Course Syllabus HIST/ECON/JPNA301 Spring 2019

Course Name: **History of Technology in Japan**
Year Available: Year 3 (Junior)
Course Code: HIST/ECON/JPNA301 – triple-listed
Subject Area: History
Class Style: Lecture
Number of Credits: 3
Term(s) Offered: Spring Semesters
Prerequisites: None
Instructor: Jürgen Paul Melzer j-melzer@ygu.ac.jp

**Course Description**
In this class we will examine the role of technology in Japan’s history from the 1800s to the present. In the first part of the course we will follow Japan’s rapid industrialization until the mid-1930s. We will explore the legacy of Tokugawa technology, the role of technology transfer and diffusion during the Meiji period, and the emergence of Japan’s large-scale industries. We will also look at icons of modern Japanese technology such as the Zero-sen fighter aircraft, the Shinkansen bullet train, and humanoid robots and put them into a wider context of technology and World War II, technology and Japan’s economic miracle, and technology in Japan’s changing society.

**Course Objectives**
At the end of this course, students should be able to:

1. identify the historical roots of Japan’s technological transformation
2. put Japan’s technological development into a context of international competition and cooperation
3. assess the role of technology in Japan’s rise to an industrial superpower.
4. connect the history of Japan’s technology to major political, economic, and social developments.

**Grading Criteria**
There will be one in-class midterm and a final examination. Grading is as follows: attendance and participation in discussions (20%); midterm (20%); paper and presentation (35%); final examination (25%). Students cannot expect to pass the course if they fail to attend the lectures on a regular basis.

**Organization**
Classes will start with a 20-minute discussion followed by a 55-minute lecture. Depending on class size each student will lead at least one discussion and prepare a summary and review of the readings in advance of the class meeting.

**Paper**
One essay 2500-3000 words essay (roughly equivalent to 8-10 typed pages, double-spaced), due by the first day of the examination week. It is best to define your own topic and central questions in consultation with your lecturer. Your essay should be based on course readings and at least one additional book or set of essays that deals with your topic. Late papers will be penalized. **Students are strongly advised to review the “Plagiarism Guidelines” outlined in iCLA’s Student Handbook.**

**Required Materials**
All texts will be available in a course reader or will be posted online.

LECTURES AND READINGS
All required readings should be done prior to the date under which they are listed.

WEEK 1: History of Technology: Topics and Challenges
(1) Course Introduction
(2) “Opening Up the Black Box of Technology” Reading:

WEEK 2: Tokugawa Japan, 1600-1868
(1) Encounters: Western Technology Comes to Japan
(2) An “Industrious Revolution”? Reading:

WEEK 3: Case Study I: Tokugawa High-Tech
(1) Japanese Clocks (2)
   Karakuri Mechanical Dolls
   Reading:
   • Fernandez, M. P. “Precision Timekeepers of Tokugawa Japan and the Evolution of the Japanese Domestic Clock” Technology and Culture 37, no. 2 (1996), pp. 221-228.

WEEK 4: Meiji Japan, 1868-1911
(1) The Modernizers
(2) “Civilization and Enlightenment” and Technological Choice Reading:

WEEK 5: Case Study II: The Japanese Silk Industry
(1) Imported technology: The Model Filature at Tomioka (2)
   Low Tech – High Impact: Silk Reeling in the Suwa Region
   Reading:

WEEK 6: The Industrialization and Militarization of Japan
(1) Technology Transfer During the Interwar Period
(2) Japan Prepares for War: Military Technology and Innovation Before 1937 Reading:

WEEK 7: Imperialism and Technology
(1) Japan’s “Technocratic Rule”
(2) Technology and Japanese Expansion in Asia Reading:

WEEK 8
(1) Mid-term test
(2) Case Study III: The Mitsubishi Zero-Sen Fighter Aircraft Reading:

WEEK 9: Wartime Japan
(1) The Mobilization of Science and Technology (2)
Superbattleships, Jet Aircraft, and “Death Rays” Reading:

WEEK 10: The Emergence of a Technological Superpower
(1) Trans-War Continuities
(2) Godzilla: Men in Rubber Suits and the Nuclear Age Reading:
WEEK 11: Case Study IV: The Shinkansen Bullet Train
(1) The History and Development of the Shinkansen (2) The present and future of Japan’s high-speed trains
Reading:

WEEK 12: Japanese Technology as Number One?
(1) Transistors, Walkmen, and Computers (2) Motor Scooters, Cars, and Robots (again)
Reading:

WEEK 13: Fly & Play: Japanese Modern Key Technologies
(1) Postwar Aviation, Armament, and Industrial Policy (2) Asobimashō: Japan’s Video Games and their Technology
Reading:

WEEK 14
(1) Students’ Presentations I: Technology in Japan’s Everyday Life (2) Students’ Presentations II: Technology in Japan’s Industry

WEEK 15
(1) Students’ Presentations III: Technology and Japan’s Popular Culture (2) Outlook: Japan and the Technologies of the 21st Century