

# New Media

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## Overview

The Berkeley Center for New Media (BCNM) is a UC Berkeley initiative that supports research and teaching collaborations to better understand innovations in media. Our mission is to critically analyze and help shape innovations in new media from cross-disciplinary and global perspectives that emphasize the humanities and public interests. Since such innovations have technical, social, political, and aesthetic qualities, a full understanding of their transformative powers requires collaborative analyses.

Led by a highly interdisciplinary community of roughly 120 affiliated faculty, advisors, and scholars from 35 UC Berkeley departments, BCNM offers courses, degrees, certificates, research, and public programs about media that bring together inquiries based in Architecture, Philosophy, Film Studies, Art History, Art Practice, Performance Studies, Music, Engineering, Information, Journalism, and Law. A collaboration hub for both textual and material discourse, BCNM connects students and faculty with projects at the Berkeley Art Museum, the University Library, and many off-campus venues. BCNM is based in the College of Engineering.

All media (Latin for *middle*) facilitate transformation: by definition, media are transformative. From the stone tablet to the printing press to the Internet, media have become increasingly reconfigurable. The value of a medium is often related to its capacity for reconfiguration. To claim a medium as "new" is to posit a meaningful improvement over prior media. Thus, new media are highly reconfigurable and doubly transformative: they achieve a transformation of prior modes of transformation.

New media often produce new experiences, new behaviors, and new insights; yet new media remain deeply rooted in powerful aesthetic, cultural, and political forces. As media transform, they often distort. Sophocles observed, "Nothing vast enters the life of mortals without a curse." BCNM actively engages scholars who critically examine the opportunities and risks associated with new media and who consider how new media can constructively benefit education, political engagement, privacy, and aesthetic experience.

BCNM catalyzes research, educates future leaders, and facilitates public discourse through courses, lectures, symposia, and special events. BCNM has established cross-disciplinary faculty positions and a special program for PhD students. BCNM expands traditional academic modes of scholarship with support for unorthodox artworks, analysis, designs, and experiments.

## Undergraduate Program

The Berkeley Center for New Media offers a certificate program for undergraduate students at UC Berkeley. The certificate does not appear on a student's transcript but reflects the expertise in new media innovation that a student acquires in addition to their core major. The program includes courses on innovation, a service-learning program, and a research program, in which students work together with graduate students and faculty on joint inquiries ranging from hardware design to human impact.

## Graduate Programs

New Media (<http://guide.berkeley.edu/graduate/degree-programs/new-media/>): Designated Emphasis (DE), Graduate Certificate

## New Media

Expand all course descriptions [+] Collapse all course descriptions [-]

### NWMEDIA R1B New Media Reading and Composition 4 Units

Terms offered: Summer 2020 8 Week Session, Summer 2019 8 Week Session, Summer 2018 Second 6 Week Session

How do media shape our perception of our environment? What is at stake when we adopt or create new media? This seminar provides continued training in expository and argumentative writing, with an emphasis on new media. Satisfies the second half of the Reading and Composition requirement.

New Media Reading and Composition: Read More [+]

#### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of seminar per week

#### Summer:

6 weeks - 10 hours of seminar per week

8 weeks - 8 hours of seminar per week

10 weeks - 6 hours of seminar per week

#### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

New Media Reading and Composition: Read Less [-]

### NWMEDIA 39A Freshman Seminar in New Media 1 - 4 Units

Terms offered: Prior to 2007

This freshman seminar offers lower division students the opportunity to explore new media with a faculty member and a group of peers in a small-seminar setting.

Freshman Seminar in New Media: Read More [+]

#### Hours & Format

**Fall and/or spring:** 15 weeks - 1-4 hours of seminar per week

#### Summer:

6 weeks - 2.5-10 hours of seminar per week

8 weeks - 2-8 hours of seminar per week

10 weeks - 2-7 hours of seminar per week

#### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Final Exam To be decided by the instructor when the class is offered.

