The Cooper Union

Identifying Information

- ☐ **Indicates School or Faculty?** *(must indicate school of Architecture, Art, or Engineering or Faculty of HSS)*
- ☐ **Indicates department?** *(school of engineering only, if applicable)*
- ☐ **Indicates semester and academic year being offered?**

Basic Course Information

- ☐ **Gives course title, number, and section (*if applicable*)?**
- ☐ **Gives class meeting time(s) with days of the week and hours?**
- ☐ **Gives class location / room number?**
- ☐ **Gives link to course website or learning management system?** *(e.g. Moodle, Blackboard, MS Teams)*

Instructor Information

- ☐ **Gives instructor first and last name?**
- ☐ **Gives instructor contact information such as E-mail and contact #?**
- ☐ **Gives instructor's office hours and location?**
- ☐ **Gives instructions on preferred mode of communication?** *(it is helpful to indicate your preferred mode of contact such as E-mail, phone, MS Teams, etc. as well as when and how students can expect a reply to any electronic communication)*

Course Overview

- ☐ **Gives course description from course listings, including credits and pre-requisite and co-requisite courses?** *(it could also include a more detailed version as well – the description may include information about what type of course it is, such as lecture, lab, studio, workshop, discussion-based seminar, writing-intensive, or project-based as well as any particular pedagogical strategies that will be utilized, such as group work, research, field trips/site visits, etc.)*

Prerequisite Skills and Coursework

- ☐ **Provides an overview of the skills from other courses that students will build upon?** *(required prerequisites are given in the course listings, but often there is a particular set of skills from previous courses that students will need to use often)*

Required Texts, Materials, or Equipment

- ☐ **Lists any required texts?** *(give titles, authors, as well as edition)*

- ☐ **Lists any other required materials or equipment?** *(e.g. lab notebook, specific calculator, etc.)*
- ☐ **Includes any electronically available content?** *(are you using a learning management system such as Blackboard, Moodle, MS Teams, course website, etc. or are materials available through library reserves)*

Course Goals and Outcomes

- ☐ **Lists student learning outcomes?** *(student learning outcomes are skills students should have after completing the course – an example might be "After completing this course, students will be able to. . . communicate effectively in writing about the economic factors resulting in the War of 1812.")*
- ☐ **Lists curriculum / degree program outcomes associated with the course?** *(these are student learning outcomes addressed by the entire curriculum – examples are ABET, NASAD, or NAAB outcomes or college-wide educational learning outcomes)*
- ☐ **Explains how achievement of these outcomes will be measured / indicated?** *(this is typically through submitted student work which indicates adequate achievement of a particular skill)*

Assignments and Class Participation

- ☐ **Explains assignments students must complete as part of the course?** *(examples of assignments are in-class work, homework, project assignments, quizzes, exams, reflections, drafts, etc.)*
- ☐ **Describes what students are required to do to prepare for each class?** *(this could be a summary or list, a narrative, or a detailed week-by-week or class-by-class schedule)*
- ☐ **Describes each of the major graded components of the course?** *(this information should be given in enough detail that a student reading the syllabus can have a good understanding of the amount and type of required work.)*
- ☐ **Describes the function of student participation within the course?** *(explain your expectations for how students should participate in class – this information should include whether participation is required, how it is assessed, etc.)*
- ☐ **Indicates whether attendance is required?** *(if it is, the instructor must take attendance)*
- ☐ **Describes expectations for in-class behavior?** *(for example, "interactions in class should be civil, respectful, and supportive of an inclusive learning environment for all students" – you might encourage students to speak to you, the dean, or their advisor about any concerns they may have about classroom participation and classroom dynamics)*

Course Grading

- ☐ **Gives a statement of grading approach or philosophy?** *(you should explain how you will assess student achievement – does class participation count, does attendance count, why you weight the different parts of the course in the way you do, . . .)*
- ☐ **Explains how assignments are weighted?** *(this should include all assignments such as exams, projects, papers, reports, drafts, critiques, presentations, etc. that together determine the final grade for the course with a clear indication of the value of each – include what extent participation is weighed, how much attendance counts, are major assignments graded on a curve, will exams be graded anonymously, will some adjustment be applied when grades are tabulated, etc.)*
- ☐ **Explains how course grades will be assigned?** *(If relevant, include grade cut-offs or other information –*

explain whether some adjustment will be applied when grades are tabulated)

