

**SAMPLE SYLLABUS** – *This syllabus is provided as a sample. Some course content may vary.*

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## **NYUSteinhardt**

**DEPARTMENT OF MEDIA, CULTURE, AND COMMUNICATION**

**E59.1411**

### **VISUAL CULTURE OF SCIENCE AND TECHNOLOGY**

#### **Course description:**

This course examines the imagery of science and technology, the role of visibility in the construction of scientific knowledge, artistic renditions of science, and the emergence of visual technologies in modern society. It looks at how visibility has been key to the exercise of power through such practices as cataloguing and identification; the designation of abnormality, disease, and pathologies; medical diagnosis; scientific experimentation; and the marketing of science and medicine. We will examine the development of the visual technologies in the emerging scientific practices of psychiatry and criminology; explore the sciences of eugenics, genetics, pharmacology, brain and body scans, and digital medical images of many kinds; the marketing of pharmaceuticals, and the emerging politics of scientific activism.

#### **Learner Objectives:**

- Describe the history of the role of images in the practice of science
- Identify the particular visual technologies that have been central to scientific practices
- Demonstrate the relationship of visibility and power in the practice of science and concepts of objectivity
- Apply theoretical concepts of power to particular scientific images
- Compare the discourses of objectivity and visibility in scientific images to the use of images in the marketing of medicine and scientific devices
- Explain how images construct concepts of fact, knowledge, and proof in medicine and science

#### **Course Requirements:**

Students are required to attend all lectures, complete the readings, and complete all assignments, and encouraged to participate in online discussion. Lectures cover much more material than the reading and attendance at them will be monitored. If you miss more than 4 lectures without a reasonable excuse, your grade will be lowered.

In addition to the lecture, this course will have a class blog which will require you to regularly make postings in relation to course topics and discussion. In it, you should respond to readings, ideas, images from class and other readings and images that you have come across outside of class. You must provide a clear, coherent analysis / response to the issues, themes, questions, debates. Do not simply describe, reiterate, paraphrase or quote, but explain what is interesting, what is theoretically convincing or questionable, what is pertinent, problematic, exemplary, etc.

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You are free to post any items you wish, as long as they relate to your entry and are thoroughly explained/analyzed: images, clips, links, music videos, newspaper articles, blogs, etc. You should have a minimum of 10 entries and/or 4,000 words.

**Assignments and grading:**

You are responsible for the material covered in lecture and in the reading. You will be evaluated on (1) the level of your engagement with the class materials (as evidenced in your written work and class participation) (2) your capacity to explain your ideas and analysis in articulate and well-written forms (3) and your ability to creatively explore these theories and methodologies. All of your written work will be graded on two primary evaluative scales (1) how well it demonstrates an understanding of the theories and methodologies of the class (2) how well it structures and articulates its argument.

There are two papers, a midterm, and a final project. These assignments will be worth the following portion of your grade:

Blog postings 20%  
paper 1 15%  
midterm 15%  
paper 2 25%  
final project 25%

The first paper will be an evaluation of early scientific practices for which you will be given a choice of several topics. The midterm will cover the material in the first half of the course and will consist of short answers and an essay question. You will choose a topic for both the final paper and final project, both subject to professor approval. Final projects will be visual in some media form (photography, website, video) and will engage with questions of science, technology, visuality, and the exercise of power in some way.

**Evaluation Rubric**

A=Excellent

This work is comprehensive and detailed, integrating themes and concepts from discussions, lectures and readings. Writing is clear, analytical and organized. Arguments offer specific examples and concisely evaluate evidence. Students who earn this grade are prepared for class, synthesize course materials and contribute insightfully.

B=Good

This work is complete and accurate, offering insights at general level of understanding. Writing is clear, uses examples properly and tends toward broad analysis. Classroom participation is consistent and thoughtful.

**C=Average**

This work is correct but is largely descriptive, lacking analysis. Writing is vague and at times tangential. Arguments are unorganized, without specific examples or analysis. Classroom participation is inarticulate.

