

SolidWorks Certifications

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Mechanical and Mechatronics Engineering

Overview

- This presentation will outline the necessary steps to take if you are interested in pursuing the various SolidWorks Certifications offered via the University of Waterloo
- Please review this entire presentation before requesting an exam opportunity

SolidWorks Certification

- The University of Waterloo offers various exams from the SolidWorks Certification program, with the main two being:
 - Certified SolidWorks Associate (CSWA)
 - Certified SolidWorks Professional (CSWP)
- These are designations that demonstrate a user's proficiency of mechanical design using SolidWorks
- Normally, you would have to pay for these exams, but as UW students, we can offer you a voucher for a free attempt at the certification

Limited Opportunities

- The university has a limited number of exam opportunities to give out each year
- To be fair to all students, you may request an exam opportunity for each type of exam (i.e. CSWA, CSWP, etc.) only **once**
 - You must complete the CSWA before you can attempt the CSWP
- Should you fail the exam and wish to retake it, you will have to purchase the exam from SolidWorks for your next attempt

Computer Requirements

Before taking the CSWA/CSWP exam, make sure you have the following:

- A computer with SolidWorks installed (current release or one release behind)
- A computer with Microsoft Excel* installed
- A stable internet connection
- Tangix TesterPRO client (explained on the next slide)
- A valid @uwaterloo.ca email address
- A voucher code for the exam you are taking (CSWA or CSWP)

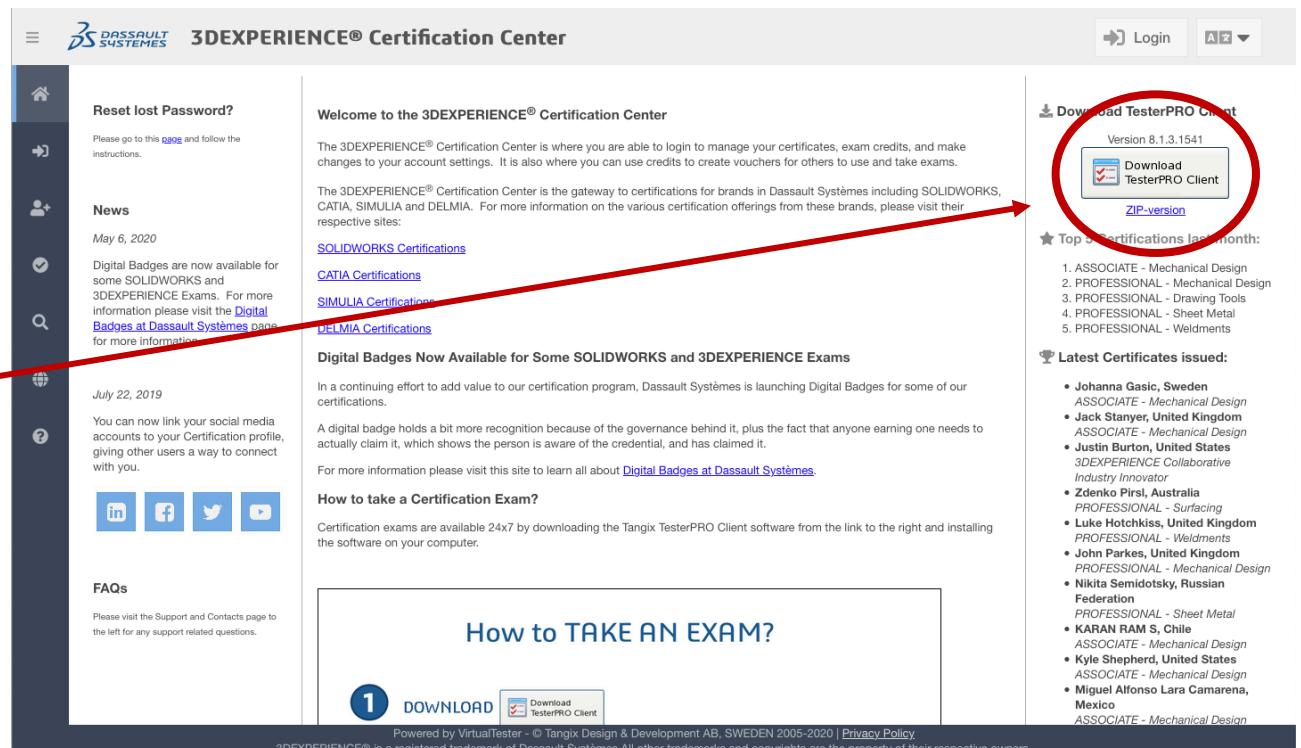
* Microsoft Excel is required as there may be a portion of some exams that utilizes design tables

Accessing the Exam

Tangix TesterPRO

To take the certification exam, you need to download and install the Tangix TesterPRO Client, which is the program you will use to access the exam. To download it, visit the address below:

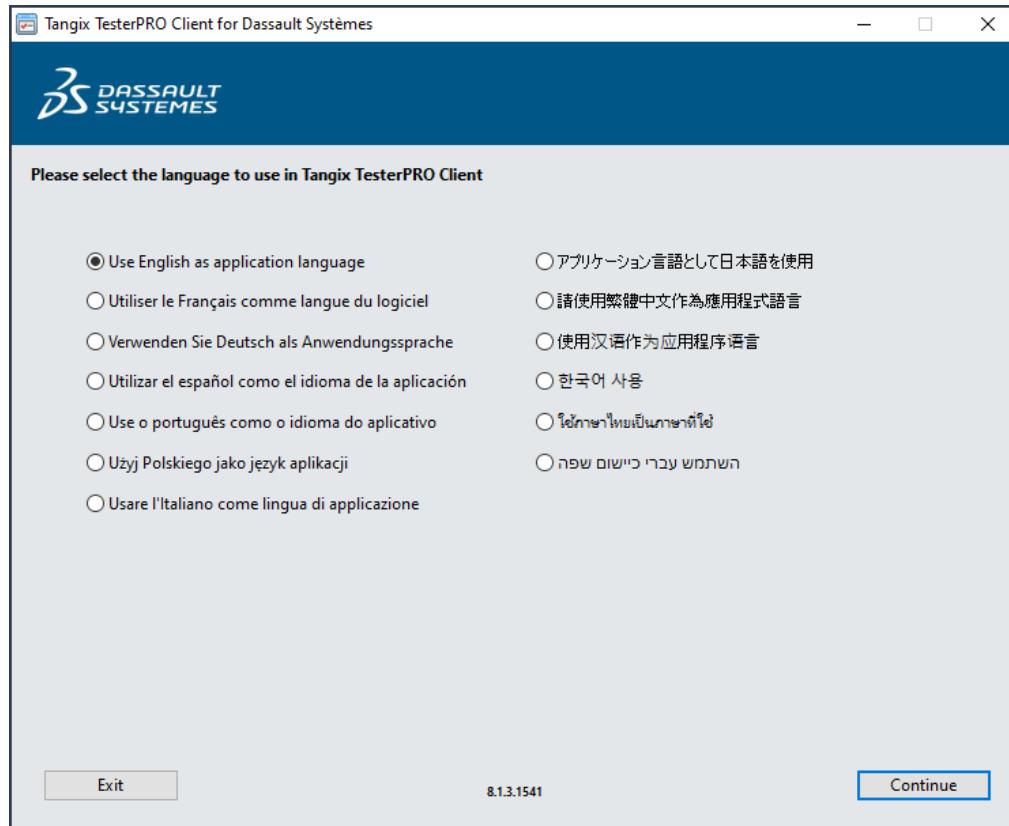
<https://3dexperience.virtualtester.com>



