Advanced Cabinetmaking – Wood B65b
COURSE SYLLABUS

TERM:  

CRN:  

COURSE TITLE: Advanced Cabinetmaking: Wood B65a/Wood 65b

PREREQUISITE: Intermediate Cabinetmaking: Wood B5 or evaluation by Professor of student’s cabinetmaking skills.


START DATE:  

LECTURE/LAB:  

LOCATION: IT 2  

INSTRUCTOR: Professor Steve J. Hageman, M.A.

OFFICE HOURS: Rm. IT 7C  

EMAIL: shageman@bakersfieldcollege.edu
WEBSITE: www2.bakersfieldcollege.edu/shageman/  

FINAL:  

SPECIAL MATERIALS FEES: Listed in catalogue as part of course registration; may be other fees for individual projects.

Introduction:

(3 units) Not Transferrable – Associate Degree Only.
Hours – 36/Lecture – 72; Reading level 5 or 6.

A one-semester course. This course has been designed as a machine woodworking course emphasizing designs including modular as well as European cabinet construction, new materials and processes to include CNC Router technology utilized in conjunction with cabinetmaking software. Advanced bidding techniques and cabinet layout are also discussed. This course has been designed to accommodate a variety of interests. The student who is seeking knowledge to enter the industrial/technical arena will gain appropriate insights and knowledge through participation in this course. The student who is seeking the vocational features in an effort to enter industry will also find that this course will meet his/her needs. Lastly, the student who attends this course primarily for avocational reasons will too gain the desired information to satisfy their interests. This course will seek to have students integrate a multitude of academic areas through its lectures, demonstrations and instructor-selected project.
CLASS CONTENT: In this class, each student will design and construct one or more woodworking projects of their own choosing which reflects their accumulated experience gained from previous woodworking experiences and/or course work taken here at Bakersfield College. Student selected projects should be chosen with the intent of furthering their respective knowledge in the area of advanced cabinetmaking and woodworking. Developing skills in the safe use of woodworking machines and tools is a very important part of this class. In order for the student to maximize their success in this course s/he will need to be proactive in the research, design and planning of their selected project/s. This course will also incorporate the research, planning, design, construction and installation of cabinetmaking projects which will include all students in the class. The Professor will also include a variety of “student exercises” that will be required of all students designed to help further the student’s knowledge of advanced cabinetmaking/woodworking principles and concepts.

Requirements:

- Personal safety glasses; to be worn by the student at all times while in the lab.
- Three ring binder, paper and pencil for personal notes, journal, thumb-drive, etc. will be required for each student every day.
- Non-slip work mat.
- Thumb Drive for CNC Router and EnRoute4 Pro Cabinet designs.
- Tape measure required for every student and a lab coat/apron is suggested.
- Completion of Woodworking Technology Student Safety Portfolio with all required signatures.
- Completion of all required “student exercises” and projects initiated by the Professor.
- Other materials deemed necessary by the instructor for your success.
- “Positive Attitude” which is receptive to new learning/team concept.
- It is the student’s responsibility to make copies of the “Master” Weekly Journal provided by the Instructor and to submit your Weekly Journal each week in that format. NO OTHER format will be accepted.
- Course Portfolio with integrated digital pictures.

Attendance:
Consider this class your job. Employment mandates that employees be at work on time each and every day. This class is no different. If you miss a class for any reason, it is your personal responsibility to obtain any notes, handouts, assignments and/or informational items, which were covered. Your personal success is closely correlated to your active participation; therefore, a good attendance record will be beneficial to everyone.

