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**Part 1: Course Details**

**Division/Department requesting change: Advanced Technology**

**Course developer name and contact information: Pat O’Connor, o’connorp@lanecc.edu 5710**

**Division Dean: Pat O’Connor, ATD/CAHRTM Dean**

**Academic year (e.g., 2018-19) change will take effect: 202010 (Summer 2019—2019/20 School Year)**

**TYPE OF PROPOSAL**

 [x] **New course (brand new course or courses that have not been offered in three or more years)**

 XX **Currently a 199 or 299 experimental course?** **Attach** **the 199/299** **course outline or syllabus**

 [ ]  New 199/299 experimental course (May be offered two times over a two-year period. After that, experimental courses to be submitted as a new course.)

**TYPE OF COURSE**

[ ]  **Lower Division Collegiate xx** **Professional/Technical** [ ]  **Developmental, numbered below 100**

**COURSE NUMBER AND TITLE**

**To determine a transfer course number, check the** [Catalog of Lower Division Collegiate Courses](https://www.lanecc.edu/sites/default/files/currsched/ldccatalog01.docx) or do a web search for schools with similar courses. For CTE, look at schools with similar courses or contact the [Curriculum Office](https://www.lanecc.edu/currsched/curriculum) for help.

|  |  |  |
| --- | --- | --- |
| **Course Prefix/ Number**  | **Short Course Title for Banner (30 character limit)** | **Full Course Title for print catalog**  |
| **APR 173** | **Sheet Metal Formulas** | **Sheet Metal Formulas** |

**COURSE DESCRIPTION (aim for 300-400 characters/approximately 60-70 words) For help and examples, see** [Sample Course Descriptions](https://www.lanecc.edu/currsched/sample-course-descriptions)**.**

**Covers fractions and decimals, geometric shapes, equation solutions, ratios and proportions, perimeters, areas, and volumes of geometric shapes; powers; and, use of the scientific calculator. Emphasis is on applications to applied sheet metal fabricators.**

**PREREQUISITES, CO-REQUISITES, GRADE OPTIONS, CREDITS**

Prerequisite courses: \_Entry into Apprenticeship Program\_\_\_\_\_\_\_\_\_\_\_\_\_

Placement test code and scores (e.g., 4cpa score of 75-120; if you need a code, contact testing) \_\_\_\_\_NA\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Co-requisite courses: NA

Grade Option: X Graded (with P/NP option)  [ ]  Pass/No Pass only

|  |  |  |
| --- | --- | --- |
| **Credit Breakdown**\_\_4\_ Lecture\_\_\_ Lecture/Lab\_\_\_ Lab\_4\_\_ Total Credits | **Contact Hours Per Week**\_4\_ Lecture\_\_\_ Lecture/Lab\_\_\_ Lab\_4\_ Total Contact Hours per week | **Contact Hour Formula** **1 lecture = 1 contact hour** **1 lecture/lab = 2 contact hours** **1 lab = 3 contact hours**  |

# **Part 2: Rationale, Equity, Library Resources, Course Overlap**

**RATIONALE AND CONTEXT Describe the context and rationale for the new course. How will this course meet the needs of transfer students or employers? What is the demand for this course? How does this proposal further the goals of the program or department? Provide details.**

**Class is a requirement for sheet metal apprentices who desire to eventually become journeymen. It meets the needs of the student and the employer by providing a common measure of mathematical expression in the field and the recognized use of formulas associated with sheet metals. It supports the College’s goal to meet industry needs. This particular curriculum has been successfully used for the last 40 years and is still being asked for. Local industry as well as the Area 11 –Sheet Metal/HVAC Environmental Systems Joint Apprenticeship Training Council specifically asked for this class in this format. A similar class noted as APR 144 is currently being offered at Central Oregon Community College and has been offered there for the past 40 years.**

**CURRICULUM EQUITY STATEMENT** Please do not copy/paste the [COPPS equity statement](https://www.lanecc.edu/copps/documents/curriculum-equity). Reflect how your course supports equity. To promote an environment where all learners are encouraged to develop their full potential, this course will support Lane’s Curriculum Equity policy in the following way(s):

This course offers all learners in Lane County that want to pursue this coursework the opportunity to do so without having to travel to Central Oregon to pursue these essential training opportunities .

**LIBRARY CONSULTATION Please contact your liaison librarian to schedule a 30+ minute individualized instructional consultation and collaboration session. In addition to your specific course-related questions, your librarian will be prepared to share:**

* **Library resources and services that support your teaching and student learning needs**
* **OER (Open Educational Resources) options that align with your program and course curriculum**
* **Strategies for integrating the development of information literacy skills into course content and/or assignments**

Please allow one week for the librarian to prepare for your consultation. If you are not sure who your liaison librarian is, you can either look it up on the [Library’s website](https://library.lanecc.edu/services/liaison) or call the Library Reference Desk at 463-5355. (Librarian signature required above.)