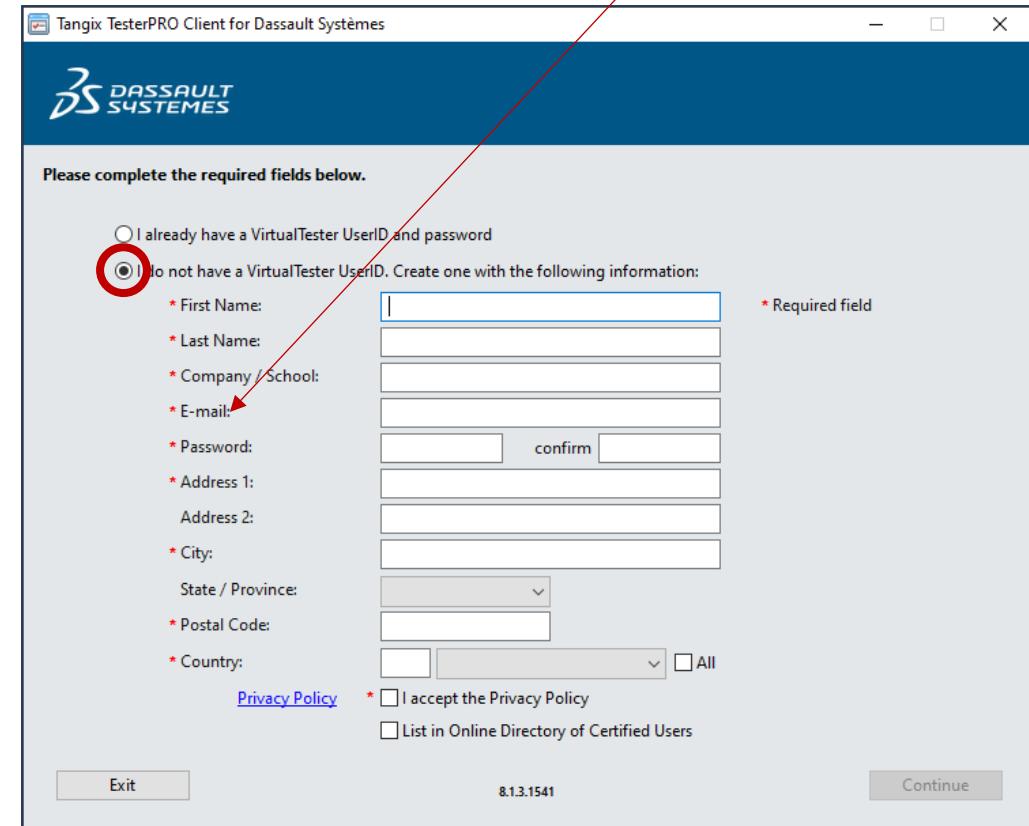
The screenshot shows the 3DEXPERIENCE Certification Center homepage. The left sidebar includes links for 'Reset lost Password?', 'News' (May 6, 2020), 'FAQs', and social media icons for LinkedIn, Facebook, Twitter, and YouTube. The main content area features a 'Welcome to the 3DEXPERIENCE® Certification Center' message, links to 'SOLIDWORKS Certifications', 'CATIA Certifications', 'SIMULIA Certifications', and 'DELMIA Certifications'. It also highlights 'Digital Badges Now Available for Some SOLIDWORKS and 3DEXPERIENCE Exams'. A large callout box on the right is titled 'How to TAKE AN EXAM?' and contains a '1 DOWNLOAD' button with a 'Download TesterPRO Client' link. The right sidebar displays a 'Download TesterPRO Client' section with a 'ZIP-version' link, a 'Top 5 Certifications last month' list, and a 'Latest Certificates issued' list.

Accessing the Exam

Use your UW email!