Important Dates:

<table>
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<tr>
<th>Date</th>
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<tr>
<td>January 19, 2010</td>
<td>Instruction Begins.</td>
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<td>January 29, 2010</td>
<td>Last Day for Refunds.</td>
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<td>February 12, 2010</td>
<td>Lincoln’s Birthday Holiday.</td>
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<td>February 15, 2010</td>
<td>Washington’s Birthday Holiday.</td>
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<td>May 29 – April 2, 2010</td>
<td>Spring Break.</td>
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<td>April 5, 2010</td>
<td>File for Graduation – Last Day.</td>
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<td>May 10-14, 2010</td>
<td>Final Examinations.</td>
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<td>May 14, 2010</td>
<td>End of fall semester and Commencement</td>
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Student Evaluation Standards:
Grades will be based on the areas of assessment listed below, and will be based on a percentage of the total points possible. The following are general grade standards for this course:

90 – 100% = A  
80 – 89% = B  
65 – 79% = C  
55 – 64% = D

- 40% Written Assignments/Exercises to include Course Portfolio with semester photographs of work progression and Weekly Journals.
- 60% Instructor's overall evaluation of the student vis-à-vis, Daily Work Performance Evaluation to include, but not necessarily limited to the following:
  - Attendance
  - Punctuality
  - Work ethic and attitude
  - Level of preparedness
  - Safety awareness and practice
  - Classroom involvement and interaction with classmates
  - Quality of craftsmanship
  - Project/Exercise assembly, detail and level of completion
  - Bill of Materials
  - Extent of project completeness relative to Evaluation Rubric

NOTE: This class will be both lecture and laboratory in nature. All class-related manipulative work MUST be done during the laboratory portion of the class.

Course Drops:
The college policy allows an instructor to drop a student after that student has missed an equivalent of two weeks of school. You won’t necessarily be dropped, but the instructor has the option. It is always the responsibility of the student to insure a drop has been initiated.

Parking:
Be aware of student and staff parking areas. Campus Security patrols the campus and will cite cars without proper parking permits and those parking in unauthorized areas. Any tickets come from the city of Bakersfield and are expensive. Mr. Hageman has no pull with these folks and cannot “fix” tickets.

Phone Numbers:
Campus Security ......................................................... 395-4554
(Emergency) ............................................................. 395-4555
Mr. Hageman’s Office ............................................... 395-4759
Nurse’s Office ............................................................ 395-4336
Students With Disabilities:

Bakersfield College will make reasonable accommodations and/or academic adjustments to ensure that students with disabilities have an equal opportunity to participate in the college’s courses, programs and activities, including extracurricular activities. Students with disabilities who are requesting academic accommodations or auxiliary aids should contact Supportive Services at (661) 395-4334, FACE 16, as soon as possible to better ensure such accommodations are implemented in a timely fashion. Participation by students with disabilities in Supportive Services is voluntary. Any student choosing not to participate in the program may elect an alternate path for support services through the office of the Dean of Learning Support Services.

Alternate media for students with disabilities and who have been authorized alternate media (Braille, electronic text, etc.) is available and can be accessed by forwarding class syllabus, handouts, etc. to altmedia@bakersfielcollege.edu.

Estudiantes Incapacitados:

Bakersfield College proveera servicio y/o arreglos academicos para asegurar que estudiantes incapacitados tengan oportunidades iguales para participar en las clases de esta escuela, incluyendo actividades extraescolares. Tales estudiantes que piden arreglos o aparatos auxiliares deben llamar a Supportive Services a 661-395-44334. Participacion es voluntaria. Estudiantes que no desean participar en este programa pueden ponerse en contacto con la oficina del Decano de Aprendizaje/Servicios Auxiliares.

Cell Phone Policy:

All cell phones and pages must be turned off during the class period. Please make sure that the device is either completely off or set to client. Vibrating phones can be just as disruptive as ringing, and can cause safety issues. Repeat offenders participation grade will be affected.

Drug and Alcohol Policy:

Bakersfield College has a strong snit-drug and alcohol policy. If you arrive to class inebriated, you will be escorted off campus by campus security.

No Food or Drink Allowed Into Woodworking Lab

“… there is some of the same fitness in a man’s building his own house that there is in a bird’s building its own nest.”