**COURSE OVERLAP Indicate any topic/content overlap with other courses. How will this course's topics and content be differentiated?** If there is overlap, faculty of overlapping courses must **agree on the extent of overlap and** **include a rationale** explaining its necessity. The dean of the division in which overlap occurs must sign approval (see checklist).

|  |  |  |  |
| --- | --- | --- | --- |
| Division/department | Course Number / Title | Rationale | Dean of overlap course (name) |
|  |  | none |  |
|  |  |  |  |

**CAREER/TECHNICAL COURSE TRACKING (required only for career/technical courses)**

Career/Technical courses are tracked within programs for purposes of Carl Perkins funding and budgetary planning. Indicate all degree or certificate programs for which this course will be required.

|  |  |
| --- | --- |
| **Programs in which course will be required** | **Division** |
| Apprenticeship—Sheet Metal | ATD |
|  |  |

# **Part 3: Outcomes, Assessments, and Topics**

**List course outcomes, Core Learning Outcomes (CLOs), and Assessments** List course learning outcomes. How will learning outcomes be emphasized and measured through course assessments? How will you incorporate Lane’s [Core Learning Outcomes and Dimensions](https://www.lanecc.edu/assessment/core-learning-outcomes)? Need help? Contact Tammy Salman.

|  |  |  |
| --- | --- | --- |
| [**Core Learning Outcomes and Dimension**s](https://www.lanecc.edu/assessment/core-learning-outcomes) **EXAMPLE** CLO 1.2:Determine information need, find and cite relevant information | **COURSE-LEVEL LEARNING OUTCOMES** (course outcomes) [See this page for guidance on writing outcomes](https://www.lanecc.edu/assessment/developing-and-refining-learning-outcomes)**EXAMPLE**  Describe and explain general plant structure and function in relation to plant growth and development. Upon successful completion of this course, students will be able to: | **ASSESSMENTS** Include specific assignments you will use to measure/observe student attainment of outcomes.  |
| **CLO 1.2: Determine information need, find and cite relevant information** | **1. Calculate elementary algebraic equations and formulas.****2. Apply appropriate formulas to mathematical situations.****3. Be familiar with basic geometric shapes.****4. Solve equations involving addition, subtraction, multiplication, and division.****5. Solve problems involving ratios and proportions.****6. Determine the perimeter of geometric** **shapes and circumference of a circle.****7. Determine the area and volume of geometric shapes.****8. Use trigonometric sine, cosine, and tangent functions to find right triangle sides and angles.** | Homework; quizzes, mid-term and final as well as in-class interactionsHomework; quizzes, mid-term and final as well as in-class interactionsHomework; quizzes, mid-term and final as well as in-class interactionsHomework; quizzes, mid-term and final as well as in-class interactionsHomework; quizzes, mid-term and final as well as in-class interactionsHomework; quizzes, mid-term and final as well as in-class interactionsHomework; quizzes, mid-term and final as well as in-class interactions |

**COMPETENCIES AND TOPICS COVERED (course outline)**

Example: [Course Outline Sample](https://www.lanecc.edu/copps/course-outline-sample) (from COPPS)

Topics closely follow the progression of the text Mathematics for Sheet Metal Fabrication ISBN:0-8273-0295-9

ISBN-13:978-08273-0295-2

Topics:

1. Fractions and Decimals

2. Linear Measure

3. Averages; Percentages; Costs; and Wages

4. Geometry

5. Equations

6. Ratio and Proportions

7. Perimeter

8. Area Measure

9. Volume Measure

10. Formulas: Special Problems

11. Trigonometry

12. Graphs

13. Practical Problems

See attached APR 199 Syllabus for Additional details

# **Part 4: Financial and Student Impact**

**Financial Impact Analysis**

Describe the financial impact of the proposed course, including: Instructional costs; workload (both FT and PT faculty and classified staff); physical space requirements (e.g., labs); additional equipment needs; additional fees; any cost reductions.

**No change**

**Student Impact Analysis**

Describe the proposed course’s potential impact on students, including: Effect of changes on program requirements, articulations, cost, credit load, avoiding excess credits in transfer, financial aid credit limits, completion, and enrollments; determination of how new/revised courses transfer to four-year schools (please consult with your advisor).

**Class provides Sheet Metal Apprentices the opportunity to take the course in Eugene instead of traveling to Central Oregon.**

For CTE, what impact will this course have on program credits (increase, decrease, or no change)? \_**no change**\_\_

# **Part 5: Degree Requirements Applications (if applicable)**

**If applying for any of the following**, check the appropriate boxes and include your completed degree requirements forms with this course proposal. Go to the [Curriculum Office website](https://www.lanecc.edu/currsched/curriculum-forms) to download the appropriate forms.

[ ]  AAOT (Career Technical courses not eligible)

[ ]  Arts & Letters

[ ]  Cultural Literacy

[ ]  Information Literacy

[ ]  Mathematics

[ ]  Science /Computer Science

[ ]  Social Sciences

[ ]  Speech/Oral Communication

 [ ]  Health/Wellness/Fitness (all degrees)

 [ ]  Human Relations designation (for AAS degrees and certificates)

 [ ]  Sustainability course status (optional)

**College Approval (before signing, please see Curriculum Committee recommendations for this course in the committee’s** [**meeting minutes**](https://www.lanecc.edu/currsched/agendas)**)**

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Executive Dean for Academic Affairs Date

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Vice President for Academic & Student Affairs Date