

2008 PROGRAM OUTCOMES ASSESSMENT SUMMARY REPORT

PROGRAM: MARINE CARPENTRY - CERTIFICATE AND AAS-T

DATE: 16 JANUARY 2008

DEMONSTRATION OF LEARNING: *What assignments or projects demonstrate student learning outcomes are achieved?*

[Note: evidence of learning contained in Assessment methods and Findings sections.]

First quarter students learn and are tested on basic skills and competencies in the core course and in first aid.

Each succeeding quarter includes individual or group projects and student competencies are assessed individually based on skill sets assigned to each quarter. Instructors get to know students very well and learn their strengths and weaknesses. Students have weekly evaluations from the second to the eighth quarters through progress reports and safety meetings.

Sixth quarter projects are developed individually to improve weakest skills. Those students who successfully master the skill sets may graduate after the sixth quarter. Those who are not ready for employment are advised to take the optional seventh and eighth quarters to improve skills and confidence.

Portfolio and Internship projects are optional at this time. Recently a student was hired on the strength of their portfolio which had been posted on the Student Leadership website.

Twice quarterly all students in program visit boat shops and observe real world application of what they are learning. Following these visits, students and faculty debrief on the experience and discuss relationship of the program curriculum to their experience in the field.

EXTERNAL EVIDENCE? *Alumni, employer, Curriculum Review, Technical Advisory Committee feedback?*

The program relies on feedback from students' quarterly course evaluations, program graduates, employers of interns and graduates, the Technical Advisory Committee and King & Snohomish County Master Builders, and the Association of General Contractors. The feedback from these sources informs program changes. Examples of feedback described under "findings" and "actions taken."

The TAC is a particularly powerful force in gathering resources to improve facilities and curriculum. This body includes both union and management constituencies in industry. The feedback from this body is critical to keeping program aligned with changes in industry.

Seattle Central Community College Curriculum Review reports are prepared and reviewed on a three year cycle.

State Board of Community and Technical Colleges require faculty to have a five-year professional development plan. These plans enable faculty to catch up with changes in industry and improve their own skills and knowledge.

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FINDINGS: *What have you learned from your outcomes assessment activities?*

Many graduates of the program are major players in Washington State industry. Four members of the current TAC are highly successful industry leaders. This body finds that the program is handicapped by operating in substandard facilities, limiting the program curriculum. The limitations include adequate workspace (insufficient space in WWII era portables), outdated equipment, and an infrastructure that does not support IT requirements. These deficits make it hard for the program to adapt to changes in industry.

The size of the facility and the number of faculty also limit the size of the program. Boat Building has a 1.5 year wait list for entering the program. On the one hand, those who manage to stay on the list are determined and may be better qualified. The faculty are concerned, however, that they are losing other strong candidates who are dropping off the list and going directly into industry and training on the job. Members of the TAC and other industry representatives report that the skill level of people in shops is going down. The employers are forced to hire people off the street and provide on the job training because the demand for skilled workers is far greater than the supply. However, employers benefit when they can employ program graduates who enter the workforce with basic safety and technical skills training.

Direct input from employers comes in the form of requests for student employment. The employers are questioned about former students and their preparation for the job. The feedback is largely anecdotal but it frequently includes concrete suggestions that lead to adjustment to the curriculum. The same opportunity arises when former students return to visit and they tell faculty about their experience on the job and how well they were prepared or what they wish they had learned in the program.

Only a small number of students elect the internship option but it is a valuable experience because those who do take advantage of it return to the program with a real understanding of how important the program skill sets are in preparing them for the job. This experience is not meant as a bridge to employment but as a skill building experience. Unfortunately, a number of students are employed directly from the internship without completing the program and many other students drop out of the program before completing the certificate because of industry demand.

Industry representatives have encouraged the program to continue to teach lofting. While this is now done with software in industry, the students who learn traditional lofting processes have a better understanding of the three dimensional aspects of boat design.

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ACTIONS TAKEN: *What program changes have you made in the last three years? -- WHAT WAS THE IMPETUS FOR CHANGE?*

The TAC helped build an argument for a new facility and successfully lobbied the college to finance a master plan for the program. The proposal for a new facility was successful and the staff are now engaged in the design phase for a new campus with updated equipment and teaching and learning spaces. The building phase is expected to begin in Fall 2009.

