

FabLab Assignment for SPAN 3311
Dr. Amy Austin

Purpose: Students will make connections between Spain's past and present through the creation of an object in the FabLab that reflects, responds to or resolves a cultural or historical problem. The process of planning and completing the FabLab Project will involve a series of steps. Due dates indicated on the syllabus will be strictly observed.

Course Student Learning Outcomes:

- Draw connections between cultural artifacts (documents, films, stories, architecture, art, geographical spaces, etc.) and cultural and historical problems relating to Spain's history through classroom discussion, tests, and projects.
- Engage with the FabLab through the design and creation of an original object that critically assesses Spanish culture.
- Utilize project management skills to plan, organize and pace a group project designed to educate their classmates on a cultural, political or historical topic.

FabLab Student Learning Outcomes:

- 1) Identify the need to invent, design, fabricate, build, repurpose, repair, or create a new derivative of some "thing" in order to express an idea or emotion, to solve a problem, and/or teach a concept
 - a. recognize unmet needs that may be filled by making
 - b. tinker and hack to learn how things are made and how they work
 - c. evaluate the costs and benefits of making as an alternative to buying or hiring
 - d. investigate how others have approached similar situations
- 8) Develop a project plan
 - a. identify who the relevant stakeholders are
 - b. specify actionable and measurable project goals and requirements
 - c. utilize time management and project management tools
 - d. outline project milestones, including sequential action items
 - e. anticipate time for multiple prototype iterations
 - f. work effectively within project constraints, be they financial, material, spatial, and/or temporal

Requirements:

- Individual or in groups of two
- Must use the FabLab to create the object

Project Components:

- Project Proposal: 750 words
- Journal Entries: 5 total, varying length
- Made Object: to be completed in stages
- Class presentation: 5 minutes
- Final reflection piece: 1500 words

Explanation of Project Components:

1. Journal Entries (Diarios) (5)

Each student will write a series of 5 journal entries, responding to the question prompts provided by the professor. These journal entries will be critical reflections on the process of planning and completing a project

in conjunction with the FabLab. These reflection pieces will be graded for grammar, style, and content. SEE APPENDIX B

Journal entries will be where you document all of the work on your FabLab Project. The entries should show critical thinking, creativity, and insightful reflection.

There is no model for completing your journal entry. However, you are responsible for demonstrating that you have accomplished the four objectives of Project Management: Research, Planning, Action, Reflection.

Goals of the journal entries:

- Write consistently throughout your project to document its development.
- Use to document intentions, processes, and accomplishments.
- Use to document preliminary ideas and developments, brainstorming, as well as possible pitfalls and questions.
- Use to document your interaction with resources: the FabLab team members, your professor, collaborators, etc.
- Use to document your research process and the resources you consult to organize your bibliography.
- Use to archive images, drawings or visual inspirations.
- Use as a means to document ideas and possible solutions.
- Use to evaluate your own work.
- Use to reflect on your learning process.

For the final reflection, you must select a minimum of 5 fragments from your journal and place them in an appendix at the end. These fragments can include:

- Diagrams
- Lists of ideas
- Tables
- Short paragraphs
- Notes
- Plans of Action
- Research with annotations
- Images, photos, drawings
- Screen shots of websites or blogs
- Self-evaluation or peer evaluations
- Questionnaires or surveys
- Reflections on your interactions with the FabLab team

2. Project Proposal (1)

Each individual will write a proposal for the FabLab Project. SEE APPENDIX B

The Proposal will answer the following questions:

- What is the cultural or historical problem?
- What is the object you will create?
- How does the project align with the learning outcomes for the course?
- What are the benefits for the user?
- What is the timeframe, what are the deadlines and how do you plan to meet them?
- What are the resources you'll need to get the project done on time?
- What's the project budget?

- What are the risks and issues?
- Who are the people responsible for the project and what are their roles?

