Models for Integrating IELCE and IET

CASAS SUMMER INSTITUTE, ANAHEIM, CALIFORNIA

JUNE 12, 2019, 1:30 PM - 3 PM

SIGRUN UTASH, SIMI INSTITUTE FOR CAREERS AND EDUCATION

Integrated EL Civics (IELCE) curriculum must support Integrated Education and Training (IET) to prepare learners for the workforce.

This session will describe the Machine Tech IET at Simi Institute for Careers and Education.

We will discuss our program model, our challenges & our successes.

Simi Institute for Careers and Education

between 2,000 – 3,000 students enrolled
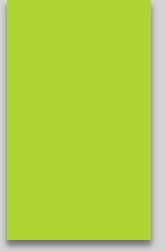
around 400 ESL students enrolled

CTE programs:

- Business & Computer Tech
- Computer Graphics
- Cosmetology
- Dental
- Machine Tech

- Medical
- Real Estate
- Upholstery
- Welding

REASONS FOR and BENEFITS OF IET

CDE IET Toolkit (2017)

"Specifically, the Integrated EL Civics program must be designed to:

- ❖ *Prepare ELLs for, and place in, **unsubsidized employment** in **in-demand industries and occupations** that **lead to economic self-sufficiency**; and*

- ❖ ***Integrate with the local workforce development system** and its functions to carry out the activities of the program."*

Local need

Haas Automation – One of the world's largest manufacturers of precision machine tools

Headquartered in Oxnard, CA

Produce 13,000 machines per year

Potential employer

Local manufacturing companies use Haas equipment and need skilled operators

Job prospects and sustainable wage:

Manufacturing jobs in our area are plentiful

Students with 1 to 2 course certificates can earn around **$15 per hour to start**

With1 year's experience can earn as much as **$20 per hour**

With a few years' experience workers can earn between **$30 - $35 per hour**

Financial assistance for CTE class tuition is available thanks to Haas' generous grants to support our program

PREPARING FOR OUR IET

Why Machine Technology?

Students do not need a HS diploma or GED to enroll in the program

Employers in this field do not generally require HS diploma/GED as a
condition for employment

Preparing for employment

Students can earn certificates of completion for **school courses**

NIMS (National Institute of Metalworking Skills) certification

In addition to school course certificates, students have the opportunity to prepare for and take **nationally-recognized portable certification tests** which demonstrate validation of training competencies

How we got started

ESL, CTE, and Assistant Principal participated in a CALPRO online course

This is where our collaboration began

One component of course was to write an Action Plan

Program Name: *Simi Institute – Pilot for ESL Students / Machine Technology Career Tech Program*
IET Model Selected: *Alternating Teacher Model*

Step #	Timeline (including concrete deadlines)	Action step	Person responsible (name and role)	Resources needed (including budget)
1	April/May 2017	Needs assessment/survey: Survey <u>students</u> - to determine what programs they are interested in enrolling in Survey <u>staff</u> (instructors) to determine which programs have students who are struggling and whose students would benefit from IET	Assistant Principal	Time, Google Forms, Instructors to encourage / initiate students to take survey.

| April/May 2017 | Get authorization from admin to begin process of planning and implementing proposed IET program
　Be ready to provide rationale:
　　WIOA
　　IELCE (EL Civics) COAAPs
　　- 2017 - 2108 school year will require establishing a link between IELCE instruction/ assessment and Career Pathways (243 funds) | Assistant Principal
Principal | Keeping principal in planning loop and keep her apprised of WIOA expectations as demonstrated in WIOA application. |

