

Sample syllabus for a one-semester topology course

based on

Topology Now!

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<i>day</i>	<i>section</i>
1	1.1 Equivalence
2	1.2 Bijections
3	1.3 Continuous Functions
4	1.3 Continuous Functions
5	1.4 Topological Equivalence
6	1.5 Topological Invariants
7	1.5 Topological Invariants
8	1.6 Isotopy
9	2.1 Knots, Links, and Equivalences
10	2.2 Knot Diagrams
11	2.3 Reidemeister Moves
12	2.3 Reidemeister Moves
13	2.4 Colorings
14	2.4 Colorings
15	2.5 The Alexander Polynomial (definition and examples only)
16	2.6 Skein Relations
17	2.6 Skein Relations
18	2.7 The Jones Polynomial
19	2.7 The Jones Polynomial
20	review
21	exam
22	3.1 Definitions and Examples of Surfaces
23	3.2 Cut-and-Paste Techniques
24	3.3 The Euler Characteristic and Orientability
25	3.3 The Euler Characteristic and Orientability
26	3.4 Classification of Surfaces
27	3.4 Classification of Surfaces
28	3.5 Surfaces Bounded by Knots
29	4.1 Examples of Three-Dimensional Manifolds
30	4.2 The Euler Characteristic
31	4.3 Gluing Polyhedral Solids
32	4.3 Gluing Polyhedral Solids
33	6.1 Deformations with Singularities
34	6.2 Algebraic Properties
35	6.3 Invariance of the Fundamental Group
36	6.4 The Sphere and the Circle
37	6.6 The Poincaré Conjecture
38	review
39	exam
40	7.1 Metric Spaces
41	7.1 Metric Spaces
42	7.2 Topological Spaces
43	7.2 Topological Spaces
44	7.3 Connectedness
45	7.4 Compactness
46	7.4 Compactness
47	7.5 Quotient Spaces
48	review
49	exam