Freshman Seminar in New Media: Read Less [-]

## NWMEDIA 90 Introduction to New Media 1 - 4 Units

Terms offered: Summer 2016 10 Week Session, Summer 2016 Second 6 Week Session, Summer 2015 Second 6 Week Session

See Schedule of Classes for current section offerings. Topics introduce new media and related issues.

Introduction to New Media: Read More [+]

### Rules & Requirements

**Repeat rules:** Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1-4 hours of seminar per week

#### Summer:

3 weeks - 5-15 hours of seminar per week

6 weeks - 3-10 hours of seminar per week

8 weeks - 2-8 hours of seminar per week

10 weeks - 1.5-6 hours of seminar per week

### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

Introduction to New Media: Read Less [-]

## NWMEDIA 104 Critical Practices: People, Places, Participation 4 Units

Terms offered: Prior to 2007

Critical Practices is a hands-on studio design course where students work at the intersection of technological innovation and socially engaged art. Students will integrate a suite of digital fabrication tools with social design methods to create work that engages in cultural critique. Working with innovative technologies and radical, new art practices, this course will explore: hybrid art forms, critical design for community engagement, interventions in public spaces, tactical media, and disobedient objects. These new making strategies will reframe our notions of people, places and participation.

Critical Practices: People, Places, Participation: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of studio per week

#### Summer:

6 weeks - 10 hours of studio per week

8 weeks - 7.5 hours of studio per week

10 weeks - 6 hours of studio per week

### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

Critical Practices: People, Places, Participation: Read Less [-]

## NWMEDIA 150AC New Media and American Cultures 4 Units

Terms offered: Summer 2014 10 Week Session, Summer 2014 First 6 Week Session, Summer 2013 First 6 Week Session

This course studies the influence of new media on various cultures in the U.S. and/or the influence of American cultures on new media. Topics vary by semester. Check current Schedule of Classes or Berkeley Center for New Media web site for current course offerings (bcnm.berkeley.edu).

New Media and American Cultures: Read More [+]

### Rules & Requirements

**Requirements this course satisfies:** Satisfies the American Cultures requirement

**Repeat rules:** Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 3-4 hours of lecture per week

#### Summer:

6 weeks - 7-9 hours of lecture per week

8 weeks - 5-7 hours of lecture per week

10 weeks - 4-6 hours of lecture per week

### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

New Media and American Cultures: Read Less [-]

## NWMEDIA 151AC Transforming Tech: Issues and Interventions in STEM and Silicon Valley 4 Units

Terms offered: Fall 2020

In this course, we will study major tech industry controversies and heavily criticized tech products, policies, and effects, including technologies used at the U.S.-Mexico border, social media platforms' spread of disinformation and fake news, racial bias in algorithms, and internet trolling and harassment. We will also examine tech companies' long-running tendency to exclude women and non-Asian minorities, and how tech workers have occasionally come under fire for the industry's harms. Students will be required to brainstorm and design their own interventions into the workings of the tech sector to make it more inclusive, equitable, and diverse.

Transforming Tech: Issues and Interventions in STEM and Silicon Valley: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

### Summer:

6 weeks - 7.5 hours of lecture and 2.5 hours of discussion per week  
8 weeks - 6 hours of lecture and 2 hours of discussion per week  
10 weeks - 4.5 hours of lecture and 1.5 hours of discussion per week

### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

Transforming Tech: Issues and Interventions in STEM and Silicon Valley: Read Less [-]

## NWMEDIA C166 Critical Practices: People, Places, Participation 4 Units

Terms offered: Spring 2022, Fall 2019

Critical Practices is a hands-on studio design course where students work at the intersection of technological innovation and socially engaged art. Students will integrate a suite of digital fabrication tools with social design methods to create work that engages in cultural critique. Working with innovative technologies and radical, new art practices, this course will explore: hybrid art forms, critical design for community engagement, interventions in public spaces, tactical media, and disobedient objects. These new making strategies will reframe our notions of people, places and participation.

