SEATTLE COMMUNITY COLLEGES COURSE CODING APPROVAL FORM

College No. 63
College Name: NSCC ☑ SCCC ☐ SSQC ☐ SVI ☐
Date 10/05/02
Submitted by Patricia Clark Phone # 528-4523

☐ Add to inventory effective 2003/Winter year/quarter
☐ Delete from inventory effective _____ year/quarter
☐ Change to another CIP Code List old CIP Code _____
☐ Title Change only List old title _____
☐ Change status for AA degree requirements (Academic Transfer courses only. See #5 below)
☐ Other (specify) _____

Div/Dept Office of Instruction/Watch Technology Institute
Course No. HIN 221 CIP Code 47 • 0408 Institutional Intent 21

Institutional Intent

Course Title Watch Technology VI: Precision Timing 2
Fund Source ______ Administrative Unit Office of Budget 011-3H01
Instruction

1. Is this course a requirement for an approved Vocational Preparatory program?
   ☑ Yes ☐ No If yes, list Educational Program Code/EPC: _____

2. Does this course imply: Limited English Proficiency? ☐ Yes ☑ No

3. Does this course imply: Academic Disadvantaged? ☐ Yes ☑ No

4. Does this course contain a workplace training component? ☐ Yes ☑ No

5. Which, if any, AA Degree requirement(s) will this course satisfy? (Academic Transfer Courses only)

A. Special Requirements?
   ☐ Q Math/Q (Quantitative Reasoning)
   ☐ C Communication (Studies and Applications)

B. Distribution Areas
   ☐ Language and Communication
   ☐ Literature/History of Ideas
   ☐ Music, Art, and Drama
   ☐ Individuals and Societies
   ☐ United States Cultures

Credits 6 Is this a variable credit class? ☑ Yes ☐ No Faculty Contact Hours 110
Student Contact Hours: Lecture 22 Lab 88 Clinical ____ Other ____ System ____ Total ____

Originating Administrator Signature 10/25/02 Concurring Administrator/SCCC Date
Concurring Administrator/SSCC Date
Vice President of Instruction 10/28/02
Course/Changes on-line: 11/8/02 Date: CAS Approval: 13/01/03 Date:

le/CAS/CourseCodingForm2002
**NEW COURSE TRANSMITTAL FORM**

**Division:** Watch Technology Institute  
**Course Number:** HIN 221

**Course Name:** Watch Technology VI: Precision Timing 2  
**Contact Person:** Patricia Clark  
**Phone Number:** 528-4523

**Comments:** (Impact on existing college equipment in inventories and facilities, requirements on new equipment and facilities, information for advising, possible effect on library, media center, computer labs, copy center, and other college operations.

The Watch Technology Institute maintains its own library or resources. The program coordinator and faculty are the advisors for this program.

**Approval by Division:**  
Yes: X  
No:  
Date: 8/4/2002

**Approval by TAC:**  
Yes: X  
No:  
Date: 9/18/2002

**Course to be offered as Distance Learning?**  
Yes: X  
No:

**Areas of Knowledge (for transfer courses only): Committee chairs, initial and date)**

<table>
<thead>
<tr>
<th>Area</th>
<th>Initial Date</th>
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<tbody>
<tr>
<td>Language &amp; Communication</td>
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<tr>
<td>Literature/History of Ideas</td>
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<tr>
<td>Music, Art &amp; Drama</td>
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<td>Individuals &amp; Societies</td>
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<td>US Cultures</td>
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<tr>
<td>Global Studies</td>
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<tr>
<td>The Physical Universe</td>
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<tr>
<td>The Living World</td>
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<tr>
<td>Science, Technology &amp; the Environment</td>
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<tr>
<td>Communication &quot;C&quot;</td>
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</table>

**Attach course outline and route original form to:** (initial and date)

**Advising Center:** [Initial] 10/14/02  
**Library/Media:** [Initial] 9/26/02  
**Instructional Computing:** [Initial] 10/17/02  
**Credentials:** [Initial] 10/15/02