Course Policies

- ☐ **Includes a general statement on course policies?** *(for example, "Course policies are developed to support fair and equitable treatment in the classroom and to set performance standards")*
- ☐ **Identifies penalties for late work or extensions?**
- ☐ **Lists policies on missed exams, make-up exams or quizzes, presentations?**
- ☐ **Gives policy on requests for instructor feedback on drafts and requests to revise?** *(you should include these policies if your course includes writing assignments or other major assignments that involve revision – instructors must offer the same amount of feedback and the same opportunities to revise for all students)*
- ☐ **Is there a policy on the use or mis-use of technology?** *(if you use an online discussion board, you might also consider a "digital etiquette" policy indicating guidelines for respectful online discussions. Also, use/presence of cell phones in class, use/presence of laptops in class. . .)*
- ☐ **Is there an academic integrity policy listed or referred to?** *(Acts of academic dishonesty are extremely serious violations of both the spirit and the substance of this community)*

Resources for Students

- ☐ **Includes a link to the Cooper Union Title IX policy on sexual misconduct?** *(our policy can be found here.)*
- ☐ **Includes a link to our disability support services?** *(these services can be found here.)*
- ☐ **Includes a link to our counseling and mental health services?** *(these services can be found here.)*

Course Syllabus Example - DRAFT
The Cooper Union

EID002: Introduction to the Advancement of Science and Art

Albert Nerken School of Engineering
Professor Francis Soandso

Spring 2022 Syllabus

Class meeting times:

Wednesdays 2:00 – 3:50 PM in Room 106 of the NAB and Fridays 3:00 – 3:50 PM in Room 503 of the NAB

Prerequisites and other requirements:

This course has one prerequisite, EID001: Basics of Science and Art. However, I generally assume that every student in the class is at least a 3rd year and has taken EID000: Science and Art for Dummies. We have a required textbook, Artsy Science Things by J. Arnold Fancypants. I will generally be following the textbook through the course; please purchase it and have your book available to you during class. If you would like to prepare ahead of time, you can read the text by following the section numbers in the class schedule, but that is not essential. You should be prepared to take notes during class (pen/pencil and paper or a tablet) and please bring a calculator to class so you can do certain in-class activities. I will use MS Teams to post assignments, post lecture notes, make class announcements, and have you submit your work.

Course description:

In this 3-credit course, the topics of science and art throughout history will be explored. We will cover artsy science, sciencey art, the scientific method, and other important topics. This is the course description from the course listings on the Cooper Union website.

Course goals and objectives:

The goal of this course is to prepare you to explore science and art at a more advanced level in EID003: Advanced Science and Art. By the end of this course, you should be able to:

- Communicate effectively in writing about science
- Explain orally how art and science are interrelated
- Identify whether a topic is related to science or art
- Choose an appropriate medium for addressing a historical topic in science or art
- Create new work themed around the intersection of art and science
- Solve for simple relationships from science

Your submissions for homework assignments, exams, and certain parts of the project will be what I use to evaluate whether you can do these things.

Homework assignments, projects, and exams:

You will be given six (6) homework assignments (HWs), a midterm exam, and a final project in this class. The HWs will be due at the time listed on the assignment and will be assigned at least one week prior to their due date. Homework assignments will consist of problems and short answer questions which reinforce concepts from class and the text. I expect that you will spend about 6 hours per week outside of class on work for this class. Please upload all assignments to MS Teams in a form which is neat, legible, and organized. I will grade and hand back assignments through MS Teams. The final project will cover the material in Chapters 6 through 12 which I present in class and on the homework assignments, with a disproportionate emphasis on Chapter 12. You will submit a project proposal, a first draft, and a final report for the project. We will meet either during class time or during office hours so I can give you feedback on your proposal and your first draft.

Homework groups:

I will assign homework groups three times – you should work together with your group on all HWs and you will be graded together on those assignments. These groups are intended to be invitations for discussion and will hopefully lead to you and your fellow group members learning more by collaborating. I may reassign groups based on performance on homework assignments, well-founded complaints by one or many members of the group, or because of the need to split up another group (and thus break up two groups to form two new groups).

