

# Ensuring Student Success

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# Defining Success

Dictionary definition of Success :

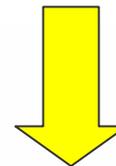
“Achieving the Expected Outcome”

Instructor’s definition:

“Can the student use the software in a productive manner?”

Yes / No

# Defining Success

[Advanced Scholar Search](#)[Scholar Preferences](#)[Scholar Help](#)

**Scholar**

Results **1 - 10** of about **8,980** for [CAD student success](#).

## [Student Success: What Factors Influence Persistence? - group of 2 »](#)

MA Reyes, MR Anderson-Rowland, MA McCartney - FRONTIERS IN EDUCATION CONFERENCE, 1999 - fie.engrng.pitt.edu

... underrepresented ethnic minority students for **success** as an ... analysis; flow charting; sketching **CAD**; and teaming. ... The **student** teachers receive coaching on the ...

[Cited by 5](#) - [View as HTML](#) - [Web Search](#) - [BL Direct](#)

## [Supporting Programming and Learning-to-Program with an Integrated \*\*CAD\*\* and Scaffolding Workbench\\* - group of 3 »](#)

M Guzdial, L Hohmann, M Konneman, C Walton, E ... - Interactive Learning Environments, 1998 - Taylor & Francis

... Our approach is driven more by **student** needs, though ... KIE does not seek to provide **CAD** tools such ... which can help to improve students' motivation and **success**. ...

[Cited by 5](#) - [Web Search](#)

## [Redesigning Engineering Graphics to Include \*\*CAD\*\* and Sketching Exercises - group of 3 »](#)

R Jerz - 2002 ASEE Annual Conference & Exposition: Vive L'ingenieur!, 2002 - sau.edu

... to be naturally divided into components – interpreting engineering drawings and **CAD**. ... Using multimedia support should increase **student success**, and it should ...

[Cited by 3](#) - [View as HTML](#) - [Web Search](#)

## [Resource Allocation Practices and \*\*Student\*\* Achievement: An Examination of District Expenditures by ...](#)

**CAD Center** - [sedl.org](#)

... The Effect of School Resources on **Student** Achievement and Adult **Success** (Washington, DC: Brookings Institution Press, 1996; Allan Odden and Sarah Archibald ...

[Cited by 2](#) - [View as HTML](#) - [Web Search](#)

# Steps to Achieving Success

Identify the obstacles:

-You

Your knowledge, background, communication skills and motivation

# Steps to Achieving Success

Identify the obstacles:

- Management

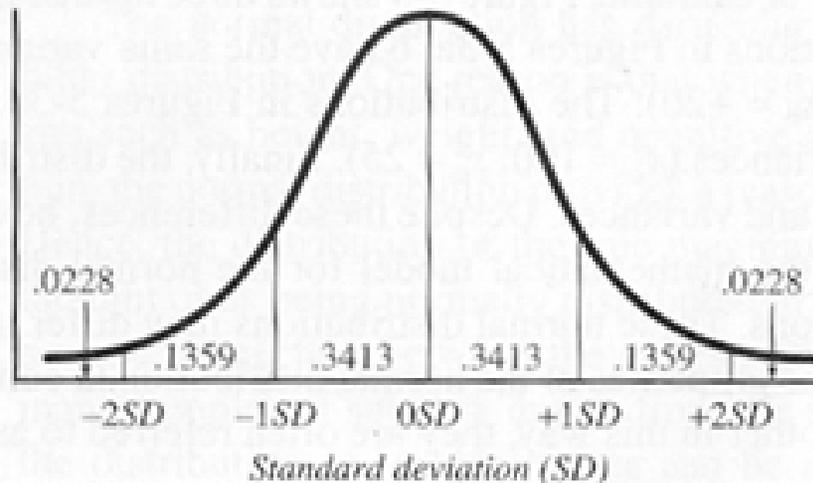
Often do not understand the complexity of training a specialized software

# Steps to Achieving Success

Identify the obstacles:

-Administration

Budget, Facilities, Syllabus and Grades



# Steps to Achieving Success

Identify the obstacles:

-Students

Academic and personal background

Motivation / Desire

Academic versus Professional

# Success Strategies

## Toolbox Analogy



# Success Strategies

Know the subject ! ! !

Understand Industry expectations

Accept that the classroom is not the  
'Real World'

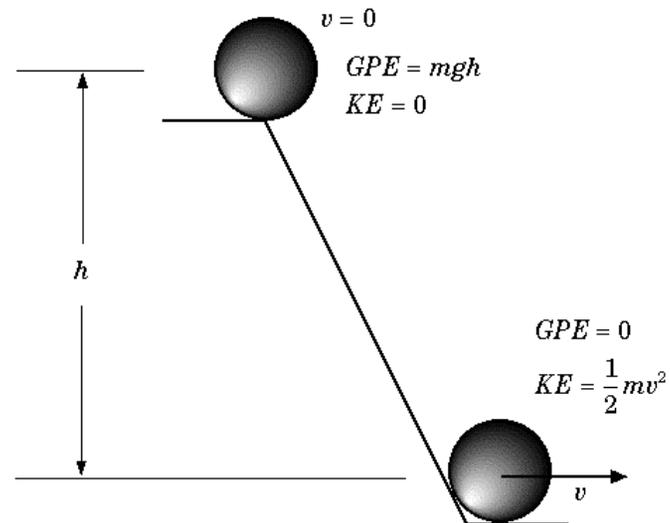
Use guest speakers from Industry

# Success Strategies

## Engage the student

$$\begin{aligned} \text{Gravitational potential energy (GPE)} &= \text{mass} \times g \times \text{height} \\ &= mgh \end{aligned}$$

$$\begin{aligned} \text{Kinetic energy (KE)} &= \frac{1}{2} \times \text{mass} \times (\text{velocity})^2 \\ &= \frac{1}{2}mv^2 \end{aligned}$$



$GPE \Rightarrow KE$  (assuming no losses)

**CONSERVATION OF ENERGY (*vis viva*)**

*Christiaan Huygens (1629-1695)*

*Gottfried Leibnitz (1646-1716)*

# Success Strategies

## Engage the student



Truck = 65,000 lbs.

Speed = 50 mph

Kinetic Energy = 5.5  
MILLION ft. lbs.

# Summary

Define 'Success'

Understand the obstacles to success

Know the subject

Engage the student

Questions?