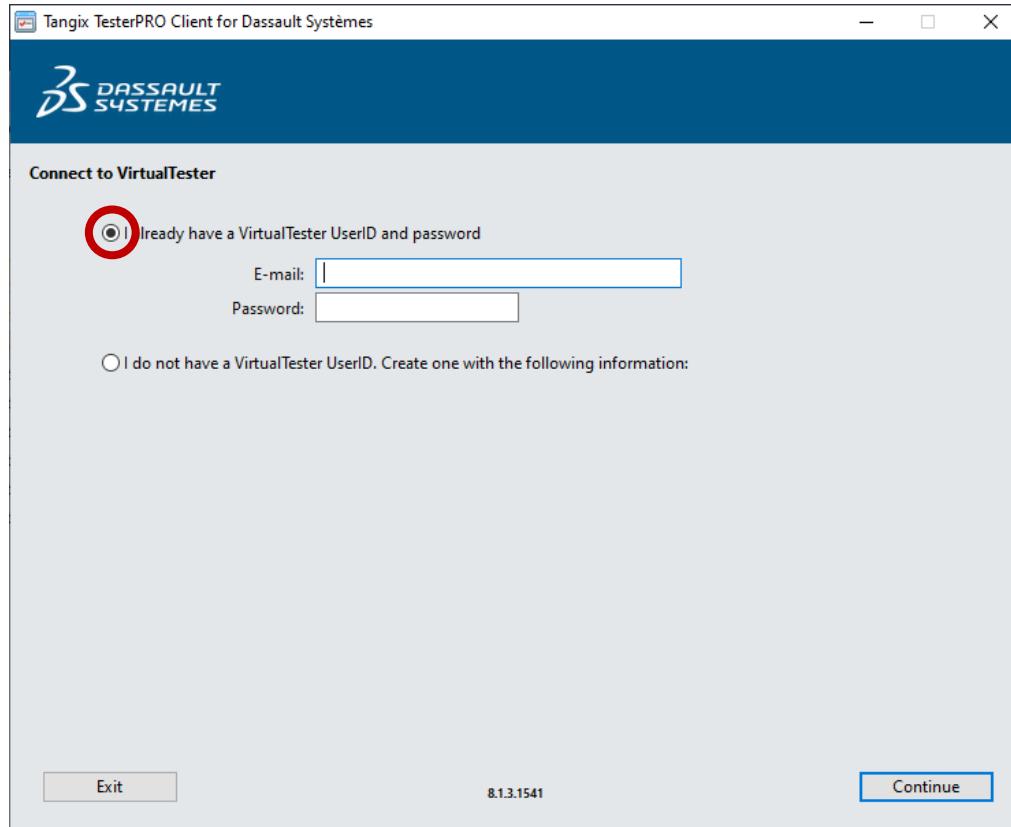


Open Tangix TesterPRO and select your preferred language

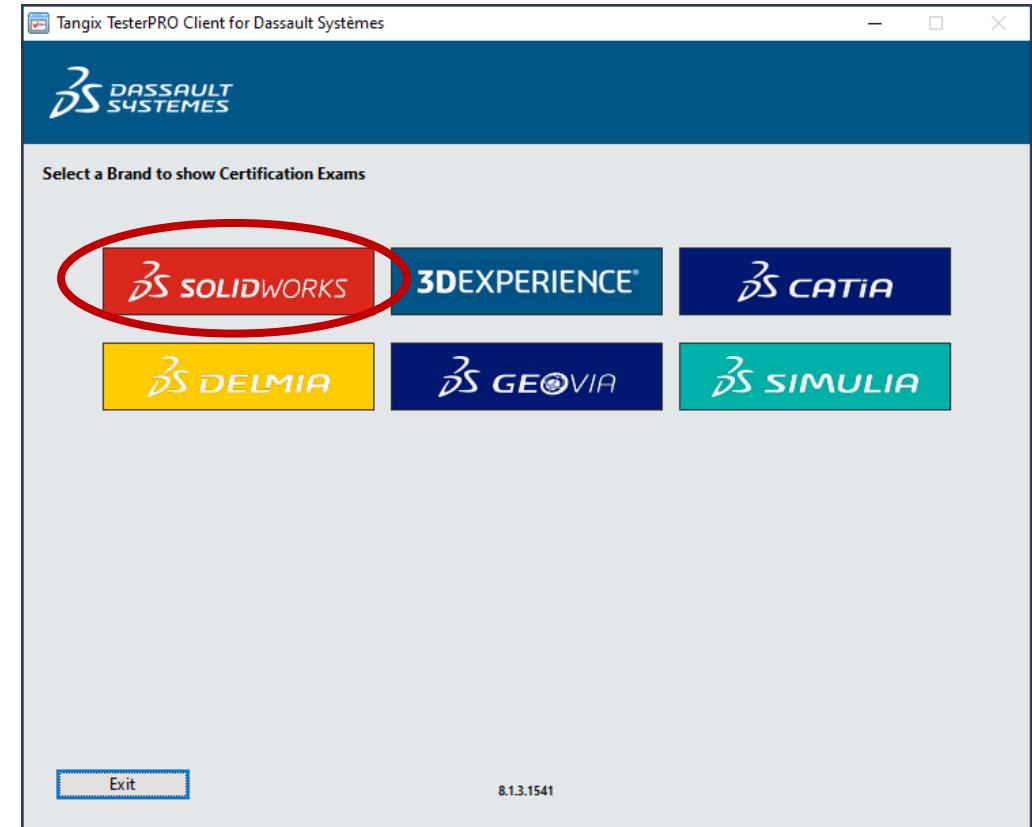


You will be prompted to create a VirtualTester UserID. If you already have an account, continue to the next step. Otherwise, fill out the form to continue

