Career Readiness and Fitness Training, **CRAFT**: This secondary course is focused on connecting career awareness, employability skills, and interdisciplinary learning standards utilizing the standards for authentic instruction. This document will emphasize fourth year math expectations connected to the construction and skilled trades industries. Meeting all of the standards listed below will require an entire school year.

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<tbody>
<tr>
<td>ELA Writing, Speaking, and Representing</td>
<td>ELA Reading, Listening, and Viewing</td>
<td>ELA Literature and Culture</td>
<td>ELA Language</td>
<td>Math Numerical Algebraic Operations and Analytical Thinking</td>
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<tr>
<td>Work Keys Applied Math Skills Applied Technology</td>
<td>Work Keys Listening Skills Reading for Information</td>
<td>Work Keys Teamwork Skills</td>
<td>Work Keys Writing Skills</td>
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<td>Integration Teacher Notes</td>
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**Unit: Includes: CRAFT I, unit Introduction to Careers, Construction Math, 3 wks. 45 hrs.**

<table>
<thead>
<tr>
<th>CES 1 Applied Academic Skills</th>
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<tr>
<td>CES 2 career planning</td>
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<tr>
<td>CES 3 develop, present info</td>
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<tr>
<td>CE Strands: 1,2,4</td>
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<tr>
<td>CE=ELA</td>
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<tr>
<td>CES=Career employability skills</td>
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<td>CE1= writing, speaking, and visual expression</td>
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<tr>
<td>CE2= Reading, listening, and viewing</td>
</tr>
<tr>
<td>CE4= Language</td>
</tr>
<tr>
<td>TCH 3,6</td>
</tr>
<tr>
<td>MS= Math</td>
</tr>
</tbody>
</table>

**TLW= the learner will**

- TLW read, understand, explain to peers and sign Student Code of Conduct, also compare to workplace employment codes provided by speakers.
- CE1.1.2 Know, use variety of prewriting strategies to generate, focus, organize, map, brainstorm, outline, and summarize.
- CE4.1.2 TLW understand and organize info from various sources, organize and chart career options, goals, strategies, education needed, salaries, labor mkts. stats.
- TLW analyze career assessments for personal strengths, goal setting
- TLW compare and contrast careers, salaries, job market
- TLW develop and print EDP document for career and study plans
- CE2.1.7 Demonstrate understanding of written, spoken, visual info restating, paraphrasing, summarizing, critiquing, posing personal response.
- TLW design presentation on career search and knowledge, skills, postsecondary work needed to achieve the field
- CE1.2.2 Form, revise, drafts to convey meaning, draw responses, self reflection, reading ones own work, deleting, reorganizing, addressing potential readers questions. **Portfolio.**
- TLW understand components & purpose of portfolio development, usage of daily journal/log and begin compiling course documents
- MSI 1.1.1.2 TLW understand whole numbers, rounding, place values, problem solving, add, subtract, divide, multiply, fractions, percents, and calculate
- Complete pre/post test initial assessment
- Lecture and establishment of course outline, ground rules, student learning framework, performance assessments ie: portfolio, exit project
- Internet search
- Library and print research
- Guided practice and Independent practice
- Introduction to written texts
- Math Texts and assessments
- Unit one 1.1, 1.3
- Guided practice and independent practice
- Real world connections to Construction professionals as speakers/mentors etc.
- Hands on construction problem using calculator
- Technology usage
- Career Cruising (www.careercruising.com)
- www.michigan.gov
- www.bls.gov
- Newspapers
- www.monster.com
- www.careerbuilder.com
- Workplace employment applications, forms, codes or conduct etc.
- Creating Portfolios pg. 1-9
- Creating Portfolios for Success in School, Work, and Life, M. Kimeldorf, 1994
- Flip charts/ white boards

- CRAFT Pre/post test initial assessment CRAFT curriculum back of text
- Student written and oral presentation
- Navigation on Career Cruising site, EDP printed plan, parental or guardian signature on EDP
- Portfolio initial development
- Creating Portfolios pg. 1-9
- Daily journal/log
- Math Unit one assessment chap 1.1- 1.3 Math for Carpentry, Const. Trades 2nd ed.
- TLW demonstrate understanding of whole numbers, rounding, add, subtract, multiply, divide, and calculator usage.
- Construction Trades Math curriculum, pgs. 1-22 including assessments with answer key in back of text or on the DVD
- Speaker/contractor hard copy or online student application for workplace completion
- Teacher observation