3. FabLab Object

Each individual or pair will create an object using at least one of the resources in the FabLab: 3D Printing, 3D Scanning, Cutting and Etching (Laser Cutter, Vinyl Cutter, Mini Mill, Silhouette Cameo Cutting Tool), Auxiliary (Oculus Rift, Papermaking), Shop Room (Woodworking), Textiles (Sewing and Embroidery).

Requirements:

- The FabLab object must clearly reflect, respond to or resolve a cultural or historical problem. In order to determine their approach, students must thoroughly research all sides of the problem in order to come to an informed conclusion on how to represent the problem and/or its solution.
- The project must show critical thinking about Spain's cultural and/or political history.
- Students must use at least one resource in the FabLab.

The object will be graded based on content, neatness and attractiveness, creativity, and overall effectiveness and completion. See APPENDIX B

4. Oral Presentation (1)

Students will give one 5-minute oral presentation on their FabLab Project. These will be programmed in Week 12. The grade will be based on content, delivery, organization, creativity, and length. See APPENDIX C

Purpose: To demonstrate an analytical approach to a Spanish cultural problem through the creation of an object in the FabLab.

Format:

1. Explain the cultural problem.
2. Present the object and explain the ways in which it reflects, responds to, and/or resolves the problem.
3. Present the challenges in creating your cultural artifact (time management, access to machines, preliminary failures, etc.) and how you resolved them.
4. Outline the successes and what you learned through this process.

5. Final Reflection Paper (1)

Students will write a critical reflection paper on their final FabLab Project. See APPENDIX A

The Final Reflection Paper will answer the following questions:

1. WHAT?: What was your interaction with the FabLab? What was your experience planning and creating an object in the FabLab? With whom did you interact during the project and what was the nature of those interactions? How did you plan and manage your time in completing the project? What was your role from beginning to end?
2. SO WHAT?: What was the significance of researching, planning, and creative your object? What did it mean to you personally? What was your main goal in creating your object? What are your feelings about the experience? What did you learn about the FabLab and its role in student learning?
3. NOW WHAT?: What impact did this experience have on your everyday life? What did you learn about your creative abilities and your project management skills?

APPENDIX A

Rubric for Journal Entries, Proposal, and Final Reflection Piece

	A	B	C	D / F
Content / Meaning	Demonstrates a clear focus on the assigned task/topic and addresses all parts of the task	Maintains focus on the assigned task/topic and addresses most of the task	Some focus on the assigned task/topic yet focus is not entirely clear	Lacks a clear focus on the assigned topic; does not address the task
Analysis and Interpretation	Reveals an in-depth analysis and interpretation of the novel/issue; makes insightful connections	Conveys a thorough understanding of task and novel/issue; makes explicit connections	Conveys a basic understanding of the task and the novel/issue; makes few or superficial connections	Provides a confused or inaccurate understanding of the task or the novel; unclear or no connections
Development and Completion	Ideas are clearly and fully developed by making effective use of relevant and specific details from the novel or facts about the issue; all parts of the task are completed with care	Ideas are clearly and consistently developed by using relevant and specific details from the novel or the issue; all parts of the task are complete	Ideas are briefly developed using some details from the novel/issue; all parts of the task are complete, but some parts lack development	Ideas are largely incomplete; one or more parts of the task are incomplete
Language and Conventions	Exhibits correct spelling, grammar, punctuation; project uses sophisticated language and vivid details from the text	Mostly correct spelling, grammar, punctuation; uses appropriate/effective language and incorporates sensory detail	Exhibits errors that somewhat hinder comprehension; some appropriate/effective language and sensory language	Exhibits many errors that hinder comprehension; uses few or no effective words or sensory language
Thematic Connections	Makes insightful connections	Makes explicit connections	Makes few or superficial connections	Little or no connections made

