

# Design of Wood Structure

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|--|-----------------------|
| Course name : Design of wood structure | Unit : 2 hrs/week : 2 |
| Year: Junior                           | Course: Optional      |
| Classroom:                             | Office Hours:         |
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## A、Course Description :

Design of wood structure provides fundamental concepts, knowledge and techniques for students who are interested in wooden architecture. The contents cover basic design logics, floor, wall and roof designs. The level of this course meets for the students who have learned basic drafting and design.

At first, basic design logics will be introduced and focused on development of student's ability to plan or remodel wooden houses. After learning design of floor, wall and roof, some styles of wooden architecture and design of visual reality will be discussed and practiced in details.

## B、Teaching Goals :

The objectives of this course are to intrigue student's interests, help student appreciate the underlying design logic, help students plan wooden architecture, help students arrive at answer to any practical design problem, and raise ceaseless thought about the best use of space available for wooden architecture.

It is hoped that this course will enrich the house design concepts for those who will not study wooden architecture further and offer robust and solid foundation for those who study wooden architecture more intensively and professionally.

## C、Class Schedule for the Fall semester in 2010

| Schedule | Topic           |
|----------|-----------------|
| Week 1   | Overview.       |
| Week 2   | Design of floor |

|         |   |
|---------|---|
| Week 3  | Design of floor                                   |
| Week 4  | Design of wall.                                   |
| Week 5  | Design of wall.                                   |
| Week 6  | Design of roof.                                   |
| Week 7  | Design of roof.                                   |
| Week 8  | Design of roof.                                   |
| Week 9  | Midterm examination                               |
| Week 10 | Styles of wooden architecture.                    |
| Week 11 | Styles of wooden architecture.                    |
| Week 12 | Styles of wooden architecture.                    |
| Week 13 | Design of visual reality for wooden architecture. |
| Week 14 | Design of visual reality for wooden architecture. |
| Week 15 | Design of visual reality for wooden architecture. |
| Week 16 | Design of visual reality for wooden architecture. |
| Week 17 | Design of visual reality for wooden architecture. |
| Week 18 | Final examination                                 |

## D 、Grade :

1. Presence, homework or reports 30%
2. Midterm test 30%
3. Final test 40%

## E 、References :

1. Spence, William P. (2003) Building your dream house, Sterling Publishing Co., Inc.
2. Breyer, Donald E. (1993) Design of wood structure (3<sup>rd</sup> ed.), McGraw-Hill, Inc.
3. Feirer, John L. and Gilbert R. Hutchings (1986) Carpentry and building construction (3<sup>rd</sup> ed.) Glencoe Publishing Company.