K. Rypkema Fall 2009
### Integration Teacher

**Notes**  

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### Curriculum

**What do we want students to learn?**

- **Unit: 2 includes CRAFT I units 2 & 3 Legal, Safety, Professional Character, Communication soft skills, 3 wks. 45 hrs. (Financial component moved to unit 3)**

  - **CES 5 Personal management**
  - **CES 6 Organizational Skills**
  - **CES 9 Understanding systems and technology**
    - **CE 1, 4 M II 1, 2, 3**
    - **M III 1, 2, 3**
    - **M IV.1**
    - **TCH 3, 6**
    - **WKRFI 5**
    - **WKL 5**
    - **WKT 5**
    - **SSIV 1**

- **CE1.3.5 form the outset, identify, assess audience expectations and needs; consider style, form, content based on safety materials, and how to communicate safety concerns effectively to multiple audiences.**
- **TLW read, understand, recognize, articulate workplace requirements re: safety, alcohol use, discrimination etc.**
- **TLW accurately complete workplace forms re: hiring, W2’s, Job performance, codes of conduct.**
- **CE1.2.2 Write, speak and visually represent to develop self awareness and insight, logs, portfolios.**
- **TLW complete a daily journal of all work completed. (real world connection daily construction log for projects)**
- **CE4.1.3 Use a range of linguistic applications and styles for accomplishing different rhetorical purposes ie: persuading others, changing opinions (budget business plans) speaking in public; discussing issues with peers (business plans or project plans)**
- **SSIV.1 TLW recognize four key component areas of a budget plan, (time, money, materials, human resources)**
- **CES9 TLW demonstrate understanding of business systems**
- **MII.2 TLW complete sample project budget**
- **TLW understand quality communication and workplace skills, ie: listening, attendance, follow through, etc.**
- **MII.3, MIII.1 MTLW know, and demonstrate knowledge and ability in calculations of mathematics for construction and carpentry**
- **MIV.1 TLW experience counting and measuring activities to develop an intuitive sense about numbers and their properties**
- **CE1.2.2 TLW demonstrate knowledge of portfolio components by completing activities in Creating Portfolios text**

- **Math texts and assessments, Practical Problems for Carpenters Pgs. 1-63 answer key back of book**
- **Guided practice and independent practice**
- **Tools of Success Const. pt. 1, module 2,4, part 2, module 5, part 3, module 11**
- **Lecture, reading, and discussion**
- **Speakers/contractors/mentors**
- **Groupwork and presentations written and oral designing budgets with charts**
- **Creating Portfolios, student workbook activities**
- **Journal/log writing and reflection**
- **Fields trips to HR departments**
- **Technology usage**

- **MIOSHA Training manuals, pamphlets etc. from National Electrical Contractor Association**
- **Construction Systems, Goodheart Wilcox Publishers, S. Holland Illinois**
- **Core Curriculum Trainee Guide, 2000, National Center for Construction Education and research, Prentiss Hall, New Jersey**
- **Practical Problems in Mathematics for Carpenters, Huth, 1985 6" ed.**
- **Hand-outs Systems map (explanation of internal and external customers)**
- **Fishbone diagram (Used for budget planning)**
  - **Ex. Actual const. project budget**
  - **Computer usage, online research**
  - **Flip charts/ white boards**

### Instructional Strategies

**How will we deliver the curriculum?**

- **MIOSHA Training manuals, pamphlets etc. from National Electrical Contractor Association**
- **Construction Systems, Goodheart Wilcox Publishers, S. Holland Illinois**
- **Core Curriculum Trainee Guide, 2000, National Center for Construction Education and research, Prentiss Hall, New Jersey**
- **Practical Problems in Mathematics for Carpenters, Huth, 1985 6" ed.**
- **Hand-outs Systems map (explanation of internal and external customers)**

### Resources

**What materials/resources will we need to ensure mastery?**

- **MIOSHA Training manuals, pamphlets etc. from National Electrical Contractor Association**
- **Construction Systems, Goodheart Wilcox Publishers, S. Holland Illinois**
- **Core Curriculum Trainee Guide, 2000, National Center for Construction Education and research, Prentiss Hall, New Jersey**
- **Practical Problems in Mathematics for Carpenters, Huth, 1985 6" ed.**
- **Hand-outs Systems map (explanation of internal and external customers)**