Accessing the Exam

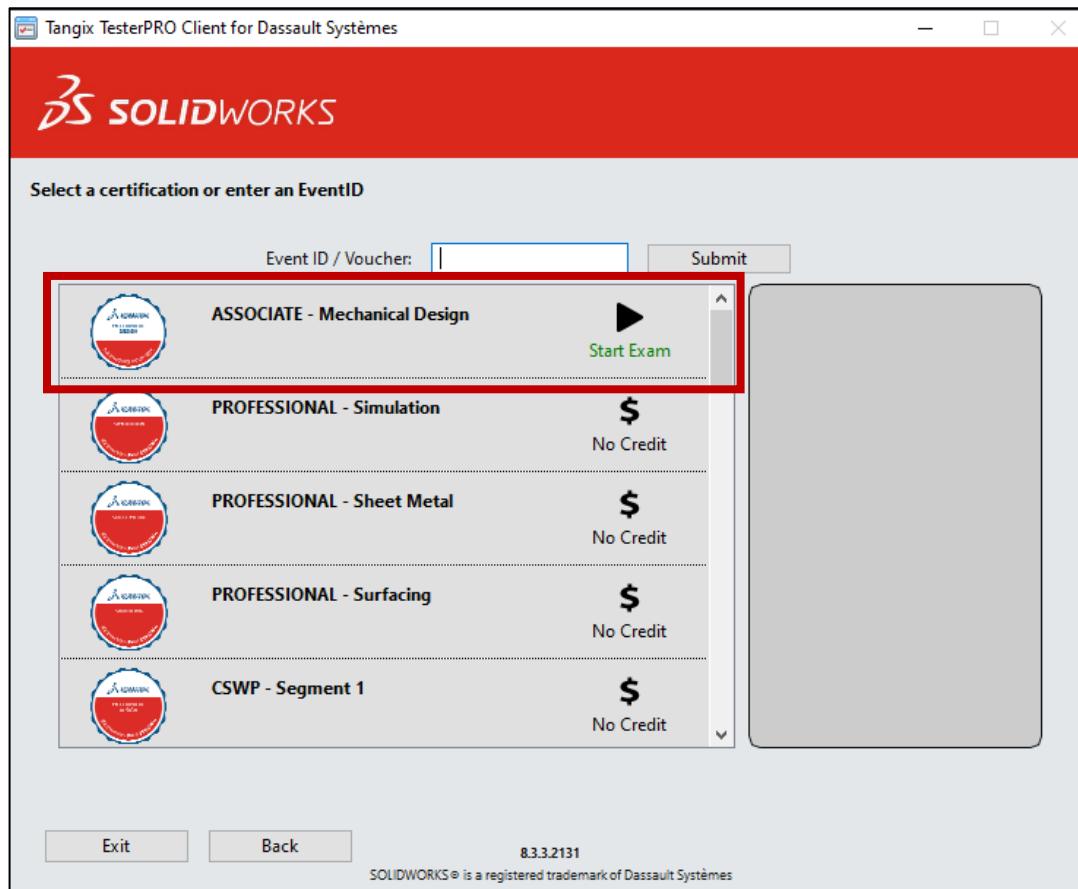


If you already have an account enter your VirtualTester UserID credentials

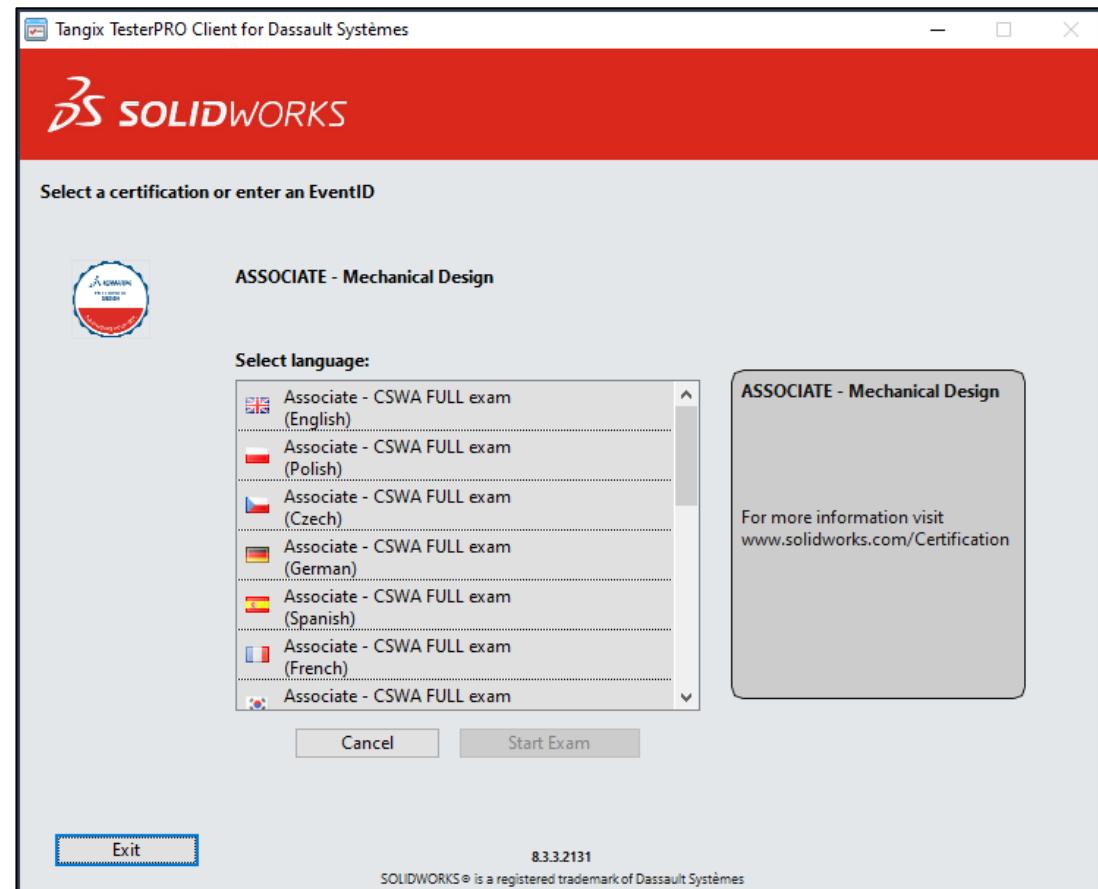


Select SolidWorks from the software options

Accessing the Exam

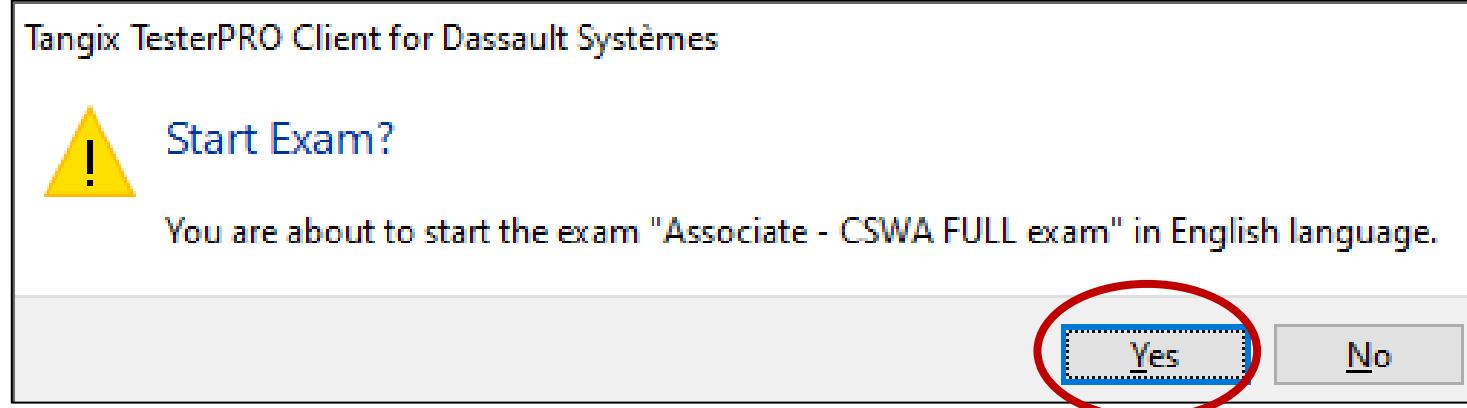


Once the exam opportunity has been created for you it will appear in your list of exams. Select "Start Exam"



Choose your preferred language and click "Start Exam"

Accessing the Exam



After indicating your preferred language, a pop-up window will appear. Click "Yes" to start the exam

A Note About the Exams

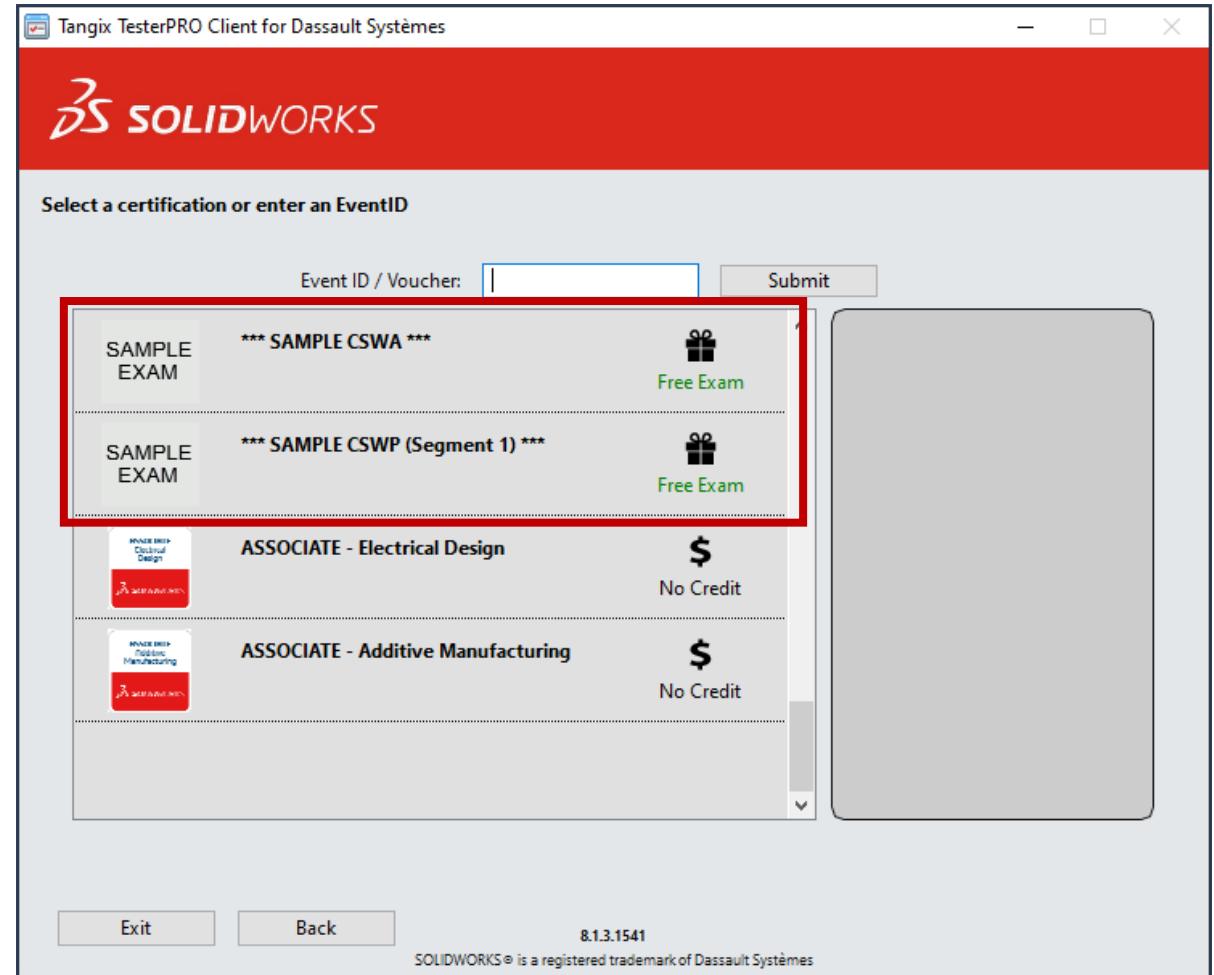
- Once the voucher for the exam has been created, you will have one month from the day that it is issued to complete the exam
- These exams are not proctored, so you can work on them at any time
- However, you **must** allocate a time where you can focus on the exam, as it must be completed entirely within one sitting
- You are given 180 minutes to complete the CSWA, and 200 minutes for the CSWP

