

# Integrated Studies Program at ESG (SP.272)

## Overview Syllabus

### 1 General Information

Instructors:

Amilio Aviles (amilio@mit.edu)  
Next House, rm. 308  
phone: 5-8758  
Senior in Course 16

Jimmy Rising (jrising@mit.edu)  
Random Hall, rm. 244  
phone: 5-9725  
Senior in Course 24

Also helping: Peter Dourmashkin (padour) and Christina Laskowski (cmlaskow). All instructors may be contacted at [esg-isp@mit.edu](mailto:esg-isp@mit.edu).

### 2 Structure

ESG-ISP is divided into a series of sections or “modules”, each of which concentrates on a particular large technology-related topic in a cultural context. We will use most of two modules previously developed by the ISP program for depth and parts of three others for variety. The class will start with a four week module on Samurai Swords and Blacksmithing, followed by smaller units on Chinese Cooking, the Invention of Clocks, and Andean Weaving, and end with a four week module on the Automobiles and Engines.

There will be two class meetings per week, at which assigned readings and related topics will be discussed. In addition, there will be a series of hands-on projects that tie theory and practice together. The discussions will range across anthropology, history, and individual development, and emphasize recurring themes, such as the interaction between technology and culture and the difference between “skill” knowledge and “craft” knowledge.

### 3 Readings

This list is organized as a sequence of class meetings (of which each two make a week). Each class time has associated readings and discussion.

- **The Samurai Sword and Blacksmithing** (4 weeks)

Lab: 3 sessions in the MIT forge on self-selected projects.

1. Introduction to Japan
2. The Making of a Katana
3. The Samurai's Cultural Origins
4. Bushido and Samurai Codes
5. Zen and the Samurai
6. Civil War and Unification
7. Giving Up the Gun
8. The Tokugawa State

- **Chinese Cooking and Food** (1 week)

Lab: Chinese Cooking

1. The Context of Chinese Food
2. The Interplay between Chinese Food and Culture

- **John Harrison and Clocks** (1 week)

Lab: Taking apart clocks

1. Harrison and the Longitude Problem
2. Clock Design Issues and Engineering

- **Andean Weaving** (2 weeks)

Lab: Quipu-Making and Information

Lab: Weaving (back-strap loom)

1. Purvian Textiles and Culture
2. Quipus
3. Peruvian Textile Techniques
4. Textiles and their Functions

- **Automobiles and Engines** (4 weeks)

Lab: Taking apart and rebuilding engines

1. Early History of the Automobile
2. Engine Design and Engineering
3. Suburbanization

4. American Rites of Passage
5. Car Stories
6. Fast Food and American Culture
7. Scientific Thinking, Zen, and Motorcycles
8. Cultural Change and Progress

## 4 Requirements

The 9 units for this class will be divided as follows:

- Meeting Times - 4 hours per week, divided into two 1 hour meetings and one 2 hour meeting
- Reading - 3 hours per week, or about 60 pages per week
- Writing - 2 hours per week, or a total of about 13 pages for the semester

The one hour class meetings will normally be used for discussion and the two hour meeting for lab, however these may be switched around as convenient.

The reading will be about 30 pages per class meeting.

The writing will be split up into one 6-7 page paper, one 3-4 page paper, and a series of evaluation topic questions which will help us track students' reading. The papers will largely be on topics of the students' choice. The topic questions will ask for short answers (1-2 paragraphs) which require information from the readings, and will be administered (as take-home assignments) every week or two.

Grading breakdown:

- Participation - 40%
- Short Paper - 10%
- Long Paper - 30%
- Topic Questions - 20%

Please tear off this sheet, fill it out, and turn it into Jimmy's mailbox by Friday. If it is more convenient, you email the information to [jrising@mit.edu](mailto:jrising@mit.edu).

Name:

Email:

### Weekly Lunch

It was a tradition in ISP to include a lunch every week for the students. We will be continuing this tradition, however because of our small class size, we'd like to get some feedback from you on what you like to eat, will eat, and won't eat.

Dietary Restrictions (include vegetarian/vegan, if applicable):

Food Preferences:

### Scheduling

It is likely that we will need to move our class times to accommodate everyone. This will also be used to schedule people for labs. Please mark the following grid with your schedule. Use the following code: X = cannot schedule at this time; - = would prefer not to be scheduled at this time; + = would particular like this time; blank = may be used for ESG-ISP.

	Monday	Tuesday	Wednesday	Thursday	Friday
9 - 10					
10 - 11					
11 - 12					
12 - 1					
1 - 2					
2 - 3					
3 - 4					
4 - 5					
5 - 6	X	X	X	X	X
6 - 7	X	X	X	X	X
7 - 8					
8 - 9					
9 - 10					
10 - 11					

### Forge Sessions

Forging sessions will start next week. Please choose Tuesday or Thursday, if you can make one of these. If you can make neither time, please email [esg-isp@mit.edu](mailto:esg-isp@mit.edu).

- [ ] Tuesdays, 7:30 - 9:30 pm
- [ ] Thursdays, 7:30 - 9:30 pm