Feedback from industry has also lead to curriculum changes. Recent changes include:

1. Introducing a spar project in the second quarter. The Spar project was added to assure all students meet the learning outcomes of producing a tapered round spar from square stock. It was brought to our attention by alumni that they had not learned the outcomes necessary to perform this task on the job. Resin infusion has been introduced into the third and fourth quarters. Hand laid fiber glass was introduced in the 1970's to meet industry demand and resin infusion is being introduced now to meet changes in the industry for fiberglass construction.
2. Infusion is an evolutionary process to move away from open molding to meet environmental and worker safety concerns. The program wants to expand the resin infusion projects to full sized projects. In the past the program was entirely focused on wooden boats but introduced fiberglass construction and repair to meet industry demand.

Instructors introduce new projects whenever specific skill building needs are identified. Recently, wooden oar and deck projects have been introduced to develop skills with curves, compound bevels and steam bent wood. Another recent addition is a project to develop estimating skills for both time and materials. These changes do not take the form of new courses; rather they are introduced into the skill sets for the appropriate quarter.

ACTIONS PLANNED: *What program changes or new assessment activities are you planning for next year?*

The program is working with the TAC and King & Snohomish County Master Builders to develop stronger internship program. One factor under consideration is to require that employers not hire interns until they have completed the program.

The TAC wants to add evening classes so that people working in the field can upgrade their skills for advancement. They see an increasing demand for skilled workers and believe a credit bearing evening program would help satisfy demand for more qualified workers.

Faculty plan to establish a mechanism to record input from employers and program graduates. The first step will be to document feedback from these sources. They would also like to see more systematic contact with graduates through a college sponsored alumni association.

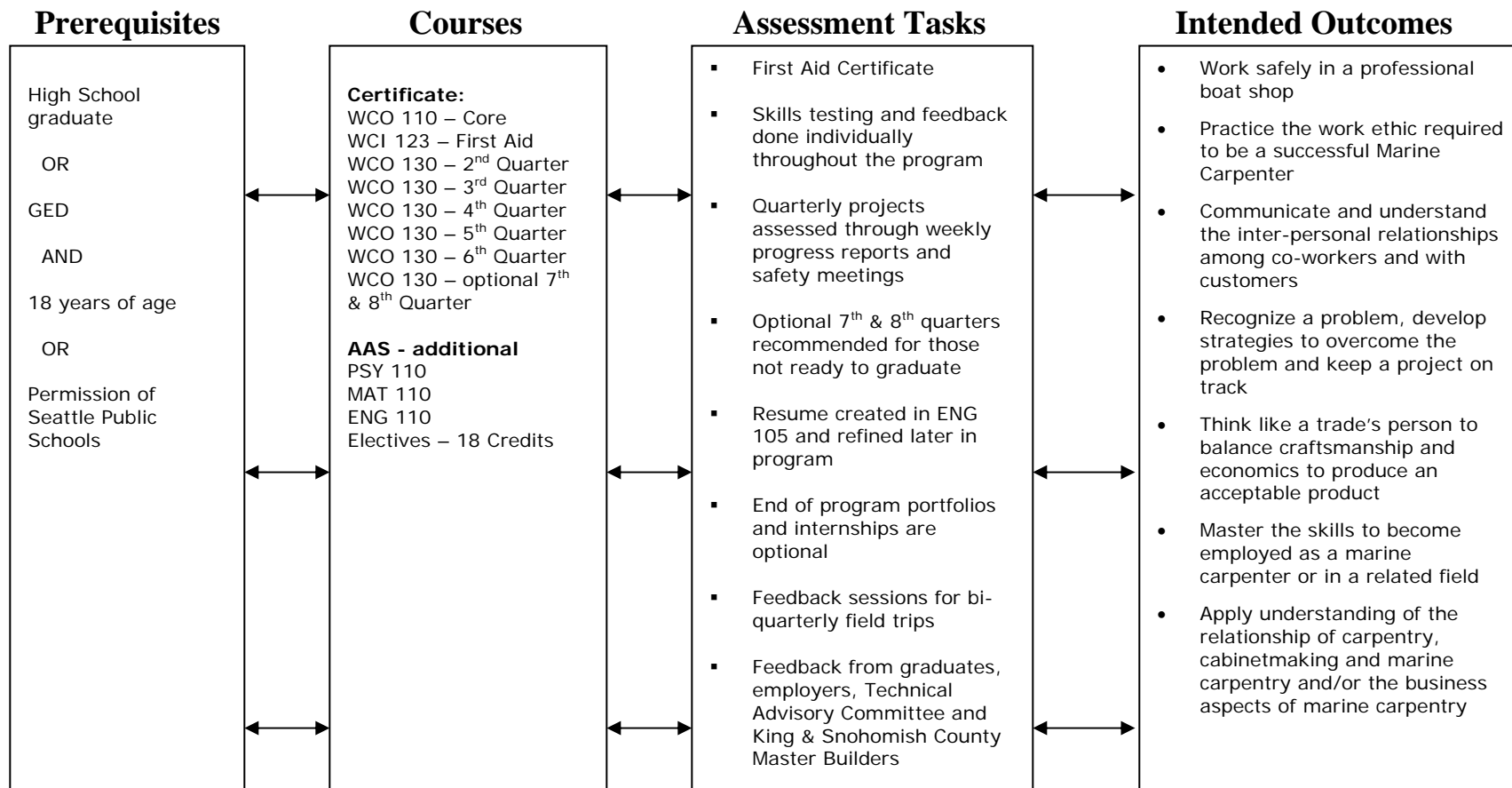
Program Name:

WCP Marine Carpentry - AAS & Certificate

Revised 4 December 2007

Theme(s): Safety, problem solving, fiscal responsibility, technical skills, confidence building, work ethic

Program Role: Prepares students to obtain positions in boat repair, boat building, cabinet making, finish carpentry and related trades.



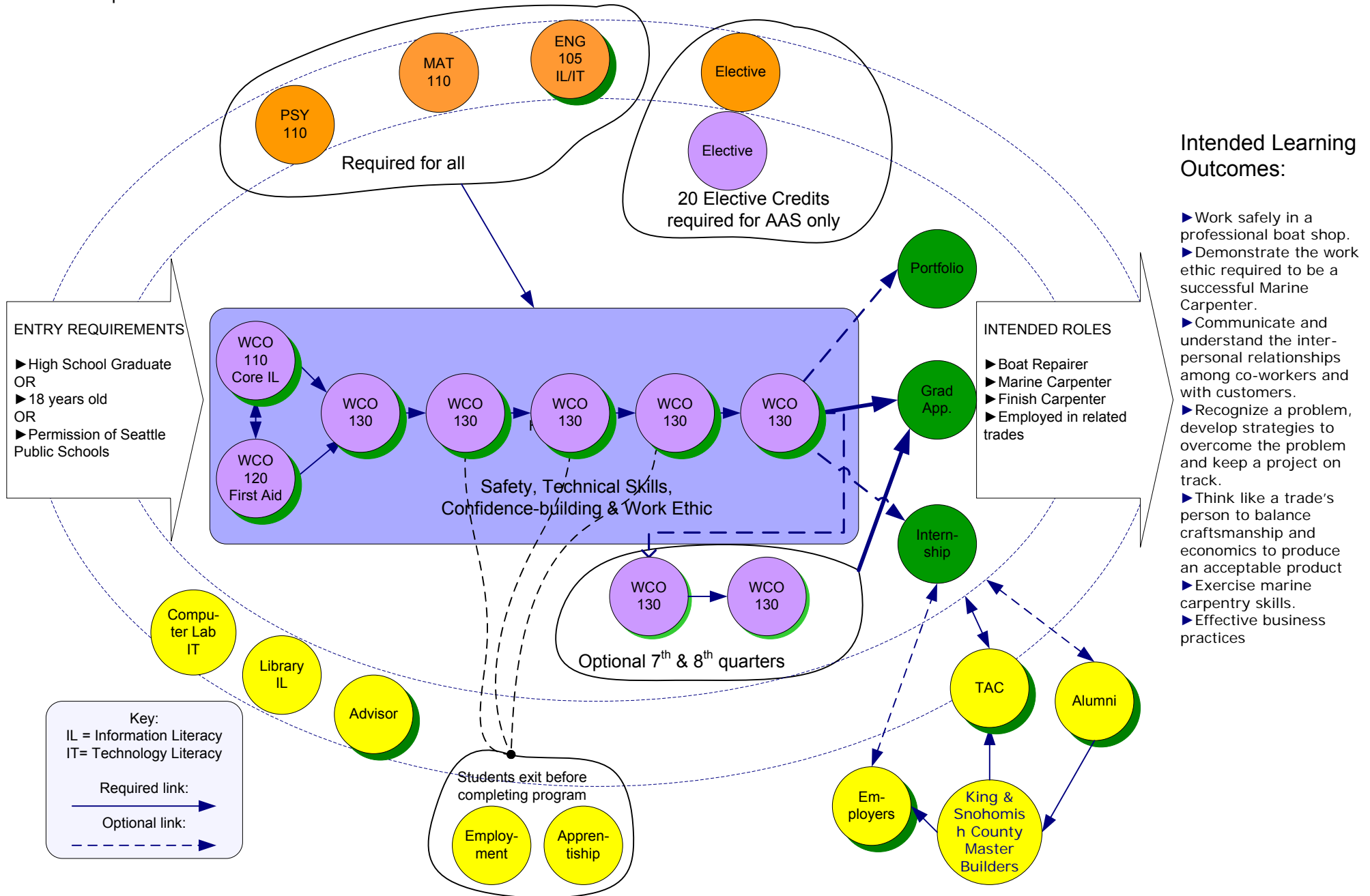
What must students be able to do before engaging in this work?