Henry David Thoreau
Waterfront Cabin Builder
Industrial Technology: Student Learning Outcomes (SLO); Wood B65ab Advanced Cabinetmaking

1. **SLO1: Measurement/Math Applications**
   Students will have opportunities to demonstrate and apply measurement systems in the planning and layout processes used in the woodworking industry vis-à-vis skills based exercises which culminate in activities/exercises provided by the Professor as well as original designs provided by the student. They will demonstrate content proficiency by: consistently and reliably being able to utilize various precision measuring instruments to measure to the nearest 1/64-inch by rule and finer by utilizing vernier calipers as well as by completing the required project with a grade of ‘C’ or better as evaluated by the Project Rubric provided by the Professor.

2. **SLO2: Hand Tools**
   Students will have opportunities to extend their knowledge of as well as demonstrate safe and appropriate use of hand tools common to the woodworking industry with specific emphasis and focus on those hand tools relevant to their required skills activities/exercises provided by the Professor as well as original designs provided by the student. They will demonstrate content proficiency by: completing the required “projects” with a grade of ‘C’ or better as evaluated by the Project Rubric provided by the Professor.

3. **SLO3: Portable Power Tools**
   Students will have opportunities to extend their knowledge of as well as demonstrate the safe and appropriate use of portable electric power tools common to the woodworking industry with specific emphasis and focus on those portable electric power tools relevant to their required skills based activities/exercises provided by the Professor as well as original designs provided by the student. They will demonstrate content proficiency by: completing the required “projects” with a grade of ‘C’ or better as evaluated by the Rubric provided by the Professor.

4. **SLO4: Safety**
   Students will have opportunities to demonstrate the value and necessity of practicing occupational safety in the woodworking industry as well as safety becoming a lifestyle choice. They will demonstrate content proficiency by: completing the required Student Safety Portfolio, actively participating in each and every “hands on” safety demonstration as provided by the Professor as well as consciously and actively practicing safe work habits at all times while in the Woodworking Laboratory. Students’ safety work habits will be evaluated daily by the Professor by utilizing the Daily Work Performance Evaluation instrument.

5. **SLO5: Career Preparation and Planning**
   Students will have opportunities to demonstrate career preparation and how it applies across all standards for students planning to successfully enter and advance in the woodworking industry. They will demonstrate content proficiency by: actively reading all related and relevant written materials provided by the Professor as well as actively demonstrating in the classroom and laboratory those behaviors and characteristics which are sought after by employers in Industry. Students will be evaluated in this area daily by the Professor by utilizing a Daily Work Performance Evaluation instrument.
6. **SLO6: Planning and Layout Processes**
Students will have opportunities to demonstrate the planning and layout processes used in woodworking technology vis-à-vis skills based exercises which culminate in a activities/exercises of the Instructor’s choosing as well individual/group projects of original design and with approval of the Professor. They will demonstrate content proficiency by: by completing the required “projects” with a grade of ‘C’ or better as evaluated by the Project Rubric provided by the Professor.

7. **SLO7: Materials Processing**
Students will have opportunities to expand their knowledge of as well as demonstrating the ways in which tools and machines are used to process wood and wood product materials vis-à-vis skills based activities/exercises which culminate in a project/s of the Instructor’s choosing as well as original design work. They will demonstrate content proficiency by: completing the required “projects” with a grade of ‘C’ or better as evaluated by the Project Rubric provided by the Professor.

8. **SLO8: Assembling Processes**
Students will have opportunities to expand their knowledge of as well as demonstrating the assembling processes vis-à-vis skills based activities/exercises which culminate in a projects of the Instructor’s choosing as well as original student work. They will select and safely use appropriate tools and materials by following standard assembly procedures. They will demonstrate content proficiency by: completing the required “projects” with a grade of ‘C’ or better as evaluated by the Project Rubric provided by the Professor.

9. **SLO9: Finishing Processes**
Students may have opportunities to demonstrate the finishing processes and related health and environmental issues vis-à-vis skills based exercises which culminate in a project of the Instructor’s choosing. They may have time to select and safely perform some or all of the finishing processes in an environmentally responsible manner as a part of their required project. They will demonstrate content proficiency by: observation and evaluation of the Professor.