The HWs will be done in groups of two or three but each group member must submit their own work. The final project will be an individual assignment, not done in groups. I will ask you to submit a group member evaluation form for each group member you have during the semester which will be available on MS Teams.

Attendance and grading policy:

Your attendance in class is important for your success and the classroom environment; I expect every student to attend every class. Please E-mail me before class if you will be late or absent for whatever reason and if you must miss class, please come to my office hours to find out what you missed. Please ensure that your interactions in class with me and other students are civil, respectful, and supportive of an inclusive learning environment for all students – I encourage you to speak to me, the dean, or your academic advisor about any concerns you have about classroom participation and dynamics.

There will be no make-up or extra credit work associated with this class. If you cannot submit an assignment on time, you must contact me for permission to hand in a late assignment; failure to do this will result in a zero grade for the assignment. All assignments must be completed for a passing grade in the class. Students will be graded as follows:

	HW	**Midterm Exam**	**Final Project**
% of grade	50	20	30

HWs are the most important part of the course, but they are done in groups so I need an individual assessment of your performance via the midterm exam and the final project assignment (which is the second most important part of the course). Letter grades will be determined at the end of the semester using the grading scale below:

90-100	A - superior and comprehensive grasp of the course principles
80-89	B - good degree of familiarity with the course principles
70-79	C - average knowledge of the course principles and fair performance

60-69	D - minimum workable knowledge of the course principles
<60	F - - unsatisfactory understanding of the course principles

Office hours:

My office hours will be remote through MS Teams – please send me a chat on Teams if you want an appointment during these times; they are hours I set aside in my schedule for you:

Tuesdays 4:00 – 5:00 PM, Wednesdays 11:30 AM – 12:30 PM, and Fridays 1:00 – 2:00 PM

E-mail address is professor.soandso@cooper.edu if you have a question which is not urgent or if you need to let me know you're going to be absent, late, etc. If you send me an E-mail, please put "EID002" as the start of the subject, e.g. "EID002 HW1 Question". Using the chat on MS Teams with a brief question is generally the fastest way to get a response.

Course policies, expectations of the classroom environment, and expectations for the professor:

I try to create course policies that support a fair and equitable classroom and set high performance standards for all students. I hope to create an inclusive learning environment where you feel both challenged but also constantly respected and recognized within the course. Please make an appointment with me (ideally within office hours) if you are having any issues related to me, the course, or your fellow students.

While I want you to feel comfortable coming to me with issues you may be struggling with or concerns you have, please be aware that I have reporting requirements that are part of my responsibilities as a member of the faculty. If you inform me of an issue of sexual harassment, sexual assault, or discrimination, I will keep the information as private as I can, but I am required to report the basic facts of the incident to Cooper's Title IX Coordinator. The Cooper Union Title IX policy on sexual misconduct can be found here.

Counseling Services at The Cooper Union are coordinated through the Office of Student Affairs. The Cooper Union counseling and mental health services website can be found here.

Please see below for policies on technology, student accommodations, and group work / academic integrity.

Technology policy:

You may use a tablet or a laptop during class to take notes and may use a computer to complete homework assignments and the project. You may use a calculator during class. You may not use any other electronic device during class without my permission. You may not use a laptop, tablet, cell phone, or any other electronic device during class for any purpose unrelated to class; for example, you may use your laptop to look at an electronic textbook for the class, but not to look at Instagram.

Accommodations:

Students with disabilities or who need special accommodations for this class are required to notify the Dean of Students and meet with me so that arrangements can be made. The Cooper Union has limited resources and extra lead time is required for such arrangements to be feasible. In order to receive accommodations for an exam, you must notify me in writing at least two weeks before the accommodations are needed and you must also be registered with the Dean of Students. Students will not be afforded any special accommodations

retroactively, i.e., for academic work completed prior to disclosure of the disability to me and the Dean. Disability support services for students are described here.