**Curriculum and Academic Standards Committee comments:**

CAS approved 10/08/02 Dave Eide

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**Recommend Approval**  
Yes: X  
No:  
Date: 10/23/02

**Signatures:**

- **Dean/Associate Dean—SSCC**  
- **Dean/Associate Dean—SCCC**

New Course Transmittal Document 2002 (pb/le 8/1/02)
Course Establishment Form

Outline

<table>
<thead>
<tr>
<th>Division:</th>
<th>Office of Instruction</th>
<th>Program/Dept:</th>
<th>Watch Technology Institute</th>
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<tbody>
<tr>
<td>Course Number:</td>
<td>HIN 221</td>
<td>Credits:</td>
<td>6</td>
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<tr>
<td>Course Title:</td>
<td>Watch Technology I: Precision Timing 2</td>
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<tr>
<td>Inst. Intent:</td>
<td>21 Vocational Preparatory</td>
<td>CIP:</td>
<td>47.0408</td>
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<tr>
<td>Fee:</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
</tbody>
</table>

Degree/Certificate Requirement:  Yes X No:
Name of Degree/Certificate: Wostep Certificate (External), Watch Technology Certificate and AAS Watch Technology
Distribution Requirement for AA/AAS: I
Transfer Status to 4-year institution: Yes No: X
If yes, please describe:

Course length: 1 qtr., 11 wks.
Course Contact Hours: 110
  Lecture: 22 hrs    Lab: 88 hrs.    Clinical: Other: System:
Prerequisite: Yes: X No:
If yes, please describe:
Co-requisites H 222 & 223. Students must have completed CIS 211, 212 & 213
Required Placement Tests: Yes No X
If yes, please describe:

Comments:
This course is taken in conjunction with HIN 222 and HIN 223

Course Description:
Students continue the study of the theory and practical application of the principles of precision timing.

Course Goals:

NSCC General Education Learning Outcomes and/or Related Instructional Outcomes (for technical courses) Met by Course:
1. Students should be able to define the terms and when relevant be able to make a diagram to illustrate the meaning of each. (Outcome 2F)
2. Students should be able to identify individual influences on timing by analyzing timing results. (Outcome 1B)

Course Outcomes/Learning Objectives:
1. Define the terms and how they relate to timekeeping instruments.
2. Demonstrate how all elements which have an influence on timing must work together for optimum timekeeping.
3. Describe how each element influences isochronism.

Topical Outline and/or Major Divisions:

I. Balance Spring
   A. Define function
   B. Pinning-point
      1. Definition
      2. Determine position
      3. Know the effects
   C. Regulating point
   D. Terminal curves
      1. Explain use
      2. Calculate their number.
   E. Determine C.G.S. number
   F. Adjustment of regulating pins

II. Balance Bridge
   A. Shock absorbing systems
      1. Kif
      2. Incabloc
      3. Miscellaneous
   B. Index assembly systems
      1. Fixed and moveable studs
      2. Regulating pins
         a. Pin and boot variations
         b. Etachron system
      3. Free sprung balance
   C. Balance spring exercises
      1. Balance spring counting
         a. Truing
         b. Poising (Le Roy theory)
### Course Requirements (Expectations of Students)

Students need to develop a working vocabulary of the terms used in watchmaking to understand the various elements of precision timekeeping.

Students will be expected to demonstrate the ability to perform specific competencies listed under Course Outcomes/Learning Objectives.

### Methods of Assessment/Evaluation:

1. Written and practical tests.
2. Lab assignments.
3. Final grades are assigned according to published grading standards for course.

### Required Text(s) and/or Materials:

As determined by instructor.

### Supplemental Text(s) and/or Materials:

As required by instructor.

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**Outline Developed by:** Elaine Rolf/Patricia Clark  
**Date:** 10/4/02

**Outline Revised by:**  
**Date:**

Course Establishment Form 2001  
le 10/11/01