### Assessment

**How will we know if students learn?**

- **MIOSHA Training manuals, pamphlets etc. from National Electrical Contractor Association**
- **Construction Systems, Goodheart Wilcox Publishers, S. Holland Illinois**
- **Core Curriculum Trainee Guide, 2000, National Center for Construction Education and research, Prentiss Hall, New Jersey**
- **Practical Problems in Mathematics for Carpenters, Huth, 1985 6" ed.**
- **Hand-outs Systems map (explanation of internal and external customers)**

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K. Rypkema Fall 2009
### Integration Teacher

#### Notes

**Curriculum**

*What do we want students to learn?*

- CES 5, Professional character & Communication
- CES 4, Problem solving
- CES 7, Teamwork
- CES 8, Negotiation Skills

#### Instructional Strategies

*How will we deliver the curriculum?*

- **Lecture**
- **Reading and discussion**
- **Guided and independent practice**
- **Speakers/contractors/bankers/mentors**
- **Group work/presentations**
- **Daily journal/log**
- **ELAVI 4 Portfolio development**
- **Instruction from text: **Tools for Success**, pgs. 63-112**
- **Practical Problems in Mathematics for Carpenters, pgs. 63-88**
- **Hands on construction module, Ch. 3 **Applied Construction Math**, national Center for Construction Education and Research NCCER, 2006, Prentiss Hall**
- **Technology usage**

#### Resources

*What materials/resources will we need to ensure mastery?*

- **Team-build Behavioral Character Assessment, overhead projector speaker presentation**
- **Practical Problems for Mathematics for Carpenters, Huth, 1985, Delmar pub. NY**
- **Applied Construction Math, NCCER, 2006, Prentiss Hall**

#### Assessment

*How will we know if students learn?*

- **Tools for Success, activities in Part 2, module 5, 6 pgs. 63-112 including assessments**
- **Practical Problems in Mathematics for Carpenters, pgs. 63-88**
- **How to do Your Banking MSUFCU speaker presentation and booklet activities**
- **Completed IAPIE template (CRAFT Bklt, att.#3)**
- **Documented research into resolution of problem**
- **Applied Construction Math, Ch 3, real estate pricing, research, interviews, economic factors on mkt.**
- **Students prioritize assignments**

#### Unit: 3 CRAFT 1 units 3 cont. & 4, Communication Soft Skills, Teamwork, Leadership, Problem-Solving Skills, Financial planning 3 wks, 45 hrs.

| CES 5, Professional character & Communication | **TLW** understand the importance of and demonstrate reliable attendance, and follow thru on assignments. | **TLW** understand the importance of and demonstrate reliable attendance, and follow thru on assignments. |
| CES 4, Problem solving | **CE1.2.4 Assess strengths, weaknesses, and development as a writer** | **CE1.2.4 Assess strengths, weaknesses, and development as a writer** |
| CES 7, Teamwork | **TLW prioritize tasks for goal setting develop personal plans EDP process review, revise, print discuss with group include in portfolio** | **TLW prioritize tasks for goal setting develop personal plans EDP process review, revise, print discuss with group include in portfolio** |
| CES 8, Negotiation Skills | **CE4.2.1 Use sentence structures and vocabulary effectively within different modes groups, places ie workplace written, oral, formal, informal** | **CE4.2.1 Use sentence structures and vocabulary effectively within different modes groups, places ie workplace written, oral, formal, informal** |
| CE 1,4 | **TLW understand and articulate components of communication and workplace ethics** | **TLW understand and articulate components of communication and workplace ethics** |
| MI 2 | **CE1.3.7 Participate collaboratively and productively in groups, fulfill roles. Responsibilities, follow instructions, acknowledging and building on ideas of others answer questions, solve problems** | **CE1.3.7 Participate collaboratively and productively in groups, fulfill roles. Responsibilities, follow instructions, acknowledging and building on ideas of others answer questions, solve problems** |
| MIII.1,2,3 WKT5  | **TLW know and demonstrate teamwork skills and leadership skills as well as adaptability to system change** | **TLW know and demonstrate teamwork skills and leadership skills as well as adaptability to system change** |
|  | **TLW know and demonstrate self-directed learning principles (for on the job performance)** | **TLW know and demonstrate self-directed learning principles (for on the job performance)** |
|  | **CE1.2.2.1 Write, speak, use images, graphs, templates to understand and discover complex ideas.** | **CE1.2.2.1 Write, speak, use images, graphs, templates to understand and discover complex ideas.** |
|  | **TLW understand and apply the components of the problem solving model IAPIE (identify, analyze, plan, implement, evaluate) to a real world work related problem** | **TLW understand and apply the components of the problem solving model IAPIE (identify, analyze, plan, implement, evaluate) to a real world work related problem** |
|  | **TLW identify typical work related problems specific to construction industry** | **TLW identify typical work related problems specific to construction industry** |
|  | **CE1.3.7 TLW know and articulate the importance of multiple perspectives in teamwork and problem solving** | **CE1.3.7 TLW know and articulate the importance of multiple perspectives in teamwork and problem solving** |
|  | **MI.2 TLW describe relationships among variables, analyze, compare sources of change** | **MI.2 TLW describe relationships among variables, analyze, compare sources of change** |
|  | **MIII.1 TLW collect, organize, and present data to substantiate problem solving IAPIE** | **MIII.1 TLW collect, organize, and present data to substantiate problem solving IAPIE** |
|  | **MIII.2 TLW describe and interpret data to support problem solving resolution** | **MIII.2 TLW describe and interpret data to support problem solving resolution** |
|  | **MIII.3 TLW defend inferences about data, make predictions, demonstrate confidence in resolution** | **MIII.3 TLW defend inferences about data, make predictions, demonstrate confidence in resolution** |
• Complete work, continue file procedures within portfolio, and daily journal/log entries
• Teacher observation