APPENDIX B

	SUPERIOR (9-10)	ADEQUATE (7-8)	MINIMAL (5-6)	INADEQUATE (0-4)
Required Elements	Goes over and above all the required elements stated in the instructions	Includes all of the required elements as stated in the instructions	Missing one or more of the required elements as stated in the instructions	Several required elements are missing from the project
Content	Shows a sophisticated understanding of Spain's cultural history and its implications.	Shows an adequate understanding of Spain's cultural history and its implications.	Superficial understanding of Spain's cultural history and its implications. May have a few misinterpretations.	Does not show an understanding of Spain's cultural history and its implications. Several errors and misinterpretations.
Neatness and Attractiveness	Exceptionally attractive and particularly neat in design and layout. Exceptional attention to detail	Attractive and neat in design and layout. Shows attention to detail.	Acceptably attractive, but may be messy at times and show lack of attention to detail.	Distractingly messy or very poorly designed. Does not show pride in work or attention to detail.
Creativity	Very original presentation of material; captures the audience's attention.	Some originality apparent; good variety and blending of materials / media.	Little or no variation; material presented with little originality or interpretation.	Repetitive with little or no variety; insufficient use of materials / media.
Overall Effectives and Completion	Project is engaging and organized and presents material that is captivating for the viewer.	Project is somewhat organized, complete, and holds the attention of the viewer.	Project is disorganized and incomplete at times and is somewhat able to hold the attention of the viewer.	Project is incomplete and not easy to follow.

APPENDIX C

Rubric for Oral Presentation

	SUPERIOR (9-10)	ADEQUATE (7-8)	MINIMAL (5-6)	INADEQUATE (0-4)
Content	The speaker provides a variety of types of content appropriate for the task, such as generalizations, details, examples and various forms of evidence. The speaker adapts the content in a specific way to the listener and situation.	The speaker focuses primarily on relevant content. The speaker sticks to the topic. The speaker adapts the content in a general way to the listener and the situation.	The speaker includes some irrelevant content. The speaker wanders off the topic. The speaker uses words and concepts which are inappropriate for the knowledge and experiences of the listener (e.g., slang, jargon, technical language).	The speaker says practically nothing. The speaker focuses primarily on irrelevant content. The speaker appears to ignore the listener and the situation.
Delivery	The speaker delivers the message in a confident, poised, enthusiastic fashion. The volume and rate varies to add emphasis and interest. Pronunciation and enunciation are very clear. The speaker exhibits very few disfluencies, such as 'ahs,' 'uhms,' or 'you knows.'	The volume is not too low or too loud and the rate is not too fast or too slow. The pronunciation and enunciation are clear. The speaker exhibits few disfluencies, such as 'ahs,' 'uhms,' or 'you knows.'	The volume is too low or too loud and the rate is too fast or too slow. The pronunciation and enunciation are unclear. The speaker exhibits many disfluencies, such as 'ahs,' 'uhms,' or 'you knows.' The listener is distracted by problems in the delivery of the message and has difficulty understanding the words in the message.	The volume is so low and the rate is so fast that you cannot understand most of the message. The pronunciation and enunciation are very unclear. The speaker appears uninterested.
Organization	The message is overtly organized. The speaker helps the listener understand the sequence and relationships of ideas by using organizational aids such as announcing the topic, previewing the organization, using transitions, and summarizing.	The message is organized. The listener has no difficulty understanding the sequence and relationships among the ideas in the message. The ideas in the message can be outlined easily.	The organization of the message is mixed up and random. The listener must make some assumptions about the sequence and relationship of ideas.	The message is so disorganized you cannot understand most of the message.
Creativity	Very original presentation of material; captures the audience's attention.	Some originality apparent; good variety and blending of materials / media.	Little or no variation; material presented with little originality or interpretation.	Repetitive with little or no variety; insufficient use of materials / media.
Length of Presentation	Within one minute of allotted time .	Within two minutes of allotted time.	Within three minutes of allotted time .	Too long or too short; four or more minutes above or below the allotted time.

