TECHNOLOGY IN THE GLOBAL ECONOMY
Reading list

READINGS: The principal textbook used in this course is Vernon W. Ruttan, Technology, Growth, and Development (2001). The book is available for purchase in the bookstore and also available at the Reserve Desk. In addition, various articles and book excerpts, listed below are available through ERES, the Brandeis Library’s electronic reserve system on the World Wide Web. See handouts from the Library on how and where to access ERES. The password for this course is “technology”.

REQUIREMENTS: This course includes the following requirements: Three in-class exams [September 24, October 25, and December 3], each of which counts for 20% of the course grade, five 2-3 page “essays”, which together count for 25% of the course grade, and class participation, including an occasional take-home problem set, which counts for the final 15% of the course grade. The journal entries are intended to convey critical perspectives on readings and in-class discussions. An entry, for example, may contrast two readings. Each entry should also incorporate at least one outside reading, i.e. anything ranging from a relevant newspaper article to a journal article.

Also:

You are expected to be honest in all of your academic work. The University policy on academic honesty is distributed annually as section 5 of the Rights and Responsibilities handbook. Instances of alleged dishonesty will be forwarded to the Office of Campus Life for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University. If you have any questions about my expectations, please ask.

If you are a student with a documented disability on record at Brandeis University, and if you wish to request a reasonable accommodation for this class, please see me immediately. Please keep in mind that reasonable accommodations are not provided retroactively.

Course reading:

I. INTRODUCTION AND HISTORICAL PERSPECTIVES ON TECHNOLOGICAL PROGRESS


II. MEASURES OF TECHNICAL CHANGE AND MODELS OF ECONOMIC GROWTH


Ruttan, Ch 2, “Accounting for Economic Growth,” pp. 29-44. Also, pp. 49-52 and Box A2.1 (Definitions of Neutrality).


Mansfield, Edwin.1968, The Economics of Technological Change, Ch.2, pp.10-21


Ruttan, Box 2.1 (The Harrod-Domar and Solow-Swan Growth Models), pp. 26-27.


III. SOURCES OF TECHNICAL CHANGE AND ENDOGENOUS GROWTH


Schumpeter, Joseph.1942, Capitalism, Socialism and Democracy. Ch.7, pp.81-86.

_________________.The Theory of Economic Development, pp.81-85.


IV. THE ECONOMICS OF R&D AND PATENTS


V. TECHNICAL AND INSTITUTIONAL INNOVATION


VI. INNOVATION AND THE FIRM


VII. TECHNOLOGY TRANSFER (Wednesday, Nov. 20, 6:30 pm)

Ruttan, Ch. 5, “Technology Adoption, Diffusion, and Transfer,” pp. 147-172.


VIII. COMPARISONS OF NATIONAL INNOVATION SYSTEMS (Friday, Nov. 22)


Westphal, Larry. "Korea's Technological Development".(5 pages, source unknown)


Each of the readings with an asterisk (*) is an acceptable topic for a class essay assignment.