END OF FIRST QUARTER
## Quarterly focused instructional strategies, processes, skill development, or content expectations

### Unit: CRAFT 1 unit 5 Conflict resolution, Problem based authentic case studies. 3 wks, 45 hrs.

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Instructional Strategies</th>
<th>Resources</th>
<th>Assessment</th>
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</table>

#### 2nd Quarter

- **CE1, 2 M.I.I.1, M.I.I.2, M.I.I.3 WKT 5 TCH 1, 3 SSIV 4**
  - **CE1.2.1** Write, speak, use images, graphs to understand and discover complex ideas.
  - **TLW** apply the IAPIE problem solving model to a hands on construction project
  - **CE1.3.4** Develop extend argument, or exploration of topic, analyzing different perspectives, convey ideas, defend position, provide relevant evidence, anticipate concerns, counterclaims
  - **TLW** understand the components of conflict resolution (compromise, consensus, mediation, creative prob-solve)
  - **CE2.1.5** Analyze, evaluate the components of multiple organ. Patterns, compare contrast cause effect, prob-solve Const. project plans and development
  - **TLW** Read and understand the processes involved in managing a construction project
  - **SSIV 4 TLW** work in teams to research construction project bids
  - **TLW** research, analyze, compare, and contrast various resources for conflict resolution in the workplace.
  - **CE2.1.11** Demonstrate social skills of audience and group discussion, team behaviors, civility in sharing, respectful ways of posing questions and
  - **Technology usage**

- **Lecture, reading, and discussion**
- **Teamwork and partnering**
- **Speakers/contractors/mentors**
- **Text exercises and case studies**
- **Guided and independent practice**
- **Online and computer research and document development**
- **Individual close reading and discussion, const. project, research and presentation of actual bids from newspaper, online or personal contractor interview**
- **Daily journal/log**
- **Portfolio development**
- **Hands on construction project**
- **Applied Construction Math, 2006, Prentiss Hall, Ch. 2**
- **Applied Construction Math, 2006, NCCER, Prentiss Hall**
- **Tools For Success, S. Rigolosi, 2001, NJ**
- **Creating Portfolios, M. Kimeldorf, 1994, Free Spirit, MN.**
- **Managing the Construction Project, T. Trauner, 1993, U.S.**
- **Newspaper, computer (const. bids)**
- **Practical Problems in Mathematics for Carpenters, Hath, 1985**
- **Applied Construction Math, 2006, NCCER, Prentiss Hall**