Before Receiving the Voucher

Given the limited opportunities available, we require all students to complete **AND PASS** a sample exam for the certification in question before we provide a voucher

This sample exam will help you prepare for the actual certification exam, ensure that your computer can handle the actual exam, and it gives you an idea of what to expect

If you fail the sample exam, there will be 30-day waiting period before you can attempt it again



Completing the Exam

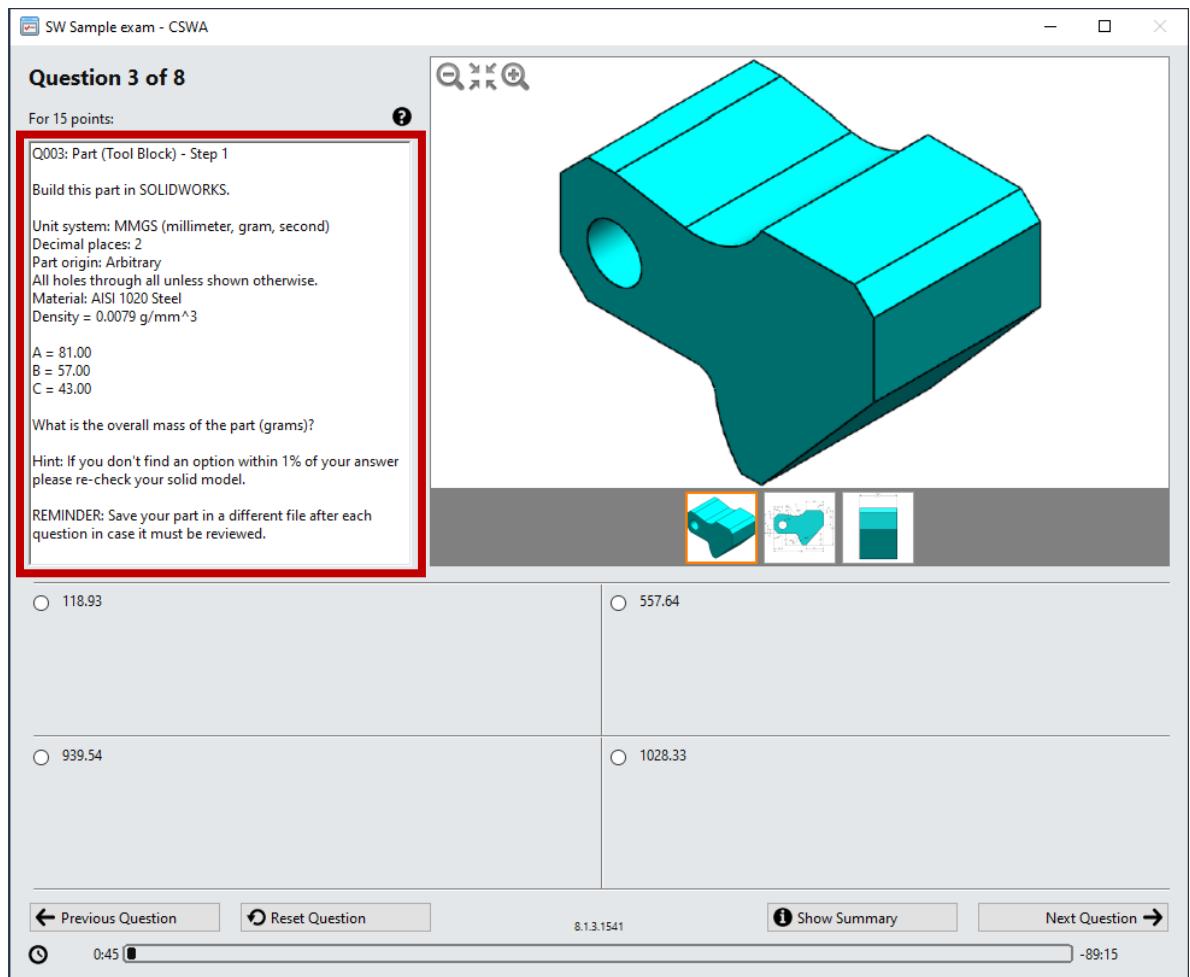
CSWA Exam

The CSWA exam is comprised of three sections:

- Drawing view knowledge
- Part modelling
- Bottom-up assembly (using pre-built parts)

For all questions there are instructions in the dialogue box on the left. Read and understand the question before submitting your answer. Some questions will be multiple-choice, and others will ask the user to enter a value.

You have 180 minutes to complete the exam. To pass the exam, you must receive a minimum score of 70%.



