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**Ohio Articulation Number (OAN)**
**Course Submission Form**
**2005-2006**

College/University Owens Community College

Course(s) Submitted(Title & Course #) CIV 110 Construction Materials I for
Ohio Articulation Number OET 018 Construction Materials Testing

Date 28 October 2006 Course 1 of a 1 Course OAN mapping.

Name and title of individual submitting on behalf of the college/university

Name Bruce Busby Title Vice President for Academic Services

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Fax (567) 661-7366

Credit Hours 3 qtr _____ sem X
Lecture Hours 2
Laboratory Hours 3 (if applicable)
Pre-Requisites(s) Course work (if applicable)
**Prerequisites**: MTH 095 or MTH 110 or equivalent

Placement Score (if applicable)
(Name of test)
(Domain) (Score)

Catalog/Course Description (Includes Course Title and Course #)

A consideration of the characteristics of construction materials used extensively within the ARCHITECTURAL and CIVIL ENGINEERING fields. Materials such as wood, concrete, steel, masonry, and plastics along with building systems will be discussed as to their applications and limitations. Labs to support the understanding of material properties will be done using ASTM procedures wherever possible.

## Texts/Outside Readings/Ancillary Materials

**Text**: **Construction – Principles, Materials, & Methods**, Olin, Schmidt, Lev
John Wiley & Sons, Inc. 2001

**References**: **Sweets Catalog File**, McGraw Hill, Latest available

**Manual of Practice**, Construction Specifications Institute, 2005

## Course Objectives and/or Plan of Work

**Course Objectives**: The objective of this course is to present to the student an overview of t principal materials involved in the building construction environment. The intent is to provide to student information on recently developed products as well as the tried and tested products that t should be familiar with. The student, with the aid of the text as a guide, shall be tested on the bas understanding of the material covered and evaluated on a grading scale indicated in this syllabus

**Lab Procedures**: Where applicable, each individual lab assignment will be suppo by a lab report to be submitted in a format indicated by the instructor. This report is due one wee from the date of the assignment with no make-up labs unless approved by the instructor. The assignment may be supported by calculations, graphs, or any other items as needed. A paper on subjects concerning materials or failures will be assigned and will count as three laboratory assignments. A presentation on a material or construction process will also be required.

## Description of Assessment and/or Evaluation of Student Learning

**Grading Procedure:**

| | |
|---|---|
| Tests (2) | 40% |
| Homework & Labs | 40% |
| Quizzes | 20% |

**Grading Scale**:

90 – 100 %
80 - 90 %
70 - 80 %
60 - 70 %
0 - 60 %

## Master Syllabi and Working Syllabi (if both are used)

**SYLLABUS:** CIV 110 Construction Materials I Fall/Spring 2007
**Course Number:** CIV 110 -004
**Credit hours:** 3
**Lecture / Lab hours:** 2 Lecture / 3 Lab
**Last Day to Add:** See Owens web page.
**Last Day to Drop:** See Owens web page.

**2006 Catalogue Data:** A consideration of the characteristics of construction mate

used extensively within the Architectural and Civil Engineering fields. Materials such a wood, concrete, steel, masonry and plastics along with building systems will be discusse to their applications and limitations. Labs to support the understanding of material prop will be done using ASTM procedures whenever possible.

**Textbook:** *Olin's Construction: Principles, Materials and Methods*, Leslie Simmons, RA, CSI, Eighth Edition, John Wiley & Sons.

**References:** *Sweet's Catalogue File*, McGraw Hill 2000

**Instructor:** Leonard Michaels,
See Instructor`s Hand-out for Office Hours, and Telephone #`s

**General Information:** For information on FERPA, Cheating and Plagiarism, Assessment of Student Learning Outcomes, please refer to the appropriate sections of th current Owens community College Catalogue online.

**Disability Resources Services:** If you have a disability or acquire one, you may be entitled to receive individualized services and/or accommodations intended to assure yo equal opportunity to participate in and benefit from the program. To receive more information or to apply for services, please contact the Disability Resources Services Of

**Graduation Requirements:** The Associate Degree is awarded upon successful comple of the required courses in a technology. The student must maintain an overall grade poin average of 2.0. A point average of 2.0 is also required in the technical courses of all technology programs (see college catalogue).

**Course Objectives:**

The general objective of this course is to present to the student an overview of the princi materials involved in the building construction environment. The student will also be presented with information on recently developed products, as well as the time-tested construction products and methods.

**Student Learning Outcomes:**

- The student will be able to understand the proper use of materials, as applied to construction.
- The student will understand the historic and technical development of materials a construction assemblies
- The student will develop ability to do the applicable research necessary to efficie seek appropriate materials for specific uses in construction.

**Equipment Required:** Electronic calculator, work clothes appropriate for labs..

**Lab Procedures:**

Where applicable, each individual lab assignment will supported by a lab report to be submitted in a uniform format, due at the beginning of the next class session. The assigr may be supported by calculations, graphs, or other items as may be appropriate to the sp laboratory assignment.