**D=Unsatisfactory**

This work is incomplete, and evidences little understanding of the readings or discussions. Arguments demonstrate inattention to detail, misunderstand course material and overlook significant themes. Classroom participation is spotty, unprepared and off topic.

**F=Failed**

This grade indicates a failure to participate and/or incomplete assignments

**Academic Dishonesty and Plagiarism**

The relationship between students and faculty is the keystone of the educational experience at New York University in the Steinhardt School of Culture, Education, and Human Development. This relationship takes an honor code for granted and mutual trust, respect, and responsibility as foundational requirements. Thus, how you learn is as important as what you learn. A university education aims not only to produce high-quality scholars, but to also cultivate honorable citizens.

Academic integrity is the guiding principle for all that you do, from taking exams to making oral presentations to writing term papers. It requires that you recognize and acknowledge information derived from others and take credit only for ideas and work that are yours.

You violate the principle of academic integrity when you

- cheat on an exam,
- submit the same work for two different courses without prior permission from your professors,
- receive help on a takehome examination that calls for independent work, or
- plagiarize.

Plagiarism, one of the gravest forms of academic dishonesty in university life, whether intended or not, is academic fraud. In a community of scholars, whose members are teaching, learning, and discovering knowledge, plagiarism cannot be tolerated.

Plagiarism is failure to properly assign authorship to a paper, a document, an oral presentation, a musical score, and/or other materials that are not your original work. You plagiarize when, without proper attribution, you do any of the following:

- copy verbatim from a book, an article, or other media;
- download documents from the Internet;
- purchase documents;
- report from other's oral work;
- paraphrase or restate someone else's facts, analysis, and/or conclusions; or
- copy directly from a classmate or allow a classmate to copy from you.

The Steinhardt School of Culture, Education, and Human Development imposes heavy penalties for plagiarism in order to safeguard the degrees that the University grants. Cases of plagiarism are considered among the most serious of offenses.

### **STUDENT RESOURCES**

- Students with physical or learning disabilities are required to register with the [Moses Center for Students with Disabilities](#), 719 Broadway, 2nd Floor, (212-998-4980) and are required to present a letter from the Center to the instructor at the start of the semester in order to be considered for appropriate accommodation.
- Writing Center: 269 Mercer Street, Room 233. Schedule an appointment online at [www.rich15.com/nyu/](http://www.rich15.com/nyu/) or just walk-in.

### **Reading:**

Books:

Jose van Dijck, *The Transparent Body: A Cultural Analysis of Medical Imaging*

Joseph Dumit, *Picturing Personhood: Brain Scans and Biomedical Identity*

Essay readings will be posted in pdf form on Blackboard under Course Documents.

## SCHEDULE OF TOPICS, READINGS, AND ASSIGNMENTS

### **Week 1: Introduction**

#### **--Defining Visual Culture**

Reading:

Nicholas Mirzoeff, *Introduction to Visual Culture*, Chapter 1

Marita Sturken and Lisa Cartwright, *Practices of Looking*, Chapter 1

### **Week 2: Objectivity and Wonder**

#### **--Visual and Scientific Inquiry**

Reading:

Lorraine Saston Peter Galison, "The Image of Objectivity"

Martin Kemp. *The Science of Art: Optical Themes in Western Art from Brunelleschi to Seurat* (excerpt)

#### **--The Wonder of Science: Cabinets of Wonder**

Reading:

Barbara Maria Stafford, *Devices of Wonder* (selections)

Lawrence Weschler, *Mr. Wilson's Cabinet of Wonders* (selection)

### **Week 3: Anatomy and the Theater of Science**

#### **--The History of the Theater of Anatomy**

Reading:

Jose van Dijck, *The Transparent Body*, Chapter 1

Erwin Panofsky, "Artist, Scientist, Genius"