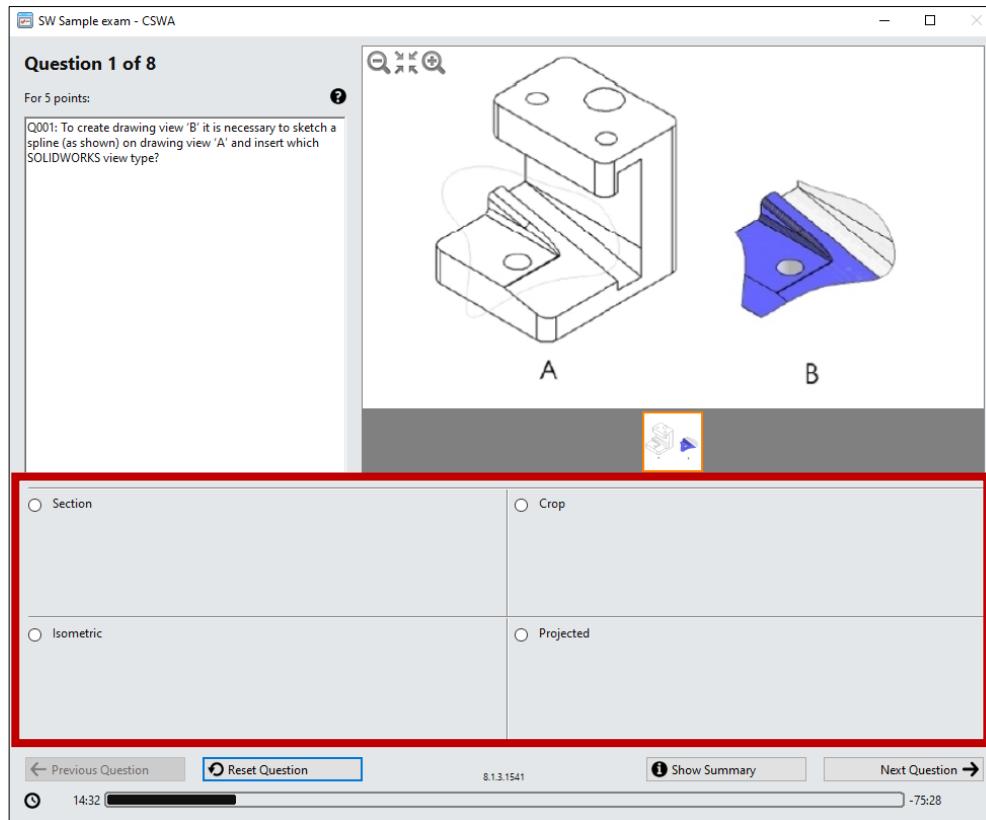
CSWA Exam

SW Sample exam - CSWA

Question 1 of 8

For 5 points:

Q001: To create drawing view 'B' it is necessary to sketch a spline (as shown) on drawing view 'A' and insert which SOLIDWORKS view type?



Section

Crop

Isometric

Projected

← Previous Question Reset Question Show Summary Next Question →

8.1.3.1541 14:32 -75:28

Example of a multiple-choice question

SW Sample exam - CSWA

Question 4 of 8

For 15 points:

Q004: Part (Tool Block) - Step 2
Modify the part in SOLIDWORKS.

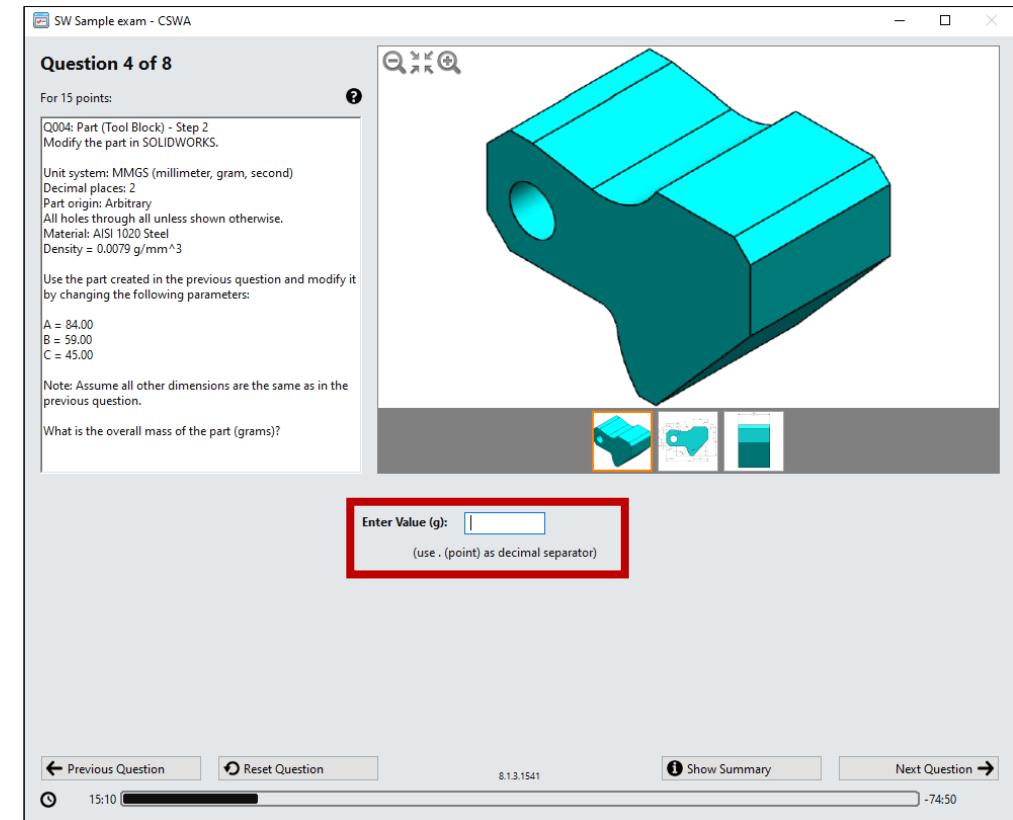
Unit system: MMGS (millimeter, gram, second)
Decimal places: 2
Part origin: Arbitrary
All holes: through all unless shown otherwise.
Material: AISI 1020 Steel
Density = 0.0079 g/mm³

Use the part created in the previous question and modify it by changing the following parameters:

A = 84.00
B = 59.00
C = 45.00

Note: Assume all other dimensions are the same as in the previous question.

What is the overall mass of the part (grams)?



Enter Value (g):

(use . (point) as decimal separator)

