

## Clackamas Community College

### Online Course/Outline Submission System

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#### Section #1 General Course Information

**Department:** Manufacturing

**Submitter**

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**Course Prefix and Number:** GBC - 101

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**# Credits:** 2

**Contact hours**

Lecture (# of hours):

Lec/lab (# of hours): 44

Lab (# of hours):

Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

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**Course Title:** Introduction to Green Building

**Course Description:**

This course introduces students to the tools and techniques of carpentry. It is intended to teach the elements of measurement, materials, layout and the safe use of hand and power tool in shop and field environments. It explores green building construction, materials and rating systems used in the industry.

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**Type of Course:** Career Technical Preparatory

Is this class challengeable?

**Yes**

Can this course be repeated for credit in a degree?

**No**

Is general education certification being sought at this time?

**No**

Does this course map to any general education outcome(s)?

**No**

Is this course part of an AAS or related certificate of completion?

**No**

Are there prerequisites to this course?

**No**

Are there corequisites to this course?

**No**

Are there any requirements or recommendations for students taken this course?

**No**

Are there similar courses existing in other programs or disciplines at CCC?

**No**

Will this class use library resources?

**Yes**

**Have you talked with a librarian regarding that impact?**

**No**

Is there any other potential impact on another department?

**No**

Does this course belong on the Related Instruction list?

**No**

GRADING METHOD:

A-F or Pass/No Pass

**Audit: Yes**

When do you plan to offer this course?

✓ **Not every year**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

**No**

Will this course appear in the college catalog?

**No**

Will this course appear in the schedule?

**Yes**

**Student Learning Outcomes:**

Upon successful completion of this course, students should be able to:

1. demonstrate the ability to measure and identify construction tools,
2. demonstrate accurate measurements and apply measurements to construction layout and prints,
3. use hand tools and power tools,
4. work safely in a construction environment and power tools,
5. describe different building systems and how energy plays a role in different construction types,
6. describe different construction types, such as stick frame, mobile home, concrete foam, straw bale and other construction styles;
7. describe changes building layouts and systems to maximize energy efficiency,
8. use green building materials used in construction,
9. describe green building ratings used in the industry and how they are used,
10. construct their own project either as a team or individually.

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***This course does not include assessable General Education outcomes.***

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**Major Topic Outline:**

1. Definition of terms & units used in the field.
2. Utilizing conversion factors to change from imperial to metric and use mathematics to calculate angles and cut sheets.
3. What is green construction, how is it similar and different from regular construction.
4. Tool knowledge, usage and safety of tools in the field.
5. Building systems used in green construction and energy consumption in these systems.
6. Environmental impact of conventional construction vs green alternative construction options.
7. Green construction building materials used in the field.
8. Green building rating systems.
9. Costs related to green building vs. conventional building.

**Does the content of this class relate to job skills in any of the following areas:**

- |                                      |           |
|--------------------------------------|-----------|
| 1. Increased energy efficiency       | <b>No</b> |
| 2. Produce renewable energy          | <b>No</b> |
| 3. Prevent environmental degradation | <b>No</b> |
| 4. Clean up natural environment      | <b>No</b> |
| 5. Supports green services           | <b>No</b> |

Percent of course: 0%

First term to be offered:

**Specify term:** Spring 2017

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