Group work and academic integrity policy:

The Cooper Union School of Engineering Policy on Academic Integrity is posted here. I believe group work is important to learning; I am requiring you to work in groups on your homework assignments. However, each student MUST submit their own work product for each HW. Plagiarism is the presentation of another person's "work product" (ideas, words, equations, computer code, etc.) as one's own. Whether done intentionally or unintentionally, plagiarism will not be tolerated in this class. You are plagiarizing if:

1. You present as your own work product a submission that includes the work product of your other group members
2. You present as your own work product a submission that contains the efforts or work product of other individuals aside from your other group members (i.e. code from the internet)
3. You present as your own work product material from previous iterations of this course (old midterm exams, slides, old projects, homework solutions); representing my work as your own work is not only plagiarism, it keeps you from practicing forming and writing your own answers to my questions.
4. The help and contributions of other individuals are not acknowledged in writing on your submission (by writing their names or citing their published work)
5. You copy the work of other students on an in-class examination or communicate with other individuals in any fashion during an exam
6. You submit as part of a homework assignment or project material that has been copied from any source (including, but not limited to, a textbook, a periodical, an encyclopedia, the internet) without properly citing the source, and/or without using quotation marks. It is also prohibited to submit such materials in a minimally altered form without proper attribution. Improperly copied material might include text, graphics (computer or otherwise), computer source code, etc.

If I have a strong suspicion that you have plagiarized your submission for an assignment (homework or project,) you will be reported to the Dean's Office and likely receive a zero on that assignment. If I have a strong suspicion that you have cheated on an examination, you will be reported to the Dean's Office and likely receive a zero on that examination and a D or F in the course.

ABET Outcomes for this Course:

ABET is a nonprofit, non-governmental organization that accredits college and university programs in the disciplines of applied science, computing, engineering, and engineering technology. As part of the accreditation process, engineering programs are required to assess student outcomes which are acquired by students who are enrolled in the program. Student outcomes are succinct statements that describe what students are expected to know and be able to do by the time of graduation. These outcomes relate to skills, knowledge and behaviors that students acquire as they progress through the program. The outcomes most closely associated with this course (taken from the ABET website) are:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Sequence of topics and class schedule (with due dates for the parts of the project):

Week	Hour	Day	Date	Topic(s)	Due
1	1,2	Wed	1/20	Introduction / overview / syllabus / course motivation	
1	3	Fri	1/22	Chapter 1	
2	4,5	Wed	1/27	Chapter 1	
2	6	Fri	1/29	Chapter 1	HW1
3	7,8	Wed	2/3	Chapter 1	
3	9	Fri	2/5	Chapter 2	
4	10	Wed	2/10	**FRIDAY SCHEDULE** Chapter 2	
4	X	Fri	2/12	**NO CLASS** (Founder's Day)	
5	11,12	Wed	2/17	Chapter 2	HW2
5	13	Fri	2/19	Chapter 3	
6	14,15	Wed	2/24	Chapter 3	
6	16	Fri	2/26	Chapter 4	HW3
7	17,18	Wed	3/3	Chapter 4	
7	19	Fri	3/5	Chapter 5	Proj. up
8	20,21	Wed	3/10	**MIDTERM EXAM** (In class)	
8	22	Fri	3/12	Chapter 5	
9	X	Wed	3/17	**NO CLASS** (Wellness day)	
9	23	Fri	3/19	Chapter 5	Proj. proposal
10	24,25	Wed	3/24	Chapter 5	
10	26	Fri	3/26	Chapter 6	HW4
11	27,28	Wed	3/31	Chapter 6	
11	29	Fri	4/2	Chapter 7	
12	30,31	Wed	4/7	Chapter 7	
12	32	Fri	4/9	Chapter 10 (Important topic on Science and Art)	Proj. draft
13	33,34	Wed	4/14	Chapter 7	
13	X	Fri	4/16	**NO CLASS** (Wellness day)	
14	35,36	Wed	4/21	Chapter 10	HW5
14	37	Fri	4/23	Chapter 11	
15	38,39	Wed	4/28	Chapter 11	
15	40	Fri	4/30	Chapter 12	HW6
16	41,42	Wed	5/5	Chapter 12	
16	X	Fri	5/7	**NO CLASS** (Study Period)	
17	43,44	Wed	5/12	Chapter 12	
17	X	Fri	5/14	**NO CLASS** (Project due electronically by 11:59 PM)	Proj. final