Critical Practices: People, Places, Participation: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of studio per week

### Summer:

6 weeks - 10 hours of studio per week  
8 weeks - 7.5 hours of studio per week  
10 weeks - 6 hours of studio per week

### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

**Also listed as:** ART C166

Critical Practices: People, Places, Participation: Read Less [-]

## NWMEDIA 190 Special Topics in New Media 1 - 4 Units

Terms offered: Spring 2021, Fall 2020, Spring 2020

See Schedule of Classes for current section offerings. Topics deal with new media and related issues.

Special Topics in New Media: Read More [+]

### Rules & Requirements

**Repeat rules:** Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1-4 hours of lecture per week

### Summer:

3 weeks - 5-15 hours of lecture per week  
6 weeks - 2.5-10 hours of lecture per week  
8 weeks - 1.5-7.5 hours of lecture per week  
10 weeks - 1.5-6 hours of lecture per week

### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam not required.

Special Topics in New Media: Read Less [-]

## NWMEDIA 191 Special Topics in New Media 1 - 4 Units

Terms offered: Fall 2020

See Schedule of Classes for current section offerings. Topics deal with new media and related issues.

Special Topics in New Media: Read More [+]

### Rules & Requirements

**Repeat rules:** Course may be repeated for credit when topic changes. Students may enroll in multiple sections of this course within the same semester.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1-1.5 hours of lecture and 1-2.5 hours of discussion per week

### Summer:

6 weeks - 3-4 hours of lecture and 3-6 hours of discussion per week

8 weeks - 2.5-3 hours of lecture and 2.5-4.5 hours of discussion per week

10 weeks - 2-2.5 hours of lecture and 2-3.5 hours of discussion per week

12 weeks - 1.5-2 hours of lecture and 1.5-3 hours of discussion per week

### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

Special Topics in New Media: Read Less [-]

## NWMEDIA 198 Directed Group Study 1 - 3 Units

Terms offered: Spring 2019, Spring 2017, Spring 2016

Course may be student-initiated or initiated by a faculty affiliate of the Center for New Media. The subject matter will vary from semester to semester. Student initiated courses will be taught by a student facilitator under the supervision of the faculty sponsor, who must be a faculty affiliate of the Berkeley Center for New Media.

Directed Group Study: Read More [+]

### Rules & Requirements

**Prerequisites:** Upper division standing

**Credit Restrictions:** Enrollment is restricted; see the Introduction to Courses and Curricula section of this catalog.

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1-3 hours of lecture per week

### Additional Details

**Subject/Course Level:** New Media/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

Directed Group Study: Read Less [-]

## NWMEDIA 200 History and Theory of New Media 4 Units

Terms offered: Fall 2021, Spring 2021, Fall 2019

This course provides a broad historical and theoretical background for new media production and practice. The class will map out theoretical approaches from different disciplines and allow graduate students to discuss and apply them to their own research projects.

History and Theory of New Media: Read More [+]

### Rules & Requirements

**Prerequisites:** Graduate standing or consent of instructor. Required for all students in the Designated Emphasis in New Media

### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of seminar per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

History and Theory of New Media: Read Less [-]

## NWMEDIA 201 Questioning New Media 3 Units

Terms offered: Spring 2022, Fall 2021, Spring 2021

Held in conjunction with the Art, Technology, and Culture Colloquium which brings internationally-known speakers to campus to present their work on advanced topics in new media: <http://atc.berkeley.edu>. Students will enhance skills in questioning new media: how to think critically about new media, how to use new media resources to research pioneering work in new media, how to form incisive questions about new media, and how to evaluate and create effective presentations on topics in new media.