What learning experiences (courses) are necessary to prepare the student?

What will students do in here to demonstrate evidence of the outcome?

What do students need to be able to DO “out there” that we’re responsible for “in here”??

Program: Marine Carpentry
 Snapshot on: 26 October 2007



Program Assessment Inventory

Program: Marine Carpentry -- AAS and Certificate

Assessment methods used to determine that students are prepared to succeed and that they have achieved the program learning outcomes when they complete degrees or certificates.

	<i>Pre- program</i>	<i>Mid program</i>	<i>End of program</i>
<i>Students are prepared to learn (prerequisites)</i>			
ASSET test scores			
COMPASS test scores	<i>yes</i>		
SLEP test scores			
Other?			
<i>Students are assessed as they move through the program</i>			
Competencies assessment	<i>continuous</i>		
Internship feedback	<i>optional</i>		
Pre-Mid-Post assessment	<i>individualized</i>		
Service Learning experience feedback	<i>optional</i>		
Student course evaluations	<i>quarterly</i>		
Student focus groups			
Student grades	<i>quarterly</i>		
Student interviews			
Student self assessment	<i>continuous</i>		
Student surveys			
<i>Students are assessed as they complete the program</i>			
Completion statistics			<i>by college</i>
Capstone projects			<i>optional</i>
Graduation statistics			<i>by college</i>
Portfolios			<i>optional</i>
Presentations	<i>continuous</i>		
<i>External assessment data is collected</i>			
Transfer rates			<i>by college</i>
Employer surveys			<i>informal</i>
Technical Advisory Committee	<i>meets quarterly</i>		
License certification success rates			
Performance in 4 year programs			
Employment rates			<i>informal</i>
Salary statistics			<i>informal</i>
Survey of former students			<i>informal</i>
Other?	<i>two quarterly field trips</i>		

Marine Carpentry (AAS) – 2006 Learning Outcomes

Upon earning an AAS degree in Marine Carpentry a student will:

1. Work safely in a professional boat shop.
2. Demonstrate an understanding of the work ethic required to be a successful Marine Carpenter.
3. Communicate and understand the inter-personal relationships among co-workers and with customers.
4. Demonstrate the ability to recognize a problem, develop strategies to overcome the problem and keep a project on track.
5. Demonstrate the ability to think like a trades person to balance craftsmanship and economics to produce an acceptable product.
6. Master the skills to become employed as a marine carpenter or in a related field.
7. Demonstrate an enhanced understanding of the relationship of carpentry, cabinetmaking and marine carpentry and/or the business aspects of marine carpentry.

Marine Carpentry (Certificate) – 2006 Learning Outcomes

1. Upon earning a certificate in Marine Carpentry a student will:
2. Work safely in a professional boat shop.
3. Master the skills to become employed as a boat builder or in a related field.
4. Demonstrate an understanding of the work ethic required to be a successful boat builder.
5. Solve problems and arrive at affordable solutions.