- **Tools for Success, Pgs. 147-178 inc. case studies and partner work**
- **Creating Portfolios, pgs. 35-50**
- **Daily journal/log**
- **Portfolio development**
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- **Daily journal/log**
- **Creating Portfolios, pgs. 35-50**
- **Managing the Construction Project, ch. 1**
- **Discussion Q&A const. bids research and findings**
- **Team conflict resolution presentations (train the trainer)**
- **Applied Construction Math, Ch 2 document bldg. measurements for comparison of sq. footage.**
- **Practical Problems in Mathematics for Carpenters. Pgs. 89-111 completed text activities**
<table>
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<th>consensus resolution.</th>
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<tbody>
<tr>
<td>• TLW work in a team to teach the class a method for conflict resolution using written or oral team presentations.</td>
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<tr>
<td>• MI.1 TLW Read, manipulate, explore basic principles of surface measurement</td>
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<tr>
<td>• MIII.1TLW demonstrate computer usage and creativity in documented work</td>
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</tbody>
</table>
## Integration Teacher Notes

### Curriculum

**What do we want students to learn?**

### Instructional Strategies

**How will we deliver the curriculum?**

### Resources

**What materials/resources will we need to ensure mastery?**

### Assessment

**How will we know if students learn?**

### Unit: CRAFT 1 unit 6 Workplace Readiness & Construction trades project management, 3 wks, 45 hrs

<table>
<thead>
<tr>
<th>CE 1</th>
<th>Applied academic skills</th>
<th>CE 2 Career planning</th>
<th>CE 3 Developing and presenting info</th>
<th>CES 7 Teamwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIV.2</td>
<td>CES 6 TLW read, understand, and articulate methods of managing a project.</td>
<td>CE1.2.1 Write, speak, use images, graphs to understand and discover complex ideas.</td>
<td>TLW read, understand, articulate and document (using IAPIE or fishbone chart) project mgmt. cause and effect of on the job changes</td>
<td>MIV.2 TLW read, study, discuss and demonstrate knowledge and understanding of powers, roots, and estimating</td>
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<td>CE1.3.8 Evaluate own and others effectiveness in group discussions, formal presentations (workplace behaviors).be clear, with relationships,arguments etc.</td>
<td>TLW understand the importance and safety considerations re: working in a team and answering to authority figures or Boss</td>
<td>TLW research and explore resume and career building sites</td>
<td>CE1.3.6Use speaking, writing, visual presentations to appeal to audiences of different social, economic, cultural backgrounds, inc. definitions, explanations</td>
</tr>
</tbody>
</table>

- Lecture, reading, discussion
- Documentation using charts and problem solving templates
- Online research
- Speakers/mentors
- Daily journal/log
  - [www.careerkids.com/1152x864/resume.html](http://www.careerkids.com/1152x864/resume.html)
  - [www.careervoyages.gov](http://www.careervoyages.gov)
  - [www.careerinfonet.org](http://www.careerinfonet.org)
  - [www.learning4liferesources.com](http://www.learning4liferesources.com)
  - [www.careertrain.com](http://www.careertrain.com)
  - [www.naceweb.org](http://www.naceweb.org)
  - [www.about.com](http://www.about.com)
  - [www.careerlab.com](http://www.careerlab.com)
  - [www.quintcareers.com](http://www.quintcareers.com)
  - [www.mapping-your-future.org](http://www.mapping-your-future.org)
  - [www.michworks.org](http://www.michworks.org)
  - [www.career.fsu.edu/portfolio](http://www.career.fsu.edu/portfolio)

- Managing the Construction Project, T. Trauner, 1993 U.S.
- Practical Problems in Mathematics for Carpenters, Huth, 1985, U.S.
- Computer

- Managing the Construction Project, ch. 3 & 6
- Practical Problems in Mathematics for Carpenters, Ch.6 & 7 inc. all activities
- Tools for Success pgs. 17-29 inc. all activities
- Team presentation and handouts re: website info and usages
- Resume drafts
- Portfolio development
- Daily journal/log
etc. of career info sites who best to utilize a site.
- TLW work in a team to research and prepare a synopsis of career site information and resources. Inc. audience served, positive and negative aspects of the site.
- CE1.1.2 Know and use prewriting skills to generate, focus, organize ideas
- TLW prepare draft resume
<table>
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**Unit: CRAFT II unit 2 The Construction Industry, Safety Real World Applications 3wks, 45 hrs**

**CES 1** Applied basic skills  
**CES 3** Career planning  
**CES 5** Personal management  
**CES 7** Teamwork  
**CE1,2,4**  
**TCH 3,6**  
**WKRFI 5**  
**WKT 5**  
**MI 1,2**  
**MII 1,2,3**  
**MIII 1,2,3**

