

COMPUTER-AIDED DRAFTING TECHNICIAN (Upgrade) (120 Hours)

Course No.: 79-25-75

COMPETENCY CHECKLIST

Student Name _____

Teacher Name _____ School Site _____

Start Date _____ Completion Date _____ Certificate Date _____

Teacher Signature _____ Student Signature _____

(Signatures verify completion of course competencies)

A. SCHEMATIC DIAGRAMS (18 hrs)

- _____ 1. Estimate size of drawing sheet
- _____ 2. Demo use of electronic template
- _____ 3. Demo reference designation of components
- _____ 4. Compile a reference notebook

B. BLOCK DIAGRAMS (6 hrs)

- _____ 1. Determine/calculate sheet size requirements
- _____ 2. Determine direction of signal flow
- _____ 3. Demo use/knowledge of abbreviations list
- _____ 4. Demo use of rectangular block
- _____ 5. Demo use of arrows

C. MILITARY STANDARDS (9 hrs)

- _____ 1. Demo use of military standards index
- _____ 2. Demo use of military standards sheets
- _____ 3. Demo locating information data
- _____ 4. Comprehend and use engineering drawings
- _____ 5. Demo use of electronic parts list

D. SPECIFICATION CONTROL DRAWINGS (6 hrs)

- _____ 1. Draw electronic components
- _____ 2. Use specification notes

E. PRINTED CIRCUIT BOARDS (30 hrs)

- _____ 1. Develop schematic master drill drawing
- _____ 2. Construct assembly and parts list
- _____ 3. Prepare printed circuit board as directed
- _____ 4. Prepare master as directed
- _____ 5. Draw printed circuit board as directed
- _____ 6. Construct assemble drawing w/parts list

F. COLOR CODES (3 hrs)

- _____ 1. Identify resistor and capacitor ratings
- _____ 2. Identify/explain each of 10 color codes

G. LOGIC DIAGRAMS (9 hrs)

- _____ 1. Explain logic symbol ratio
- _____ 2. Use of military standards logic template
- _____ 3. Use of logic reference designations
- _____ 4. Correct circuitry flow thru use of arrows

H. INTEGRATED CIRCUIT DRAWING (28 hrs)

- _____ 1. Use and construction of circuit elements
- _____ 2. Requirements: integrated circuit design layout
- _____ 3. Construct integrated circuit drawing

I. INTERCONNECTION DIAGRAMS (6 hrs)

- _____ 1. Design and application of listed references

J. DRAFTING MACHINE (4 hrs)

- _____ 1. Knowledge/use of drafting machine scales
- _____ 2. Demo correct angle construction

K. EMPLOYABILITY SKILLS (1 hr)

- _____ 1. Career opportunities and projected trends
- _____ 2. Setting personal goals and objectives
- _____ 3. Develop career portfolio w/listed documents
- _____ 4. Identify/demo interviewing techniques
- _____ 5. Customer service as method to build business