Mini-course on Higgs Bundles

I. The original sources:

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2. S. Donaldson, Twisted harmonic maps and the self-duality equations. Proc. London Math. Soc. 55 (1987), 127-131.
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6. C. Simpson, Systems of Hodge bundles and uniformization. Harvard thesis,1987.
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II. Surveys:

1. S.B. Bradlow, O. García-Prada and P.B. Gothen, Maximal surface group representations in isometry groups of classical hermitian symmetric spaces , Geometriae Dedicata 122 (2006), 185–213.
2. S. B. Bradlow, O. García-Prada, and P. B. Gothen, *What is a Higgs bundle?*, Notices of the AMS **54**, no. 8 (2007), 980-981.
3. O. García-Prada, Higgs bundles and surface group representations, in *Moduli Spaces and Vector Bundles*, LMS Lecture Notes Series **359** (2009) 265—310
4. P. B. Gothen, *Higgs bundles and the real symplectic group*, Proceedings of the XIX International Fall Workshop on Geometry and Physics, AIP Conf. Proc. **1360** (2011), 39-50. doi:10.1063/1.3599126. arXiv:1102.4175 [math.DG].

III. Lectures notes and websites:

1. S. Bradlow. Lecture notes from a 1998 course on vector bundles:
   http://cwillett.imathas.com/bundles/
2. S. Bradlow, B. Goldman, O. García-Prada and A. Wienhard, Backround notes prepared for a workshop on Surface Group Representations at the American Institute of Mathematics (Palo Alto, California) in 2008
   http://www.aimath.org/WWN/surfacegroups/aim_intro_final.pdf
3. R. Wentworth. Higgs bundles and local systems on Riemann surfaces. Lecture notes from the Third International School on Geometry and Physics at the Centre de Recerca Matematica in Barcelona, March 26-30, 2012
   http://www2.math.umd.edu/~raw/papers/barcelona.pdf
4. 2011 Talbot workshop on Non-Abelian Hodge Theory
   http://math.mit.edu/conferences/talbot/index.php?year=2011&sub=links