- TLW understand, articulate, and model responsible safety behaviors  
- CE1.1.3 Select and use appropriate language for the audience and context of the text, speech, visual representation.  
- TLW research, recognize, understand, and communicate with proper safety and onsite construction terms. Using all of safety knowledge to create a worksite safety poster or brochure to promote safety.  
- CES TLW understand and complete the appropriate onsite documentation for safety reports  
- CE2.3.3 Critically read and interpret instructions for a variety of tasks ie: completing forms, assignments, applications  
- CE4.2.2 Understand the implications and potential consequences of language use ie: sexist, racist, etc.  
- TLW understand and articulate the laws concerning alcohol, drug, abuse, sexual harassment, in class and on worksite  
- MI.1.2 TLW read and

- [www.osha.com](http://www.osha.com)  
- [www.crafttraining.com](http://www.crafttraining.com)  
- Guided and independent practice  
- Lecture Q & A, discussion  
- Daily journal/log and peer reviews (for clarity of journal messages and directions)  
- Speakers/mentors  
- Portfolio development  
- Teamwork and presentations of class material  
- Hands on and visual learning through demonstrations and practice of lifting objects  
- Technology usage

- Core Curriculum Trainee Guide, 2000, National Center for Construction Education and Research, Prentiss Hall, New Jersey  
- [Applied Construction Math](http://appliedconstructionmath.com), National Center for Construction Education and research, 2006, Prentiss Hall, NJ  

- Core Curriculum Trainee Guide, 2000, NCCER, pg. 1-59 (inc. review questions)  
- Presentations on fire prevention with poster designs for display and potentially marketing  
- OJT for safe procedures of lifting heavy objects  
- Mathematics for Carpentry and Construction, ch. 2 pg. 13-47 (inc. review questions)  
- Coaching and Teaching rubric (CRAFT II pg 15)  
- Student self assessment (CRAFT II pg 14)  
- Daily journal/log  
- Portfolio development
<table>
<thead>
<tr>
<th>Understand monetary mathematical calculations in real world worksite conditions</th>
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<tr>
<td>TLW describe and design posters to clarify five fire prevention and fire fighting techniques</td>
</tr>
<tr>
<td>CES 5TLW model safe procedures for lifting heavy objects</td>
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<td>MII.1TLW understand fractions re: construction, use ruler, solve problems involving, measuring</td>
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**Semester Break**
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**Unit: CRAFT II unit 5, Planning and Blueprints and Power Tools 3wks, 45 hrs.**

- **CES 1 Applied basic skills**
  - CES 3 Developing and presenting info
  - CES 7 Teamwork
  - CES 9 Understanding systems

- **CE 1,3 MI.1.2 MIIII.1.2.3 SIV.3.3 TCH 1,2,3 WKRFI5, WKAM 5, WKAT**
  - CE3.4.1 Use methods of close and contextualized reading and viewing to examine, interpret, evaluate print, visual works, i.e. blueprints
  - TLW understand and articulate the history and purpose of blueprints
  - CE2.1.3 Determine the meaning of unfamiliar words, specialized vocabulary, technical meanings thru use of appropriate resource material.
  - TLW recognize and identify blueprint terms, symbols, and components
  - MI.1.2 TLW recognize and locate key objects on blueprints
  - TLW recognize different classifications of drawings and their relationship to individual trades professionals
  - CE1.1.4 Compose drafts that convey an impression, opinion, explore topic tell story or serve another purpose
  - TLW demonstrate blueprint understanding by drawing a basic schematic to scale of a room
  - TLW demonstrate knowledge of building dimensions, symbols and components of prints thru build up of mock room
  - CE1.3.7 Participate collaboratively and productively in groups, work

- **Lecture, discussion, Q & A**
- **Guided and independent practice**
- **Field trips and construction lab work**
- **Read texts and complete exercises**
- **Daily journal**
- **Portfolio development**
- **Speakers/mentors**
- **Technology usage** (research known bldgs. blueprints and architectural drawings)
- **Hands on mock up of room to scale showing appropriate symbols**

- **Core Curriculum Trainee Guide, National Center for Construction Education and Research NCCER, 2000, Prentiss Hall, NJ**
- **Applied Construction Math, National Center for Construction Education and Research, NCCER, 2006, Prentiss Hall, NJ**
- **Professional speakers**
- **Any and all related contractor materials**

- **Core Curriculum Trainee Guide, NCCER, ch 5 pg 5.1-5.44**
- **Complete all exercises and ch. Review**
- **Pass terminology of power tools NCCER quiz**
- **Applied Construction Math, NCCER Ch 12, 14, inc. review questions**
- **Team presentations of schematics**
- **(mock build up of schematic drawing to represent a room to dimensions, showing electric, plumbing symbols etc.)**
- **Student self assessment (CRAFT att.14)**
- **Teaching and coaching rubric (CRAFT att.15)**
- **Portfolio development**
- **Daily journal/log**
teams, fulfill roles, pose questions, build on ideas solve problems.

