Econ 362, Macroeconomic Theory

Problem set on job finding, job separation and the equilibrium unemployment rate.

As in the model presented in class,
U is the total number of unemployed people.
E is the total number of employed people.
The labor force $L = U + E$. The number of people in the labor force is fixed.
The unemployment rate is $u = U/L$.
The number of people losing jobs in a period is sE where s is a fraction (between zero and one).

Unlike the model presented in class,
the number of unemployed people finding jobs in a period is $fU - gE$ where f and g are both fractions (between zero and one).

Derive the long-run equilibrium value of the unemployment rate u. Show your work!