Generate student interest

Take students on an "in-school" field trip to Machine Tech

Students meet the instructor who will:

   motivate them by discussing the potential for earning a good hourly wage in this field

   explain skills students will learn in the program

   encourage ELLs to enroll
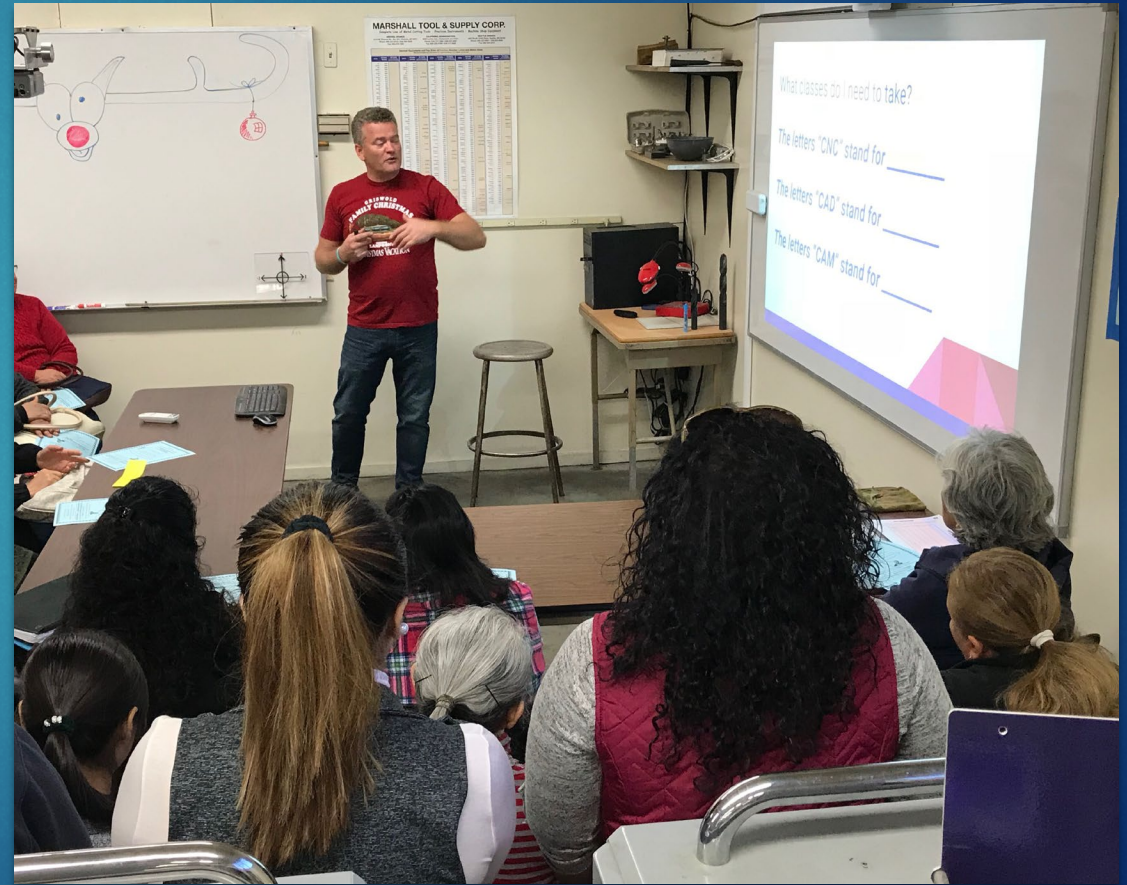
Generate student interest:

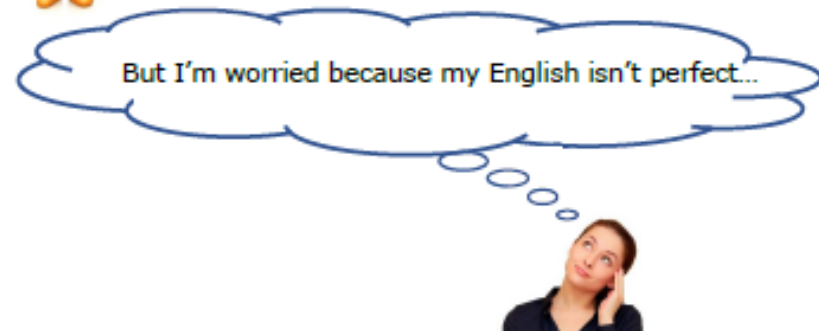Create and distribute flyers advertising your IET.

If possible, have them translated into several languages.

Simi Institute for Careers and Education

Integrated Education and Training (IET)
Machine Technology
Basic Machine Shop Class

Would you like to get a job
in the manufacturing industry?