**INSTRUCTOR NOTE:** The information contained within this course syllabus MAY be modified at the discretion of the Instructor. Changes will be conveyed to the student’s vis-à-vis the written weekly advanced organizer provided by the Instructor during class time. It remains the responsibility of each student to keep abreast of these changes and revise their existing course syllabus as needed and to make written note of any changes in their weekly journal.
Quality Work and Evaluation:

The evaluation of work involves making a judgment as to its level of quality. In order to help you to better understand the evaluation process and to know how to improve in your craft, you will receive feedback on your work that will address specific evaluation criteria. As your Professor, I will always be glad to communicate with you individually relative to your work, project and its evaluation in order to better clarify my observations and respond to any questions that might arise during the course of your work.

The evaluation of your work will reflect its relationship to the quality of work that is expected from beginning students in woodworking at the college level. As a learner, you are not in competition with your colleagues, but rather working as a community of learners to better acquire knowledge necessary to be successful in your craft. The object of this course is not to weed out students, but to provide fundamental concepts and skills that will encourage you to continue your quest further into the craft of woodworking. There is no limit to the number of “A’s”, “B’s”, etc. that can be earned by students in this course.

Project Quality:

The quality level of your response to the assigned projects will determine your basic grade for the semester. Project quality will be evaluated in terms of Participation, Completion, Craft and Design. The following guidelines will help to identify some of those items that are typically exhibited in quality work by dedicated craftsman.

- **Project Completion**: Project Completion recognizes that time is an important element in the design process and reflects the craftsman’s skill at managing it effectively in order to meet specific deadlines. High quality work is on time and completed as per specifications. Projects are due as specified in the course syllabus. Late projects are not an option for this course … plan accordingly.
• **Craft:** Craft evaluates both the skill and the understanding that is required in order to communicate ideas and is concerned with the level of quality of the visual communication in both its details and overall impression.

• **Craft Skill:** Quality craft meets presentation requirements plus constraints. Quality craft adds value to the presentation; it supports perceived quality.

• **Quality Wood Fabrication:** Chosen woodworking joints fit tightly with no unintended gapping. Joinery does not come apart or loosen when handled for its intended purpose/function. Surfaces are clean and thoroughly abraded. Surfaces are free of all unnatural machine and hand-tool markings. The construction shows no unintended dirt, glue and/or other unsightly blemishes. Overall construction exhibits no unintended ragged edges or rough surfaces and the product will not deform, discolor or come apart.

• **Design:** The demonstration of your understanding and creativity is a part of the evaluation of every problem. Design recognizes the effort required to generate and develop one’s ideas and is concerned with conceptual understanding and the generation of appropriate, inclusive, thoughtful, aesthetic and creative responses to the design concept. Design is concerned with both the overall ideas and their development and extension into the very details of the design concept/project.

• **Design Thoughtfulness and Creativity:**
  ✓ Quality design exhibits an understanding and employment of previously learned concepts.
  ✓ Quality design addresses all problem issues and requirements/restraints.
  ✓ Quality design addresses all problem goals.
  ✓ Quality design exhibits an understanding and synthesis of problematic issues, goals, facts and requirements.
  ✓ A creative synthesis is one that creates new and meaningful relationships between problem elements.
  ✓ Quality design creates clear and appropriate patterns, hierarchies and contrasts that support into intentions.
  ✓ Quality design exhibits a clear organizational concept that affects the relationships between and development of all elements.
  ✓ Quality design exhibits a strong expressive mood or feeling.

