

FOR OFFICE USE ONLY:

COURSE: INDT 100
REVISION DATE: 4/6/12

Curriculum Committee: _____
Instruction Council: _____
Date Filed in Library: _____

COURSE OUTLINE

Please check the appropriate category for the level of revision: *(see Appendix B for further clarification)*

- ROUTINE**
- MAJOR**
- NEW COURSE**

Department: Industrial Technology Number: 100 Credits: 3

Title: Introduction to Aerospace Electronics

Abbreviated Title (20 Characters): Intro Aerospace

Weekly Student Contact Hours x 10-Week Quarter: 40
Typically: 4 hours per week

Lecture Hours Per Quarter: 20
Non-Lecture Hours Quarter: 20

- Lab
- Clinic
- Other

Total Hours Per Quarter (lecture and non-lecture): 40

Intended Use of the Course:

- A. Not Intended for Transfer, Typically Numbered Below 100
- B. Life Skills
 - Elective
 - Restricted Elective
- C. Intended for Transfer as Distribution: *(please mark one of the following):*
 - Writing Skills
 - Quantitative Skills
 - Lab Natural Science
 - Humanities with Performance
 - Social Sciences
 - Non-lab Natural Science
 - Humanities w/o Performance
- D. Elective
- E. Restricted Elective – Courses numbered 100 or higher that do not normally transfer to baccalaureate institutions.

Course catalog description: (50 words or less):

Introduction to careers in aerospace and related industries. Hands-on practice in basic electrical/electronic laboratory procedures including measurement, meters, use and maintenance of other tools and equipment. Emphasizes personal safety and maintaining a safe workplace.

Prerequisites: None

Name of Originator (please type in): Zack Jacobson **Date:** 4/6/12

Signature of Administrator: _____ **Date:** _____

COURSE OBJECTIVES

I. Student Learning Outcomes: *(Minimum of three)*

Please include skills, concepts, and/or measurable outcomes that a student is expected to have successfully achieved in this course. These may be designated as separate categories for primary and secondary objectives.

Please remember to word your outcomes to indicate what students will know and/or be able to do after successfully completing the course (not what they will “gain” or “develop” during the course).

Upon completion of this course, successful students will (be able to):

1. Demonstrate safe work habits in the lab and workspaces
2. Use basic hand tools safely and effectively
3. Use electrical meters accurately
4. Perform measurements using a variety of tools
5. Convert measurements between various unit systems

II. WVC Core Abilities Outcomes *(General Education):*

Please include as many as are measurable and appropriate for this course. Be sure to indicate by what means students will demonstrate achievement in the selected abilities after successful completion of this course. Delete any abilities that do not apply. (For examples of language used see Appendix C)

Upon completion of this course, successful students will: *(please use complete sentences)*

1. Begin to communicate effectively using the terminology of the electrical/electronic industries and units of measure.
2. Locate, use and analyze information and technological resources through the use of classroom computers and manuals to research the proper handling of hazardous materials.
3. Act responsibly as an individual and as a member of a team or group as a result of actively participating in group projects in the lab and classroom, and while using and maintaining shared equipment related to the electronics industry.
4. Seek knowledge, information and diverse viewpoints by using the Internet, classroom computers, and interacting with their peers and supervisors.

III. List core topics of this course.

These should be topics that are the main body of the course. List topics so that other institutions should be able to identify what the course content is. List as optional any topics that may not be covered every quarter.

1. Careers in aerospace and electrical/electronic industries
2. Lab safety and safety equipment
3. Hand tools such as: wire strippers, crimpers, wire cutters, drills, rivet guns, screw guns and their maintenance
4. Tools for measurement and their maintenance
5. Measurement techniques
6. Accuracy and tolerances in measurement
7. Units conversion
8. Meters and their maintenance

IV. Text and Reference Materials:

- a) *State criteria by which texts are chosen, and*
- b) *the position(s) of the instructor(s) and/or administrators who determines the text(s)*.*
- a) Materials will be chosen which adequately cover the core topics
- b) Instructor and program coordinator will determine the materials.

**Texts may be specified. However, if texts are specified then future changes in texts require a course outline revision.*

V. Special Equipment, Supplies and/or Materials Required (*include library/media needs*):

Multimedia resources for instruction

Lab space equipped with various hand tools and measuring instruments

VI. Transferability: *Please indicate in the chart below how your course is accepted by the four-year institution after you have checked with the transfer guides. For on-line addresses for transfer guides see Appendix A.*

Verifying transferability: Use transfer guides provided for all five of the four-year institutions (BIs) listed below, to determine if the WVC course:

- *Has an equivalent course at the BIs. If so, give the COURSE EQUIVALENT from each of the BIs in the 4th column below.*
- *Transfers, but only as credit (e.g., MATH 1XX) not as a specific university class, indicate this in the 3rd column below.*
- *Transfers as credit, ONLY if the student transfers with a degree, check the 2nd column below.*
- *Is Restricted Credit, as defined by DTA and ICRC, check the first column below.*

Improving transferability of this course. To improve the transferability of this course, see Appendix A

	← Least transferable			Most transferable →
	RESTRICTED CREDIT (as defined by DTA and ICRC)	GER (General Education Requirement) with our degree; Generally does not transfer unless with DTA completed)	GTC (General Transfer Credit) Transfers w/ or w/o the degree; Generally transfers as credit without completing DTA but only as XX or no specific equivalent course	COURSE EQUIVALENT (please list equivalent course descriptor/ number) Transfers w/or w/o degree because it has specific course equivalent
Eastern WU				
Central WU				
WSU				
Western WU				
UW				

- VII. Lab Fees:** Course already has an existing Lab Fee: YES NO
 This is a **NEW** course and needs to establish a Lab Fee: YES NO
 Existing Lab Fee: \$ _____ Suggested **NEW** Lab Fee: \$ _____

VIII. Distance Learning: This course is being offered via: *(check all that apply)*

- ITV WAOL
 Telecourse WVC On-Line

If NOT originating at WVC, WVC faculty and administrators who oversee this discipline **MUST** verify that class meets the WVC course outline for outcomes, core abilities, and topics.

