Kommentare zur Topologie II

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Week 1 — CW complexes and homology computations — due by: 26.04.2017

The text of exercise 1.1 has been changed. Now, one has to show that the set $[X, Y]$ of homotopy classes of maps $f \colon X \to Y$ is at most countably infinite (even if X and Y are finite).

Week 2 — Simplicial schemes — due by: 03.05.2017

The text of exercise 2.1 has been changed. Now part b) asks to find a simplicial structure on the product of the geometric realisations of two simplicial schemes. For those who are interested in the structure of the product of simplicial schemes in the category of simplicial schemes, we have added a bonus exercise, called 2.1**.

Week 5 — Euler Characteristic again and cohomology — due by: 24.5.2017

The text of exercise 5.2 has been changed. Now, we require that $\Psi(\mathbb{S}^0) = 2$, where $\mathbb{S}^0 = \{\pm 1\} \subset \mathbb{R}^1$ is the sphere of dimension zero.

Week 10 — Universal Coefficient Theorems — due by: 5.7.2017

Text of exercise 10.3.3 changed. Now, we require that $\mathbb{G}$ is finitely generated.

Week 12 — Homology cross product and the Künneth theorem again — due by: 19.7.2017

Text of exercise 12.4.1 has been corrected. The forgetful functor is right adjoint to the free-module functor.
Text of exercise 12.4.3 has been corrected. One has to show that the sequence is exact at B if the induced sequence is exact. The converse is not always true in general.