- TLW understand and model teamwork and leadership skills
- MII.1 TLW understand and utilize mathematical measurement formulas in building room to scale
### Unit: CRAFT II unit 6, Building Foundations, Masonry 3wks, 45 hrs.

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Instructional Strategies</th>
<th>Resources</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
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<td><strong>How will we deliver the curriculum?</strong></td>
<td><strong>What materials/resources will we need to ensure mastery?</strong></td>
<td><strong>How will we know if students learn?</strong></td>
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</table>

**Unit Components:**
- CES 1 Applied basic skills
- CES 3 Developing and presenting info
- CES 4 Problem solving
- CES 6 Organizational skills
- CES 7 Teamwork

**Course Materials:**
- CE 1 MI1.2 MI1.2.3 MI1.2.3 SIIV.2.1 TCH 3,6 WKAM5, WKTS5, WKL5
- Lecture, discussion, Q & A
- Hands on training and performance
- Professional speakers/mentors
- Field trips
- Guided and independent practice

**Learning Outcomes:**
- MI.1.2 TLW understand and distinguish between the two types of structures sub, super
- SIIV.2.1 TLW understand and articulate the need for and components of foundation structures
- MII.2 TLW demonstrate hands on knowledge of foundation building and masonry projects
- MII.1.3 TLW know and apply mathematical calculations to foundation building problems
- CE1.3.1 Compose a written, spoken, analysis, research report or work-related text for purposes of informing, creating and persuading to sell a foundation job (BID)
- CE1.1.8 Proofread for spelling, layout, font presentation of (BID) for public audience
- TLW know understand, and design a foundation building project bid (using a fishbone template) components manpower, time, money, materials

**Instructional Strategies:**
- Introduction to Masonry, National Center for Construction Education and research, NCCER, Prentiss Hall, NJ
- Mathematics for Carpentry and Constructions Trades, 2nd ed. A. Webster, K. Judy, 2002, Prentiss Hall, NJ
- Michigan Construction Math Curriculum, Masonry sec. 2, pg 1-16
- Applied Construction Math, ch 5 pg 5.1-5.25 (inc. all exercises and hands on work) Fishbone template (CRAFT I att back of bklt.)

**Assessment:**
- Introduction to Masonry, NCCER, ch tbd
- Mathematics for Carpentry and Construction Trades, ch 13 pg 219-225
- Michigan Construction Math Curriculum, Masonry sec. 2, pg 1-16
- Applied Construction Math, ch 5 pg 5.1-5.25

**Daily journal/log**
- Portfolio development, peer review/edit
### Integration Teacher

#### Curriculum

- **What do we want students to learn?**
- **How will we deliver the curriculum?**
- **What materials/resources will we need to ensure mastery?**
- **How will we know if students learn?**

### Instructional Strategies

- **3rd Quarterly focused instructional strategies, processes, skill development, or content expectations**

### Resources

- **Unit: CRAFT II unit 3, 4 (addendum) Plumbing and Pipefitting, Hand Tools 3wks, 45 hrs.**

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<tr>
<th>Notes</th>
<th>CES 4 Problem solving CES 7 Teamwork CES 9 Understanding systems</th>
</tr>
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<tr>
<td>CE 2.1</td>
<td>MI.1.2 MI.2.3 MI.1.2 MI.1.3 MI.2.3 WKT5 TCH 1.2 SSII.2</td>
</tr>
</tbody>
</table>

- **SSI2 ELA.L.1 TLW 02101-05 Introduction to the Plumbing Profession (5 Hours)**
  - Introduces trainees to the many career options available in today’s plumbing profession. Provides a history of plumbing and also discusses the current technology, industries, and associations that make up the modern plumbing profession. Also reviews human relations and safety skills.
  - CE1.1.3 Select and use language that is appropriate, technical for the purpose, audience and context, (PLUMBING terms) is know the technical terms to compose bids and convey meanings in workplace
  - TLW read, research, understand, and demonstrate usage of plumbing terms, and related work processes
  - MI.1.1 TLW read, research, understand, and demonstrate usage of plumbing terms, and related work processes
  - MI.1.2 TLW understand and follow plumbing procedures involving hands on pipefitting exercises
  - MI.1.3 TLW read, discuss, and understand mathematical connections involving
plumbing and pipefitting.