Prepare for a career in this field
by taking our Basic Machine Shop class.

But I'm worried because my English isn't perfect...

Sign up for our IET class! You will be provided
English language and Basic Skills support to help you succeed.

IET class meetings are on **Thursdays**
from 6-9 PM in **Room 212.**
Machine technology lectures are on **Tuesdays in Room 606.**
New lecture series begins Jan. 22, 2019
Lecture times: Day begins at 11 AM / Evening begins at 6:30 PM
Financial assistance is available.
Please contact Machine Technology Instructor for details

We hope to see you there!

Generate student interest:

Create and distribute flyers advertising your IET.

If possible, have them translated into several languages.

Hello English Language Learners!

Would you like to get a good job
in the high-paying manufacturing industry?

This Photo by Unknown Author is licensed under CC BY-SA-NC

Learn machine technology job skills while learning English

Simi Institute for Careers and Education

is proud to offer

**Integrated Education and Training (IET)
Machine Technology
Basic Machine Shop Class**

Attend Machine Shop to learn career skills
Get ESL support on Thursday evenings to help you succeed

Financial assistance is available.
Please contact Machine Technology Instructor for details:
Email: oygar.lindskog@simivalleyusd.org
Phone: 805 – 579 – 6200 Ext. 1766
1880 Blackstock Avenue
Simi Valley, CA 93065

We hope to see you there!

Reach out

Get together with the counselors at your school

They need to know what you have to offer so that they can direct students to you

Inform yourself: CTE lectures

Before IET semester begins, attend CTE lectures to learn what students will
   be learning

Administration approved some curriculum development hours so CTE and
   IET instructors could collaborate on preparations for the pilot IET
   class

Preparing for the fall semester

Using the Basic Machine Shop course outline, wrote a course outline to be used for IET class

Ours is a general VESL course outline that could be used for future (non-Machine Tech) IET programs

Aligning curriculum

IET instructor created an IET syllabus for the IET class based on CTE syllabus.

CTE instructor gave feedback.

Schedule shows students which CTE units will be previewed, taught and reviewed each week.

The syllabus has a weekly calendar

Course Calendar (Class Meetings):

Tuesdays – Room 606 6 PM – 9 PM CTE day lecture begins at 11 AM CTE evening lecture begins at 6:30 PM	Thursdays – Room 212 6 PM – 9 PM
Aug. 21, 2018 **CTE – Unit 1**	Aug. 23, 2018 **IET – Introduction to course** **Review Unit 1** **Preview Coordinate Systems**
Aug. 28, 2018 **CTE – Coordinate Systems**	Aug. 30, 2018 **IET – Preview Blueprint Unit 2 and Unit 4**
Sept. 4 **CTE - Blueprint Unit2** **CTE – Blueprint Unit 4**	Sept. 6, 2018 **IET– Preview Pythagoras Theorem**
Sept. 11, 2018 **CTE – Pythagoras Theorem**	Sept. 13, 2018 **IET – Preview Blueprint Unit 3**

Performance-based assessments: IELCE Objectives

CASAS COAAP 36.5 – Job safety

- CTE students must demonstrate understanding of workplace safety before operating machinery.

CASAS COAAP 33.7 – Preparing for the job interview

- CTE students prepare for employment in the manufacturing industry by creating a resume and describing job skills

CASAS COAAP 74.1 – Machine Tech language Skills (new in 2019)

- Assesses skills students learn in Basic Machine Shop class

OUR CURRENT MACHINE TECH IET

Our Machine Tech CTE has three main components:

- Lectures
- Projects
- Assessments

IET: preview / CTE: learn / IET: review

Thursdays students attend IET class.

- preview vocabulary and concepts that CTE instructor will discuss in his next lecture

The following Tuesday is the CTE lecture

- CTE instructor's lecture includes Power Point we previewed last Thursday

The following Thursday

- review previous Tuesday's class, vocabulary quiz on previous week's terms

- preview next week's class – introduce new vocabulary & concepts

Sun.	Mon.	Tuesday	Wed.	Thursday	Fri.	Sat.

