

# Course Syllabus

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COLUMBIA UNIVERSITY GSAPP

FALL TERM, 2018

A6768 CONSERVATION SEMINAR; METALS.

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## COURSE DESCRIPTION

This seminar reviews the structural and decorative uses of metals in buildings and monuments. The metals to be reviewed include iron and steel; copper and copper alloys including bronze and brass; lead; tin; zinc; aluminum; nickel and chromium. The seminar will examine the history of manufacture and use; mechanisms of deterioration and corrosion; and cleaning, repair, and conservation.

## COURSE REQUIREMENTS

As a mid-term assignment course participants will:

1. Individually prepare an annotated bibliography on any aspect of architectural metals (history, manufacture, use, or conservation) **OR**
2. Work in a group to prepare a metals walking tour of a NYC neighborhood

A take home final exam will emphasize mechanisms of deterioration and methodology of repair.

## COURSE OUTLINE

Week 1. 5 September. Introduction to metals: nature and manufacture, deterioration and corrosion processes; the electromotive series; methods of protection; corrosion terminology.

Week 2. 12 September. Iron and steel; history of manufacture and use.

(Friday 14 September Field Trip: Central Park, cast and wrought iron)

Week 3. 19 September. Iron and steel; deterioration and conservation.

Week 4. 27 September. No class (APT Buffalo)

Week 5. 3 October. No class (Second year students travelling for Studio 3?)

Week 6. 10 October. Zinc

Week 7. 17 October. Copper and Copper Alloys

(Friday 19 October Field Trip: V&S Hot Dip Galvanizing)

Week 8. 24 October. Field Trip: Michigan Ornamental Metals and Hoboken Terminal (*or 26 October Field Trip: Michigan Ornamental Metals and Hoboken Terminal*)

Week 9. 31 October. Lead and Tin.

Week 10. 7 November. Nickel, Chromium, Aluminum

Week 11. 14 November. Field trip: "GE" Building, Waldorf, Rock Center, Top of the Rock

Week 12. 21 November. Thanksgiving break. No class.

Week 13. 28 November. Guest speaker. To be announced.

Week 14. 5 December. Course review. Current conservation problems and projects.