants. The difficulty will vary. For each topic we will try to include both th most basic statements and the current advanced developments. The topics ar more closely related to each other than one might initially assume.
EMENTA DA DISCIPLINA	Mix of topics,
PRÉ-REQUISITOS DA DISCIPLINA	The minimal prerequisite is Algebraic Topology 1 (Homology and Cohomology). Some familiarity with spectral sequences and with basic facts of homotopy theory of spaces will be helpful.
PROGRAMA DA DISCIPLINA/TURMA	1. Characteristic classes. For details of what we plan to cover see [1] . To pass this course it is enough to be able to solve the exercises from [1]. 2. Stable infinity-categories. This part is for those who systematically encounter triangulated categories and/or generalized cohomology theories / spectra. Chapter 1 of Higher Algebra by Lurie. 3. Poincare duality: from basics to Poincare duality spaces, a proof via Atiyah duality and Thom isomorphism, Poincare-Koszul duality, six-functor formalisms. 4. Cohomology operations. 5. Spectra. Filtered spectra. Adams-Novikov spectral sequence. Orientations in generalized cohomology.
AVALIAÇÃO DA DISCIPLINA	Critério 12 Média = G1
DETALHAMENTO AVALIAÇÃO DA DISCIPLINA	
BIBLIOGRAFIA BÁSICA DA DISCIPLINA	[1] Arun Debray, Characteristic classes.
BIBLIOGRAFIA COMPLEMENTAR DA DISCIPLINA	

BIBLIOGRAFIA DE
PESQUISA DA DISCIPLINA