NO LAB	OPEN LAB	*CTE lecture / IET support*
		
		Students attend weekly CTE lecture
		
		Students work on Machine Shop projects & document their progress
		
		OPEN LAB when lecture is finished
			OPEN LAB	*IET class*
				Review
				   • *Past Tuesday's CTE lecture*
				   • *Vocab quiz on previous week's vocab*
				Preview of next CTE class:
				   • *Vocabulary & Concepts*
				Communication skills such as:
				   • *Pronunciation issues*
				   • *Asking for help & for tools*
				   • *Asking instructor to check*
				Grammar:
				   Contextualized grammar
				   Example:
				   • *Verb tenses*
				Preparing for oral presentation:
				   • *Develop written & oral skills*
				  OPEN LAB
					NO LAB	OPEN LAB

Projects

In addition to lectures, students in the Basic Machine Shop class are required to complete 8 projects
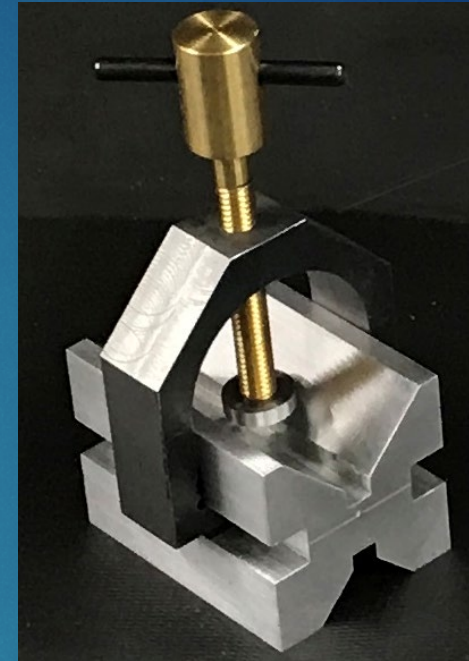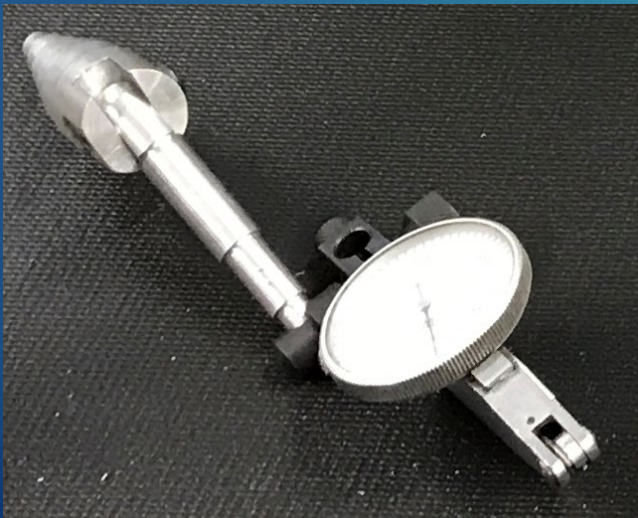
T Slot Cleaner

Bolt Gage

V Block

Indicator Holder

Tapping Center

Vise Stop

Hammer

Screwdriver

Projects

CTE instructor gives students instructions and a blueprint:

- Here is an example of <u>step-by-step instructions</u>

This is the first page of the instructions sheet:

V – BLOCK

NAME: _____   DATE: _____

SIGN	
1	DO UNIT 1 & 2 IN THE BLUEPRINT BOOK
2	DRAW THE BLOCK AND CLAMP
3	SAW MATERIAL. ONE PIECE 2 X 2" ALUMINUM 2 ¾" LONG AND ONE PIECE ¾" X 3" 1018 STEEL 2 ⅝" LONG
4	WATCH THE LATHE DVD
5	GET LATHE DEMO, AND FACE BLOCK TO 2.625" LONG
6	WATCH VERTICAL MILL DVD
7	DEMO ON VERTICAL MILL. GET THE RPM HANDOUT, MAKE THE RPM CALCULATIONS, & SQUARE CLAMP TO 2.500"
8	DEMO ON FLY-CUTTER, AND SQUARING THE BLOCK TO 1.875"
9	REVIEW LAYOUT TECHNIQUE
10	BLOCK AND CLAMP LAYOUT CHECK
11	EDGE FINDER DEMO
12	DRILL 1/8 HOLES AND CENTER DRILL THE CLAMP IN VERTICAL MILL
13	DEMO ON INDICATOR, INDICATE PART IN 4 JAW CHUCK
14	DRILL CLAMP IN SIZES: ½" DRILL, 11/16" DRILL AND 1" DRILL
15	CALCULATING RPM USING THE BORE RECORD SHEET FOUND IN THE BACK OF THIS PRINT PACKAGE
16	DEMO ON BORING IN A LATHE AND INTERNAL MEASURING
17	BORED TO FINAL SIZE CHECK
18	CUT 45° ANGLES ON CLAMP IN VERTICAL BAND SAW
19	SETUP AND MILL THE 45° ANGLES
20	CUT CLAMP OPEN IN VERTICAL BAND SAW
21	KEY CUTTER DEMO
22	READ MACHINING FUNDAMENTALS 6.10 -6.10.6
23	TAPPING DEMO
24	DO UNIT 14 IN THE BLUEPRINT BOOK

O. LINDSKOG, SIMI INSTITUTE FOR CAREERS AND EDUCATION

Projects

- Here is the blueprint students must follow.

FN1

5/16-18 UNC 2B

.75

2.50

45.00°

2.50

1.643

R.940

1.125

R.063 Typ.

.313

.687 Typ
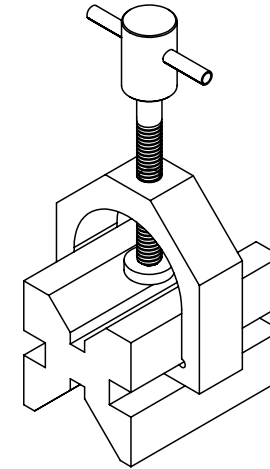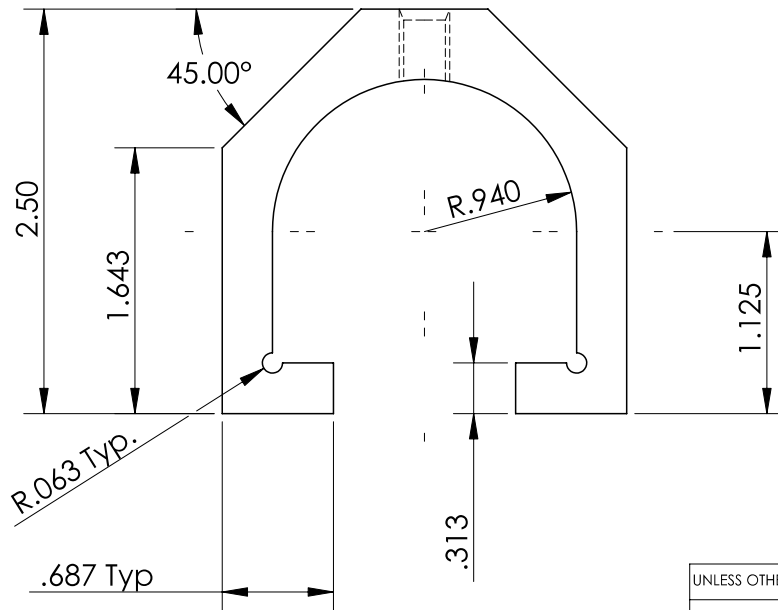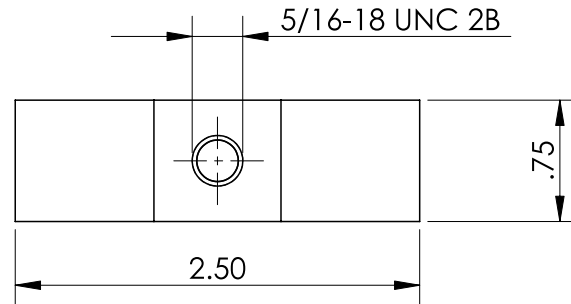
5	1	Roll pin	Purch.
4	1	Pad	1018 hr
3	1	Screw	Brass
2	1	V-Block	6061 Alu.
1	1	Clamp	1018 hr
FN #	QTY.	DESCRIPTION	MATERIAL

PARTS LIST

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:

FRACTIONAL ± 1/32
ANGULAR: ± 1°
XX = ± .03"
XXX = ± .010"

FINISH

COMMENTS:

	NAME	DATE
DRAWN	O. Lindskog	12.20.09
CHECKED		
APPR.		

