**CURRICULUM COMMITTEE COURSE ADDITION FORM**

**DATE:** November 25, 2009  
**DEPARTMENT CHAIR:** Joe Livingston  
**DEPARTMENT:** Technology Education  
**DISCIPLINE WHERE COURSE RESIDES:** Avionics

(ATTACH ALL THAT APPLY)

- [X] ADD A NEW COURSE TO THE COURSE INVENTORY  
- [X] ADD A NEW COURSE TO THE CATALOG  

(Attach Course Syllabus and Learning Outcomes)

<table>
<thead>
<tr>
<th>Course Title: Emergent Technologies in Aviation Electronic Systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Prefix: AVNC</td>
<td></td>
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<tr>
<td>Course Number: 1325</td>
<td></td>
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</tbody>
</table>

**Course Description:** Introduction to the emerging technologies and systems recently developed for enhanced safety as well as improved navigational system in which field repairs are generally not performed.

<table>
<thead>
<tr>
<th>Course Prerequisites: None</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Lecture Hours: 3</td>
<td></td>
</tr>
<tr>
<td>Lab Hours: 0</td>
<td></td>
</tr>
<tr>
<td>Other Type Hours: 0</td>
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<tr>
<td>Semester Credit Hours: 3</td>
<td></td>
</tr>
<tr>
<td>Total Contact Hours: 48</td>
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</tr>
</tbody>
</table>

Core Course: [X] Yes [ ] No  
If yes, date approved by Core Curriculum Committee:

| Program(s) this course will support: Avionics |  |

Replacement Course: [ ] Yes [X] No  
If yes, identify course:

Will this be taught by existing and budgeted faculty positions? [X] Yes [ ] No

Will this course require special equipment? [X] Yes [ ] No  
If yes, explain and address availability or need to purchase special equipment.

For Registrar's Office Processing:
| CIP Code Number: 47.0609 | Lab Fees: 24.00 | Insurance: 0 | Other Fees: 0 |  |

Signature Indicates Approval:
- **Department Chair:**  
- **Dean:**  
- **Curriculum Committee Approval:** [X] Yes [ ] No  
- **Curriculum Committee Chair:**  
- **Vice President of Instruction:**

Distribution of Copies by the Office of the Vice President of Instruction:  
(Original remains in the Office of the Vice President of Instruction.)

- [ ] Curriculum Committee Website  
- [ ] Division Dean  
- [ ] Financial Aid Director

- [ ] Registrar  
- [ ] Department Chair
Emerging Technologies in Aviation Electronic Systems

<table>
<thead>
<tr>
<th>CIP</th>
<th>Rubric</th>
<th>Number</th>
<th>Course Title</th>
<th>Status</th>
<th>Semester Credit Hrs</th>
<th>Min Cont Hrs</th>
<th>Max Cont Hrs</th>
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</thead>
<tbody>
<tr>
<td>47.0609</td>
<td>AVNC</td>
<td>1325</td>
<td>Emerging Technologies in Aviation Electronic Systems</td>
<td>Active</td>
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<td>48</td>
<td>64</td>
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</table>

**Course Level:** Introductory

**Course Description:** Introduction to the emerging technologies and systems recently developed for enhanced safety as well as improved navigational system in which field repairs are generally not performed.

**End-of-Course Outcomes:** Identify current emerging systems being developed; list functional requirements for each system; describe the benefits of each system; and demonstrate basic system operation.

**Lab Recommended**

**CIP Code Description:** 47.0609 (Avionics Maintenance Technology/Technician)

**Year:** 2007
CURRICULUM COMMITTEE COURSE ADDITION FORM
2009-2010

DATE: November 25, 2009
DEPARTMENT CHAIR: Joe Livingston
DEPARTMENT: Technology Education
DISCIPLINE WHERE COURSE RESIDES: Avionics

(Attach Course Syllabus and Learning Outcomes)

Course Title: Aviation Communications Component Level Repair
Course Prefix: AVNC
Course Number: 2357

Skills development in component level repair of modern aviation communications and audio equipment. Emphasis on equipment block diagram and specialized test equipment will be covered.

Course Prerequisites: None
Course REM Levels: R 1  E 1  M 1
Lecture Hours: 2
Lab Hours: 4
Other Type Hours: 0
Semester Credit Hours: 3
Total Contact Hours: 96
Core Course: [ ] Yes  [ ] No
If yes, date approved by Core Curriculum Committee:
Program(s) this course will support:
Avionics
Replacing a Course? [ ] Yes  [ ] No  If yes, identify course:
Will this be taught by existing and budgeted faculty positions?  [ ] Yes  [ ] No
Will this course require special equipment? [ ] Yes  [ ] No
If yes, explain and address availability or need to purchase special equipment.

For Registrar's Office Processing:
CIP Code Number 47.0609  Lab Fees 24.00  Insurance 0  Other Fees 0

Signature Indicates Approval:
Department Chair: ___________________________  Date: 11/3/09
Dean: ___________________________  Date: 12-1-09
Curriculum Committee Approval:  [ ] Yes  [ ] No
Curriculum Committee Chair: ___________________________  Date: ____________
Vice President of Instruction: ___________________________  Date: ____________

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[ ] Curriculum Committee Website  [ ] Division Dean  [ ] Financial Aid Director
[ ] Registrar  [ ] Department Chair
## Workforce Education Course Manual, 2009-2010

### WECM Course

#### Aviation Communication Component Level Repair

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<th>Min Cont Hrs</th>
<th>Max Cont Hrs</th>
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<tr>
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<td>AVNC</td>
<td>2357</td>
<td>Aviation Communication Component Level Repair</td>
<td>Active</td>
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<tr>
<td>47.0609</td>
<td>AVNC</td>
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<td>Aviation Communication Component Level Repair</td>
<td>Active</td>
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</tbody>
</table>

**Course Level:** Advanced

**Course Description:** Skills development in component level repair of modern aviation communications and audio equipment. Emphasis on equipment block diagram and specialized test equipment will be covered.

**End-of-Course Outcomes:** Draw and label a block diagram Amplitude Modulated (AM) transmitter; describe the technique used to amplitude modulate a carrier signal in a common AM Very High Frequency (VHF) communications system; draw and label a block diagram of a superheterodyne AM receiver; describe the technical operation of a common squelch circuit, audio compressor circuit, and automatic gain control circuit; align the transmitter and receiver of an aircraft communications radio; troubleshoot and repair an aircraft communications radio; draw and label a block diagram of a common aircraft audio panel; describe the technical operation of a common aircraft audio panel; troubleshoot and repair a common aircraft audio panel.

**Lab Recommended**

**CIP Code Description:** 47.0609 (Avionics Maintenance Technology/Technician)

**Year:** 2007