18.727: *Topics in algebraic geometry*

Lars Hesselholt, MW 3-4:30, 4-149.

The course introduces schemes and cohomology of sheaves. Topics include smooth morphisms, sheaves of differentials, the spectral sequence from Cech to derived functor cohomology, application of the general theory to curves and surfaces.

References

[1] R. Hartshorne, *Algebraic geometry*, Graduate Texts in Mathematics, vol. 52, Springer-Verlag, 1977.
[2] D. Mumford, *The red book of varieties and schemes*, Lecture Notes in Mathematics, vol. 1358, Springer-Verlag, 1988.