Simi Institute
Machine Technology

TITLE:

V-block

SIZE	DWG. NO.	REV
A	**B-1209-002**	**D**

SCALE: 1:1   SHEET 1 OF 2

DO NOT SCALE DRAWING

5   4   3   2   1

Projects

The CTE instructions can be overwhelming for ELLs.

◆ Students benefit from having instructions broken down and simplified into understandable units. <u>Here is an example.</u>

V-Block - Information for IET Students

What is a V-Block?

A V-block is a square or rectangular steel block with a 90° V-groove through the center, provided with a clamp for holding round stock for drilling, milling, and laying out operations.
(Look at the picture below to see how a V-block is used)

Click the link to see how a V-block is used: *https://youtu.be/CGiR3D05-gI*

Your V-block will look different than the ones shown above.
Here is a picture of the V-block you will be making:

Parts of the V-block:

- *Roll pin*
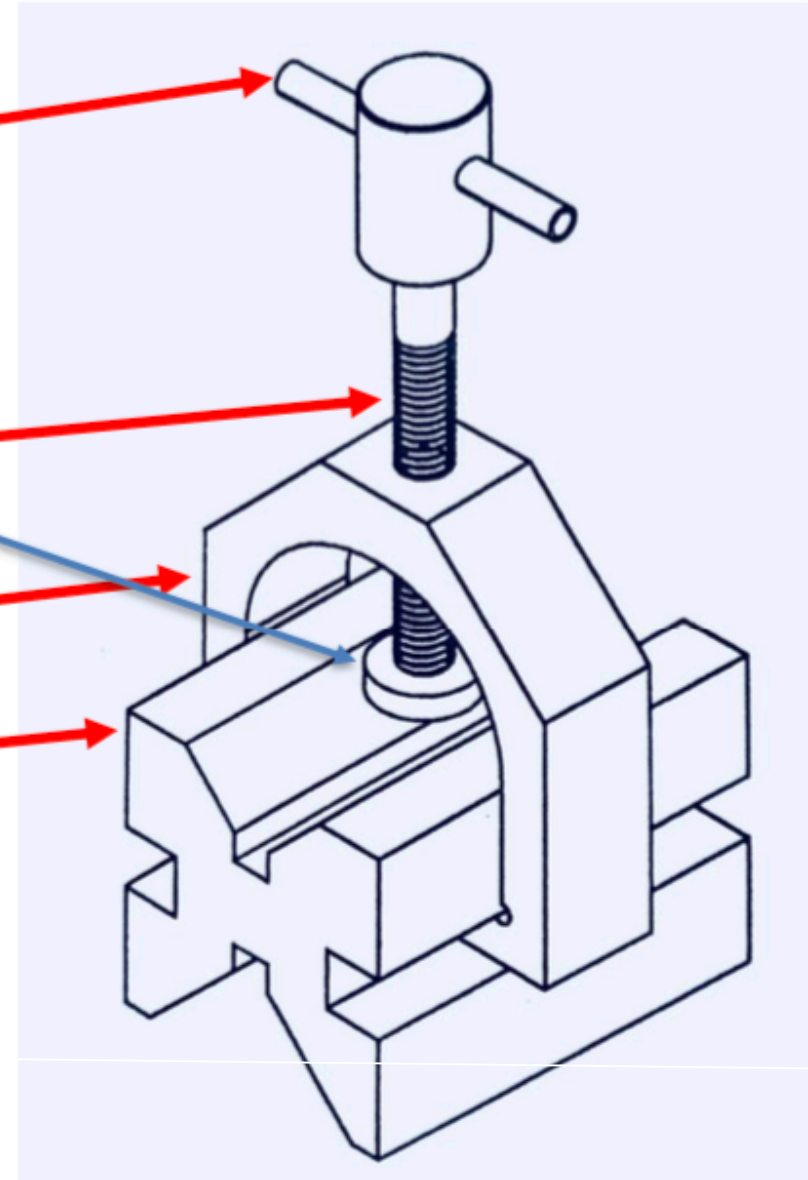- *Pad*
- *Screw*
- *Clamp*
- *V-block*