Questioning New Media: Read More [+]

### Rules & Requirements

**Prerequisites:** Graduate standing or consent of instructor. Required of all students in the Designated Emphasis in New Media

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1 hour of lecture and 2 hours of colloquium per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

**Instructor:** Goldberg

Questioning New Media: Read Less [-]

## NWMEDIA 202 New Media Methods 3 Units

Terms offered: Fall 2014

In this methods course we will study key languages of new media innovation, ranging from flow charts to scripting languages and circuit diagrams. Our study method involves the creation and application of sensing devices in an urban context, and engages students in establishing chains of references which connect ground truth to data, data to information, information to people, people to actions, and actions to policies. Taking into account technical, political, cultural and literacy questions we seek to connect our data production work with information needs of underserved communities in the Bay Area region.

New Media Methods: [Read More](#) [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

### Summer:

6 weeks - 9 hours of seminar per week

8 weeks - 6 hours of seminar per week

10 weeks - 5 hours of seminar per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

New Media Methods: [Read Less](#) [-]

## NWMEDIA C203 Critical Making 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020, Spring 2019, Spring 2018

Critical Making will operationalize and critique the practice of "making" through both foundational literature and hands on studio culture. As hybrid practitioners, students will develop fluency in readily collaging and incorporating a variety of physical materials and protocols into their practice. Students will envision and create future computational experiences that critically explore social and culturally relevant technological themes. No previous technical knowledge is required to take this course. Class projects involve basic programming, electronic circuitry, and digital fabrication design. Tutorials and instruction will be provided, but students will be expected to develop basic skills in these areas to complete course projects.

Critical Making: [Read More](#) [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 2 hours of studio per week

### Summer:

6 weeks - 4 hours of lecture and 8 hours of studio per week

8 weeks - 4 hours of lecture and 4 hours of studio per week

10 weeks - 3 hours of lecture and 3 hours of studio per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

**Formerly known as:** New Media 203

**Also listed as:** MEC ENG C205

Critical Making: [Read Less](#) [-]

## NWMEDIA 204 Critical Practices: People, Places, Participation 4 Units

Terms offered: Spring 2022, Fall 2019

Critical Practices is a hands-on studio design course where students work at the intersection of technological innovation and socially engaged art. Students will integrate a suite of digital fabrication tools with social design methods to create work that engages in cultural critique. Working with innovative technologies and radical, new art practices, this course will explore: hybrid art forms, critical design for community engagement, interventions in public spaces, tactical media, and disobedient objects. These new making strategies will reframe our notions of people, places and participation.

Critical Practices: People, Places, Participation: [Read More](#) [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of studio per week

### Summer:

6 weeks - 10 hours of studio per week

8 weeks - 7.5 hours of studio per week

10 weeks - 6 hours of studio per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

Critical Practices: People, Places, Participation: [Read Less](#) [-]

## NWMEDIA 205 Locative Media 4 Units

Terms offered: Fall 2021

From postcards and maps to mobile phones, this course considers the history and future of locative media, as technological, situated, and navigational ways of expressing and understanding space, location, and bodies.

This is a theory and making course. It is designed to help students traverse the nuances between a) critically engaging with theoretical ideas and implementing the questions that they raise into their practice and b) critically engaging with the technological production of space and place, and implementing the questions that it raises into theory.

Locative Media: [Read More](#) [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

### Summer:

6 weeks - 7.5 hours of seminar per week

8 weeks - 6 hours of seminar per week

10 weeks - 4.5 hours of seminar per week

12 weeks - 4 hours of seminar per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

Locative Media: [Read Less](#) [-]

## NWMEDIA C262 Theory and Practice of Tangible User Interfaces 4 Units

Terms offered: Fall 2021, Fall 2019, Fall 2018

This course explores the theory and practice of Tangible User Interfaces, a new approach to Human Computer Interaction that focuses on the physical interaction with computational media. The topics covered in the course include theoretical framework, design examples, enabling technologies, and evaluation of Tangible User Interfaces. Students will design and develop experimental Tangible User Interfaces using physical computing prototyping tools and write a final project report.