• **Evaluation Scale:** A letter grade will be assigned to each project base upon its quality. This grade will represent the judgment of the craftsman, a colleague and your Professor. The grade assigned will be indicative of the quality of your work as a craftsman in terms of both craft and design which for our purpose will share about equal importance. A grade will reflect both the elements of a solution and the solution as a whole. By this I mean, a grade is arrived at by both evaluating your response to individual requirements and issues and your specific solution as a whole. A design is both the sum of its parts and greater than the sum of its parts.
• **Grade Equivalency Scale:**
  ✓ Grade of “A”  10 Points  represents excellent quality.
  ✓ Grade of “A/B”  09 Points  represents emerging excellence.
  ✓ Grade of “B”  08 Points  represents Good overall quality.
  ✓ Grade of “B/C”  07 Points  represents developing quality.
  ✓ Grade of “C”  06 Points  represents low overall quality.
  ✓ Grade of “D”  05 Points  represents poor overall quality.
  ✓ Grade of “F”  04 Points  unacceptable/ incomplete quality.
  ✓ **NOTE:** evaluator may give 0.5 increments of a value [i.e. 9.5].

• **Instructional Objectives:**
  ✓ Consider constructing a prototype of your design solution if applicable in order to better develop and communicate a design solution.
  ✓ Make material and detailing decisions that support your design intention and construction processes.
  ✓ Make accurate drawings/sketches as a guide to the construction of your design solution.
  ✓ Operate a range of laboratory equipment employing appropriate safety procedures.
  ✓ Construct a design solution/product that exhibits a high level of craft.
  ✓ Develop a holistic [emphasizing the importance of the whole and the interdependence of its parts] approach to your design solution.

Keep in mind, everything that you do is a reflection of who you are as a craftsman. If you do not care, it will be evident in your final product evaluation by all parties concerned. Conversely, if you take the time to work with due diligence, care and attention to quality, you will be successful. It is not only the destination that matters, but the journey.

Some of the concepts contained within this rubric were borrowed from El Corral Publication 128-02 Department of Architecture; California Polytechnic State University, San Luis Obispo.
Woodworking B65ab
Advanced Cabinetmaking
Evaluation Rubric

Student Score: _______
Observations/Comments:

PROJECT COMPLETION:

A  B  C  D  F

_____ Project completed on time.

Comments:

CRAFT: [35%]

A  B  C  D  F

_____ Joints fit tightly with no untended gapping.

_____ Joinery is secure and will not loosen under its intended function.

_____ Type of joinery utilized reflects a high degree of quality for the functionality of the product.

_____ Type of hardware and fasteners displays a high level of quality craftsmanship.

_____ Installation of hardware and fasteners demonstrates a high level of craftsmanship.

_____ Surfaces are clean and thoroughly abraded to a level indicative of the products functionality.

_____ Surfaces are free of all unnatural/manmade blemishes.

_____ Project finish applied as per specs and abraded smoothly without visible flaws relative to its functionality.

Comments:
### DESIGN:  [35%]

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<td>Exhibit an understanding/employment of learned design concepts.</td>
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<td>Addresses all problem issues, requirements and constraints indicative of the design solution.</td>
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<td>Surfaces are clean and thoroughly abraded relative to its end use.</td>
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<td>Exhibits a strong visual expressive mood and/or feeling.</td>
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<td>The end product exhibits functionality as per the original specifications and its end use.</td>
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<td>Exhibits a clear organizational concept that affects the relationship between and development of all elements.</td>
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<td>Creates clear and appropriate patterns, hierarchies and contrasts that support the intentions of the craftsman.</td>
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<td>A creative synthesis that creates a new and meaningful relationship between problematic elements.</td>
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<td>Exhibits an understanding and synthesis of problem issues, goals, facts and project specifications.</td>
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<td>Design addresses and reflects all of the project design specifications.</td>
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Comments:

### Materiality:  [20%]

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<td>Material selections and application supports the design intentions of the craftsman.</td>
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<td>Materials are joined cleanly and consistent with material properties.</td>
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Comments:
Bill of Materials: [10%]

To what level of detail has the Project Bill of Materials been completed and figures calculated. All solid lumber, masonite, hardware, adhesives, abrasive paper, biscuits, dowels, splines, finishes, etc. must be listed and accounted for in order to have a COMPLETE Bill of Materials. A total cost MUST be arrived at based on all data and listed on your Bill of Materials.

Additional Comments:

Some of the concepts contained within this rubric were borrowed from El Corral Publication 128-02 Department of Architecture; California Polytechnic State University, San Luis Obispo.