#### **--Thomas Eakins's *The Gross Clinic* and the Theater of Surgery**

Reading:

Marita Sturken and Lisa Cartwright, *Practices of Looking*, Chapter 9

### **Week 4: Theorizing Visuality and Power**

#### **--Science and Power**

Reading:

Michel Foucault, *The Birth of the Clinic*, excerpt

**--Visualizing Pathology**

Reading:

Michel Foucault, *Madness and Civilization*, excerpt

**Week 5: Nineteenth Century Spectacular Science**

**--The Dead, the Morgue, as a Site of Spectacle**

Reading:

Vanessa Schwartz, *Spectacular Realities*, Chapter 1

**--The Wax Museum**

Reading:

Vanessa Schwartz, *Spectacular Realities*, Chapter 2

Ludmilla Jordanova, *Sexual Visions*, excerpt

**Week 6: Sciences of Cataloguing and Measuring**

**--The Photograph as Catalogue**

Reading:

Allan Sekula, "The Body and the Archive"

Stephen J. Gould, *The Mismeasure of Man* (excerpt)

**--Imaging the Criminal**

Reading:

Cesare Lombroso, *The Criminal Mind* (excerpt)

Sandra Philips, *Police Pictures* (excerpt)

**Week 7: Imaging the Body's Mysterious Interior**

**--The Emergence of the X-Ray**

Reading:

Jose van Dijck, *The Transparent Body*, Chapter 5

**--The Gendered Body**

Reading:

Lisa Cartwright, *Screening the Body*, excerpt

**Week 8:**

**--Fantastic Voyages in the Body**

Reading:

Jose van Dijck, *The Transparent Body*, Chapter 6

Screening: *Fantastic Voyage*

**--Midterm Exam**

**Week 9: Bodily Interiors Beyond**

**--Microphotography and Imaging the Body at War with Disease**

Reading:

Marita Sturken, *Tangled Memories*, Chapter 7

Lennart Nilsson, *The Body Victorious* (excerpt)

**--Body Worlds and Plastinated Cadavers**

Reading:

Jose van Dijck, *The Transparent Body*, Chapter 3

**Week 10: Fetal Imagery**

**--Lennart Nilsson and the Miracle Fetal Image**

Reading:

Rosalind Petchestky, "Fetal Images: The Power of Visual Cultures in the Politics of Reproduction"

**--The Disappearance of the Pregnant Woman**

Carol Stabile, "Shooting the Mother: Fetal Imagery and the Politics of Disappearance"

Jose van Dijck, *The Transparent Body*, Chapter 6

**Week 11: AIDS and the Politics of Disease**

**--The New Politics of Disease**

Reading:

Marita Sturken, *Tangled Memories*, Chapter 4

Douglas Crimp, "Portraits of People with AIDS"

**--Images as Protest**

Reading:

Paula Treichler, "An Epidemic of Signification"

Douglas Crimp, *AIDS Demo Graphics* excerpt

**Week 12: Brain Scans**

**--Scans as Knowledge**

Reading:

Joseph Dumit, *Picturing Personhood*, Chapters 1-3

**--PET Scans, MRIs and Personhood**

Reading:

Joseph Dumit, *Picturing Personhood*, Chapters 4-6

Stephen Kosslyn, *Image and Brain: the Resolution of the Imagery Debate* (excerpt)

**Week 13: Genetics and the Digital Body**

**--Imaging Genetics**

Reading:

Jose van Dijck, *The Transparent Body*, Chapter 7

Jose van Dijck, *Imagination*, excerpt

**--Digital Genes**

Reading:

Donna Haraway, "Modest Witness @ Second Millennium"

**Week 14: Selling Pharmaceuticals**

**--Mind Drugs**

Reading:

Joseph Dumit, "Drugs for Life"

**--Selling the New Self**

Reading:

Jonathan Michel Metzler, *Prozac on the Couch*, excerpt

**Week 15: Presentation of Final Projects**