- CE1.1.4 Compose drafts that convey impression, express opinion, or serve another purpose (Explain in writing the plumbing steps needed in replacing a faucet and the tools necessary for completion of the job)
- TLW articulate a real world understanding of plumbing procedures and mathematical and scientific applications for on the job success
- TLW recognize, name, and use basic hand tools
- CE2.3.1 Read, listen to diverse texts for multiple purposes such as learning complex procedures, making workplace decisions, pursuing in depth studies
- TLW articulate and demonstrate the safe use and care of hand tools, Prepare a chart with visuals, proper names and uses for plumbing tools and materials to be used in CTE classrooms.
- TLW recognize and connect the proper hand tool for a specific job

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### Curriculum

**What do we want students to learn?**

4th Quarter focused instructional strategies, processes, skill development, or content expectations

#### Unit: CRAFT II unit 8, 9 Electricity, Basic Rigging

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<th>CES 3</th>
<th>CES 6</th>
<th>CES 7</th>
<th>CES 9</th>
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<td>Applied basic skills</td>
<td>Developing and presenting info</td>
<td>Problem solving</td>
<td>Teamwork</td>
<td>Understanding systems</td>
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<tr>
<td>MI.1.TLW understand and model safe working procedures re: lifting and electrical (pounds vs. eq. etc).</td>
<td>CE2.3.3 Critically read and interpret instructions for a variety of tasks and safety procedures</td>
<td>TLW read, understand, and interpret OSHA guidelines concerning electrical systems</td>
<td>SIIVPMO.4TLW recognize and identify electrical hazards</td>
<td>CE2.3.5 Engage in self assessment as a reader, listener, viewer, while monitoring comprehension and using various strategies to overcome difficulties in understanding and conveying meaning ie: safety manuals, electrical codes and mandated precautions</td>
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### Instructional Strategies

**How will we deliver the curriculum?**

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<th>Field trips</th>
<th>Speakers/mentors</th>
<th>Portfolio development</th>
<th>Daily journal/log</th>
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**How will we know if students learn?**

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K. Rypkema Fall 2009
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<td>• Institute hand signals for safety on the job</td>
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<td>Integration Teacher</td>
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**Unit: CRAFT II unit 8, 9, Wood Framing, Carpentry plumbing, electrical, masonry (review), Capstone project 3wks, 45 hrs.**

- **CES 2 Career planning**
  - CES 3 Developing and presenting info
  - CE S5 Personal management
  - CE S6 Organizational skills
  - CE S10 Using employability skills

- **CE1,4 TCH 3**
  - VPAAA (Visual Perf. Arts)
  - CI.3,4
  - PII.2,4
  - RIII.1,4

- **Post test**
- **Lecture, discussion, Q & A**
- **Guided practice and independent work**
- **Teamwork**
- **Student led conferences**
- **Mock employment interviews**
- **Portfolio presentations**
- **Hands on construction project completion**
- **All texts**

- **Post test (back of CRAFT bkl.)**
- **Portfolio completion**
  - inc. mission, resume, cover letter, behavioral exercise, case studies, terminology quizzes, teamwork exercises, final exit project visuals ie: posters, charts, IAPIE prob solve templates, letters of reference, transcripts, pics of hands on project)
  - Daily journal/log
  - Documentation of course website research (for future reference)
  - Student led parent conference
  - Employment interview and portfolio presentation
<table>
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<tr>
<th>CE1.3.6 Use speaking, writing, visual representations, charts etc. to appeal and explain to audiences of different social, economic, educated, and cultural backgrounds.</th>
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<td>TLW demonstrate an understanding of system thinking through use of charts and documents (journals) that establish the workflow on a project</td>
</tr>
<tr>
<td>CE1.3.8 Evaluate own and others effectiveness in group discussions and presentations, check for accuracy, relevance, clarity and delivery, peer reviews of portfolios</td>
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<tr>
<td>TLW understand the importance of self directed learning as evidenced by student learning self assessment in portfolio</td>
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END OF SCHOOL YEAR