1	**Do Unit 1 in the Blueprint book - Drawings and Prints** **Do Unit 2 in the Blueprint book - Visualizing Shapes**	textbook
2	Draw the block and clamp.	Graph paper, ruler, pencil
3	Saw material. One piece 2" x 2" Aluminum 2 ¾" long. And One piece ¾" x 3" 1018 Steel 2 ⅝" long	Material: aluminum & 1018 steel Machine needed: saw
4	Watch the lathe DVD	VIDEO
5	Get lathe demo And Face Block to 2.625" long	⬅️ **V-BLOCK** DEMO Machine needed: lathe *step 5 - "Click here to see a quick video on face milling:* *https://youtu.be/9OsNUi_o6C4*

Related ESL / IET Curriculum

Projects: Oral Presentation

At the end of the semester, IET students are required to give an oral presentation on one of the projects they completed in the CTE class.

This is a multi-step process.

◆ Here's the template students are given to help them prepare.

IET - Basic Machine Technology

Project - Google Slide Presentation

For the career tech class, you will learn ***technical skills*** in the machine shop.

You will work on projects in the machine shop to build your technical skills.

In order to practice your ***English skills***, you will describe how you completed one project.

You will practice your ***English writing skills*** by describing at least five steps in the process.

You will take pictures and/or videos to show what you did.

You will create a Google Slide presentation and insert these pictures and/or videos.

Then you will practice your ***speaking skills***.

Eventually you will give an oral presentation.

Being able to describe what you did will help you in the future when you go for a job

interview.

You will be able to tell the employer all the skills you have.

Being able to communicate is very important to your success.

As you complete the projects in the machine shop, document several steps by taking pictures and/or videos.

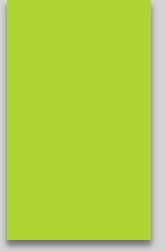|	
Step 1: (write a brief title, then describe what you did first)	Step 1 (picture)
Step 2: (write a brief title, then describe what you did next)	Step 2 (picture)
Step 3: (write a brief title, then describe what you did next)	Step 3 (picture)
Step 4: (write a brief title, then describe what you did next)	Step 4 (picture)
Step 5: (write a brief title, then describe what you did last)	Step 5 (picture)

Projects: Oral Presentation

- Here is an example of an [oral presentation](#)

SUCCESSES and CHALLENGES

Challenges

<u>Time required to complete course requirements</u>:

It takes time to learn all the technical material required to earn certificates.

Students who have full time jobs might have difficulty making time in their busy schedules.

<u>Scheduling conflicts</u>:

Some students may choose to attend ESL classes in addition to IET/CTE class.

This puts further demands on their time.

Although we have been flexible with the time requirements, some students still see this as a barrier to participating.

Successes: Our first graduate

Successes:

Assessments:

Students are taking and passing IET – related assessments (243 COAAPs)

Persistence

Several students have completed Basic Machine Shop CTE certificate and are currently working on the second certificate CNC class

Consider attending your program's Advisory Board Meetings

Machine Tech's advisory board meets about 4 times a year

Business owners and support services from our local area attend

You'll get a first-hand glimpse into what companies are looking for in the employees they hire

Opportunities to network with others who can help build your program

As you plan, consider these things:

Surveying of students as to their level of interest in various CTE programs

Recruiting students / Communicating with school counseling staff

Course outline / Syllabus

Collaboration time

Data management

Funding

ESL teacher's level of familiarity with curriculum

Sigrun Utash
Simi Institute for Careers and Education

sigrun.utash@simivalleyusd.org