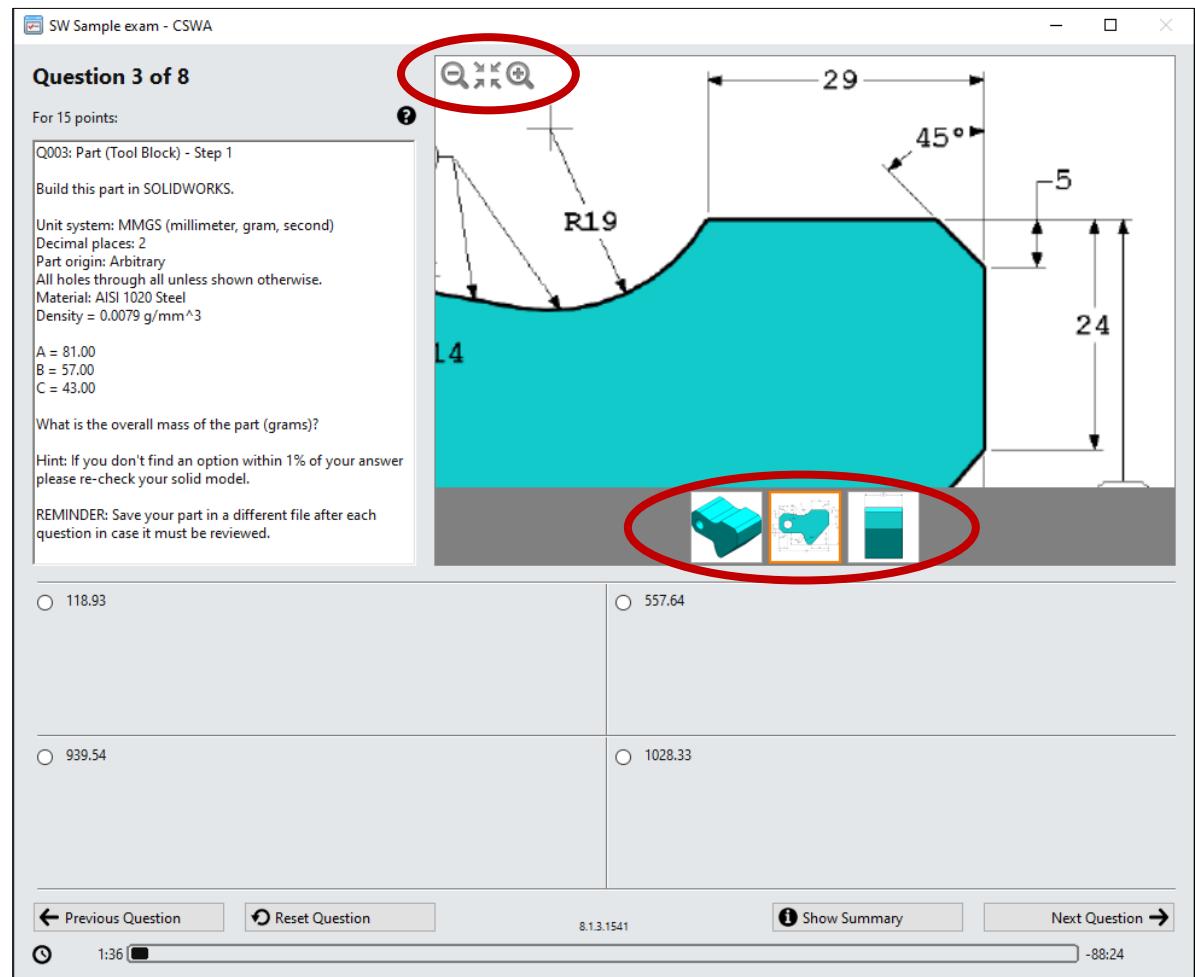
← Previous Question Reset Question Show Summary Next Question →

8.1.3.1541 15:10 -74:50

Example of a user input question

CSWA Exam – Part Modelling

In the part modeling questions, there are multiple views of the part that you can access, and you are able to zoom in and out of the views as well.



CSWA Exam – Assembly

In the assembly section of the exam, you will be asked to create an assembly using provided parts. You will need to download the .zip file and extract the part files.

SW Sample exam - CSWA

Question 7 of 8

For 30 points:

Q007: Build this assembly in SOLIDWORKS (Chain Link Assembly)

- Download the attached zip file and open it.
- Save the contained parts and open those parts in SOLIDWORKS. (Note: If SOLIDWORKS prompts "Do you want to proceed with feature recognition?" please click "No".)
- **IMPORTANT:** Create the Assembly with respect to the Origin as shown in isometric view. (This is important for calculating the proper Center of Mass)
- Create the assembly using the following conditions:
1. Pins are mated concentric to chain link holes (no clearance).
2. Pin end faces are coincident to chain link side faces.
Unit system: MMGS (millimeter, gram, second)
Decimal places: 2