For course development stipends the appropriate Dean must COMPLETE this section:

- NEW Course development Online or Other (check one)
 Conversion of an existing course for Hybrid or Major online revision (check one)

IX. Changes: For your **Routine or Major Revision**, please list or briefly describe all changes made to this course outline compared to the previous outline. *(see Appendix B for categories to report)*

APPENDIX – A

TRANSFER GUIDE ADDRESSES

- a. Central Washington Univ.— http://www.cwu.edu/~regi/equivalencies/09_college_list.html
- b. Eastern Washington Univ.— https://eagleapp02.ewu.edu/PROD-DAD/ewudarsxgd.p_lookup_sbgi_code
- c. U of W-
<http://admit.washington.edu/Requirements/Transfer/Plan/EquivalencyGuide/SchoolGuide?EquivGuide=WenatcheeValley>
- d. Washington State Univ.— <https://webapps.wsu.edu/ais/myinfoservices/darwintce/index.aspx>
- e. Western Washington. Univ.— <http://admissions.wwu.edu/transfer/cc/>
- f. State Board — <http://www.sbctc.ctc.edu/college/ e-transfercourseequiv.aspx>

Improving transferability of this course. To improve the transferability of this course,

- Contact the department chair at the BI whose address should be available on the BI's Webpages to determine what changes might be made to the WVC Outline to better align it with a course offered at the BI.
- Articulate an agreement with the BI by contacting the ICRC representative at the BI.
Addresses are listed Below.
- Contact WVC's ICRC representative, Walt Tribley for assistance.
- After receiving responses from the ICRC representative and the appropriate department at each BI, please forward new agreements and copies of supporting emails to Instruction Office along with course outline.

ICRC REPRESENTATIVES

CWU:	Rose Spodobalski-Brower Transfer Articulation Coordinator Phone: (509) 963-3552, mailto: spodbrow@cwu.edu
EWU:	Keith Klauss Assistant Director of Admissions Phone: (509) 359-2397, keith.klauss@ewu.edu
U of Washington:	Emily Leggio Senior Assistant Director of Admissions Phone: (206) 685-2584 eleggio@u.washington.edu
Washington State:	Dr. Susan Poch Assoc. VP for Educational Development Phone: (509) 335-6000, poch@wsu.edu
WWU:	Jeanne Gaffney Senior Assistant Director of Admissions College Relations & Transfer Articulation Phone: (360) 650-3966, jeanne.gaffney@wwu.edu

APPENDIX – B

CATEGORY DESCRIPTIONS

ROUTINE revisions include:

- Updates on the latest template in the three-year cycle of review,
- Changes in order material is presented, (*see page 2 for core topics*),
- Changes in textbook. (*see page 2*)
- Transferability (*see page 3*)

MAJOR revisions include:

- Abbreviated Title Change (*see page 1*)
- Core Abilities (*see page 2*)
- Course Content (*see page 2*)
- Course Description (*see page 1*)
- Course Title Change (*see page 1*)
- Intended Use of Course (*see page 1*)
- Lecture/Lab Hour Breakdown (*see page 1*)
- Number of Credits (*see page 1*)
- Prerequisite(s) (*see page 1*)
- Student Learning Outcomes (*see page 2*)

For **MAJOR revisions or NEW courses**, please complete a Curriculum Revision Checklist form in Outlook under All Public Folders/College Standing Committees/ Curriculum/Forms. The checklist **MUST** be submitted along with this course outline.

APPENDIX – C

**Examples of good practice for core abilities statements.
Use for examples only, to help faculty write their own outlines.
Remember to delete any that do not apply to your course.**

II. WVC Core Abilities Outcomes (*General Education*):

Please include as many as are measurable and appropriate for this course. Be sure to indicate by what means students will demonstrate achievement in the selected abilities after successful completion of this course. *Delete any abilities that do not apply.*

Upon completion of this course, successful students will: (*please complete sentences*)

1. Think critically by: (example: analyze, synthesize, evaluate, and apply, problem solve, reason qualitatively and quantitatively)

Think critically (analyze, synthesize, evaluate and apply, problem solve, reason qualitatively and quantitatively) as demonstrated by expressing orally and in writing various relationships between the general thesis and the specific support.

2. Communicate skillfully in diverse ways and in diverse situations by:

Begin to communicate effectively using the language of payroll and excise taxes in class discussions.

3. Locate, use and analyze information and technological resources by:

Use web-based resources and print periodicals to expand knowledge and apply key business concepts.

Locate, use and analyze information and technology resources as a result of laboratory work using computer interfaces for data collection and analysis, and by extensive use of online resources and discussion protocols to discuss topics and weekly communicate electronically in a structured courseware environment. And by actively and effectively participating in information research on one or more parameter as part of the group project.

4. Act responsibly as an individual and as a member of a team or group by:

Act responsibly as an individual and as a member of a team or group as a result of actively and effectively participating in the research and oral presentation required for the group project and weekly participation in online discussion forums.

5. Seek knowledge, information and diverse viewpoints by:

Seek knowledge, information, and diverse viewpoints through the writing and revising process.

Begin to think, write, and read at a scientific level about plants.

6. Clarify and apply a personal set of values/ethics by:

Clarifying and applying a personal set of values/ethics as demonstrated through writing that employs personal experience as the basis for assertion.