1. Subject number and title
4.566 Advanced Projects in Digital Media

2. Date(s) offered
2024 Fall Semesters

3. Credits
2-0-4, 2-0-7 or 2-0-10 Units

4. Type of subject (lecture, seminar, studio, workshop, lab)
Individual tutoring and group seminar

5. Instructor(s)
Takehiko Nagakura

6. Prerequisites if any
4.562, 4.564 or permission of the instructor upon review of project proposal

7. Subject overview/description
This course provides opportunities for a student to develop an independent research project with a topic related to digital design media. The primary audience are students with background in spatial design who have already acquired basic technical foundation in advanced graphics software and/or graphics programming languages through the previous classes at MIT. A student in a research degree program in architecture can use this course to start up a pilot research project prior to his or her thesis semester.
The class runs in two different modes. A student must declare a clear frame of a research project at the beginning of the semester upon consultation with the instructor. There will be weekly individual desk critic sessions to help each student advancing an independent research project. At mid-term and the end of the semester, review sessions will be held communally to share the progress and outcome of individual projects. At other meeting times throughout the semester, there will be occasional short presentations by the instructor or guest speakers who will introduce a variety of research projects and different approaches to solutions.
The choice of student independent research topics includes:
    1. Design tool software/platform development
    2. Design knowledge representation and its digital implementation
    3. Advanced digital design/visualization project
    4. Development of interactive hardware device for design and presentation
    5. Other topics related to the use of digital technology in architectural design

8. Schedule of topics, tests, and due dates for major assignments (subject to change)

Week 1: Introduction
Week 2: Students meet individually with the instructor to prepare project proposal
Week 3: Student Project Proposal
Week 4: Individual Critic (sign-up sheet available)

Week 5: Individual Critic (sign-up sheet available)
Week 6: Individual Critic (sign-up sheet available)
Week 7: Individual Critic (sign-up sheet available)
Week 8: Individual Critic (sign-up sheet available)
Week 9: Student Presentation - Mid-term Review
Week 10: Individual Critic (sign-up sheet available)
Week 11: Individual Critic (sign-up sheet available)
Week 12: Guest Speaker/Seminar (TBA)
Week 13: Individual Critic (sign-up sheet available)
Week 14: Student Presentation - Final Review

9. Learning objectives
See the overview above.

10. Reading Assignments
No default list. Readings are suggested to suite each individual student project.

11. Completion requirements and grading criteria
Each student is required to make presentations (proposal, mid-review and final review) of his or her project and participate in the discussions during the group sessions. At the end of the semester, an online page is required to be set up in the form of an instructor provided template, and to be filled with graphics to illustrate the project with summary text. Please see the class home page for examples from previous years.
https://cat2.mit.edu/4.566

Grades are based on the project's conceptual level of exploration, technical finesse, completeness craftsmanship and aesthetic quality as well as participation to the class. There is no examination.