**Grading Procedures:** Quizzes, Mid-Term, and Final are graded each on a 100 point bas

A Research Paper will be required, subject to be approved by the instructor.

**Grade Breakdown**:

| | | | |
|---|---|---|---|
| Lab Assignments | 52% | A | 90-100% |
| Research Paper | 08% | B | 80-89% |
| Quizzes and Exams | 40% | C | 70-79% |
| Total | 100% | D | 60-69% |
| | | F | Below 60% |

**General Rules:**

1. No smoking, drinking or eating in the classrooms or laboratories. This includes smokeless tobacco.
2. Beepers and Cellular Phones are to be turned off during class.
3. Regular attendance is required. You probably will not pass this class without it!
4. No make up quizzes or tests will be given, except for special situations approved by instructor.
5. In the event of absence from class it is the student`s responsibility to make up missed work.
6. See the college handbook for policies on cheating.

Semester Schedule

| week | date | lecture topics | laboratory | due dates |
|---|---|---|---|---|
| 1 | Jan 22 | Intro. Research Topics, Construction Roles | " To Engineer " video and report | |
| 2 | 29 | Site Construction | Moisture I | |
| 3 | Feb 5 | Concrete I | Moisture II | |
| 4 | 12 | Concrete II | " Super Bridge " video and report | Research topic due |
| 5 | 19 | Masonry I | **Quiz I** / " Concrete Testing " ASTM video | |
| 6 | 26 | Masonry II | Concrete I.<br>Graphic symbology for concrete and construction materials used to identify different building materials on drawings. | Research abstract due |

| | | | | | |
|---|---|---|---|---|---|
| 7 | Mar 5 | Metals I | Concrete II<br>Comparison of building and highway concrete construction. | | |
| | 12 | SPRING BREAK | | | |
| 8 | 19 | Metals II | **Midterm** / Materials Field Report time | | |
| 9 | 26 | Wood & Plastics | Ethics and report | | |
| 10 | Apr 2 | Thermal & Moisture I | Thermal & Moisture II - lecture | | |
| 11 | 9 | Finishes I | **Quiz 2 /** Emissivity | | |
| 12 | 16 | Finishes II | CSI-Sweets & report | | |
| 13 | 23 | Doors & Windows | Materials Field Report presentations | Research paper due | |
| 14 | 30 | Specialties | Special Construction - lecture | | |
| 15 | May 7 | | **Final Exam** | | |

Note: Research paper will not be accepted or graded after the due date.

The Instructor reserves the right to revise this syllabus as deemed necessary IN WRITING and will communicate revisions.

**Ohio Board of Regents**
**Civil/Construction Engineering TAG learning Outcomes**
**Construction Materials Testing (2 semester hours) OET 018**
Prerequisite: Placement beyond basic math

| Essential Outcomes: | Where Found |
|---|---|
| 1. Employ sound testing procedures on construction materials | CIV110 & MET 136 |
| 2. Understand the relevant properties of construction materials | CIV110 &111&Met136 |
| 3. Communicate scientific information in a proper format | CIV110 &111&Met136 |
| 4. Identify the literature available for development and testing of construction materials | CIV110 & CIV111 |

Additional Documentation

| OBR Use | Action |
|---|---|
| Approved | |
| Additional Information Requested | |
| Rejected | |
| Date | |

**Ohio Articulation Number Form Directions**

This form is used to submit your course information to the Ohio Board of Regents, for all courses that make up OAN requirements. This document is a form, so the only fields that need to be filled in can be. When you open this, make sure the top of the screen, where the name of the document is displayed, says "Document1" or something similar to that. When you open this form from a location other than inside of word, it creates a blank template to fill in. Please fill it in with the appropriate course information from your institution. All of the fields in this document are expandable, and will grow to fit as much data in them as you need. Note that these fields are implemented as MS Word tables. Keep that in mind as you are copying and pasting between your syllabi and this form.

Once you are done entering your course information, you need to save this file. Since Word opened a blank version of this file, you will need to rename it to save it. Under file, choose "Save as" and then enter the name of the file. The naming scheme for this form is Institution-Year-OAN number-Course Title.

Example, if you were ABC Community College, and you were submitting your Calculus110 course, the name of the file would be ABC-2005/06-OMT005-Calculus110. If two (or more) courses are required to fulfill that same OAN, you would submit ABC-2005/06-OMT005-Calculus110Calculus111.

When you are done with your submissions, please send them electronically to the Ohio Board of Regents at atpanels@regents.state.oh.us so we can keep your information on file.

If you encounter any problems or have any questions, please contact any of the individuals listed bellow:

Jim Ginzer (614) 752-9486 jginzer@regents.state.oh.us

Sam Stoddard (614) 752-9532 sstoddard@regents.state.oh.us

Nick Wilson (614) 466-4158 nwilson@regents.state.oh.us