Theory and Practice of Tangible User Interfaces: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of laboratory per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

**Instructor:** Ryokai

**Also listed as:** INFO C262

Theory and Practice of Tangible User Interfaces: Read Less [-]

## NWMEDIA C263 Technologies for Creativity and Learning 3 Units

Terms offered: Fall 2020, Spring 2015, Spring 2014

How does the design of new educational technology change the way people learn and think? How do we design systems that reflect our understanding of how we learn? This course explores issues on designing and evaluating technologies that support creativity and learning. The class will cover theories of creativity and learning, implications for design, as well as a survey of new educational technologies such as works in computer supported collaborative learning, digital manipulatives, and immersive learning environments.

Technologies for Creativity and Learning: Read More [+]

### Rules & Requirements

**Credit Restrictions:** Students will receive no credit for INFO C263 after completing NWMEDIA 290, or INFO 290.

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

**Instructor:** Ryokai

**Also listed as:** INFO C263

Technologies for Creativity and Learning: Read Less [-]

## NWMEDIA C265 Interface Aesthetics 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course will cover new interface metaphors beyond desktops (e.g., for mobile devices, computationally enhanced environments, tangible user interfaces) but will also cover visual design basics (e.g., color, layout, typography, iconography) so that we have systematic and critical understanding of aesthetically engaging interfaces. Students will get a hands-on learning experience on these topics through course projects, design critiques, and discussions, in addition to lectures and readings.

Interface Aesthetics: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

**Instructor:** Ryokai

**Also listed as:** INFO C265

Interface Aesthetics: Read Less [-]

## NWMEDIA 290 Special Topics in New Media 1 - 4 Units

Terms offered: Spring 2022, Spring 2021, Fall 2020

See Schedule of Classes for current section offerings. Topics deal with new media and related issues.

Special Topics in New Media: Read More [+]

### Rules & Requirements

**Repeat rules:** Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1-4 hours of lecture per week

### Summer:

3 weeks - 5-15 hours of lecture per week

8 weeks - 1.5-7.5 hours of lecture per week

10 weeks - 1.5-4.5 hours of lecture per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

Special Topics in New Media: Read Less [-]

## NWMEDIA 291 Topics in New Media 1 - 4 Units

Terms offered: Prior to 2007

See Schedule of Classes for current section offerings. Topics deal with new media and related issues.

Topics in New Media: [Read More \[+\]](#)

### Rules & Requirements

**Repeat rules:** Course may be repeated for credit when topic changes. Students may enroll in multiple sections of this course within the same semester.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1-2 hours of seminar and 1-2 hours of discussion per week

### Summer:

6 weeks - 2.5-6 hours of seminar and 2.5-4 hours of discussion per week

8 weeks - 2-4.5 hours of seminar and 2-3 hours of discussion per week

10 weeks - 1.5-3 hours of seminar and 1.5-3 hours of discussion per week

12 weeks - 1.5-2.5 hours of seminar and 1.5-2.5 hours of discussion per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

Topics in New Media: [Read Less \[-\]](#)

## NWMEDIA 299 Individual Study or Research 1 - 4 Units

Terms offered: Spring 2019, Spring 2018, Spring 2017

Individual study or research with Center for New Media- affiliated faculty.

This course provides the opportunity to search out and study in detail subjects unavailable in the ordinary course offerings. Unit credit will reflect comparable work per unit as regular courses, and will include both meetings with faculty sponsor and independent work.

Individual Study or Research: [Read More \[+\]](#)

### Rules & Requirements

**Repeat rules:** Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1-4 hours of independent study per week

**Summer:** 8 weeks - 1.5-7.5 hours of independent study per week

### Additional Details

**Subject/Course Level:** New Media/Graduate

**Grading:** Letter grade.

Individual Study or Research: [Read Less \[-\]](#)