This graduate course will provide a survey into some of the basic methods and recent advances in continuous-time macroeconomics. It will begin with a brief introduction into continuous-time stochastic processes and Ito Calculus, optimization with Hamiltonians and Hamilton-Jacobi-Bellman Equations, and Kolmogorov Backward and Forward Equations. We will then explore examples of continuous-time macroeconomic models through the lens of different research topics, such as growth, firm size, risk-sharing, credit frictions, and financial intermediation. If there is time at the end of the course, we will cover several advanced topics and techniques, such as Mean Field Games, robustness, and filtering.