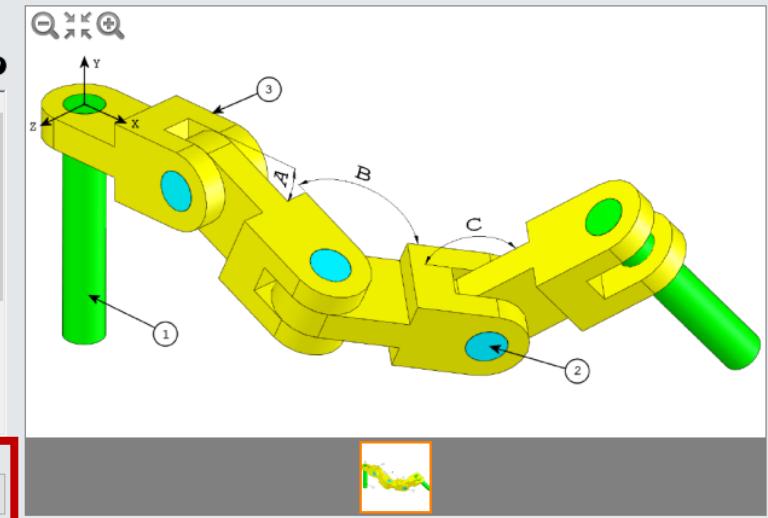
Attachment to this question

 **ChainLinkAssembly.zip (87.3 kB)**

X = 308.53, Y = -109.89, Z = -61.40 X = 298.66, Y = -17.48, Z = -89.22

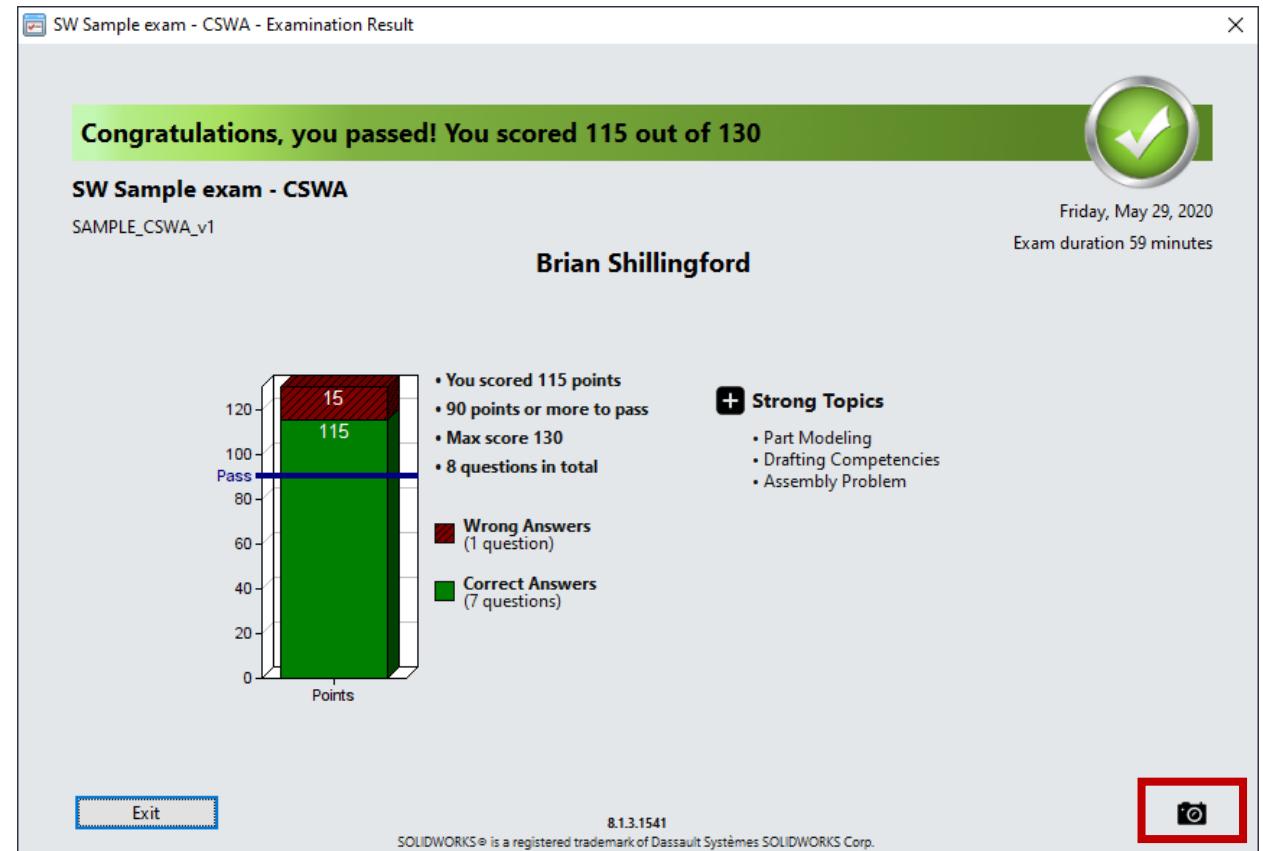
X = 348.66, Y = -88.48, Z = -91.40 X = 448.66, Y = -208.48, Z = -34.64

Previous Question **Reset Question** 8.1.3.1541 **Show Summary** **Next Question**  2:12 - 87:48



CSWA Exam

- After completing the exam, your results will be displayed immediately and indicate if you have passed the exam or not.
- If you have completed the official exam, in the bottom right corner next to the camera icon there will be an option to download your certificate.*
- For the **sample exam**, this is the screenshot you need to submit as proof of completion in order to receive the voucher



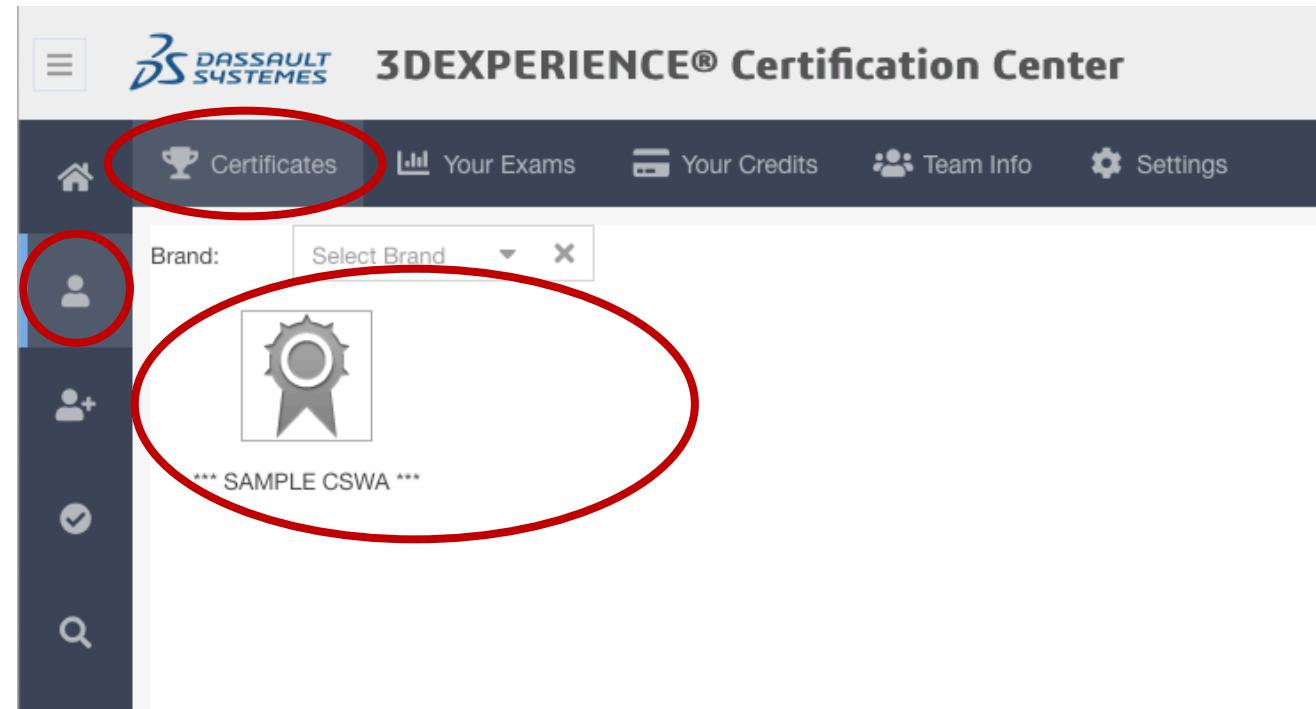
*Note this is a screen shot from the sample exam so there is no option to download the certificate

CSWP Exam

- The CSWP exam is similar to, but more advanced than the CSWA
- The CSWA is an entry-level certification, while the CSWP focuses on complex parts, configurations and advanced assembly techniques
- The CSWP is broken into 3 segments, each covering different areas of knowledge within SolidWorks

Accessing Certificates

- You can access your certificates online by logging into your account using your VirtualTester UserID credentials
 - <https://3dexperience.virtualtester.com>
- Select the Certificates tab under My Account to access your certificates. They will be available for PDF download



LinkedIn

- Upon successfully completing the CSWA or CSWP exam, you can link your certificate to your LinkedIn profile.
- If you don't already have any licenses or certificates on your profile add "Licenses & Certificates" from the "Add profile section" drop down menu.
- Fill out the form with the correct credentials and be sure to use your unique certificate number.
- Credential URL:
<https://cv.virtualtester.com/qr/?b=SLDWRKS&i=C-XXXXXXXXXX>

Edit licenses & certifications X

Name *
Certified SolidWorks Associate - Mechanical Design

Issuing Organization *
Dassault Systèmes

This credential does not expire

Issue Date No Expiration Date
July -
2020 -

Credential ID
C-XXXXXXXXXX Unique certificate number

Credential URL
<https://cv.virtualtester.com/qr/?b=SLDWRKS&i=C-XXXXXXXXXX>

We no longer share changes to licenses & certifications with your network. [Learn how these are shared and when](#)

Delete Save

Requesting an Exam Opportunity

Requesting an Exam Opportunity

To request a voucher for an exam opportunity, email Abdullah Barakat (ambarakat@uwaterloo.ca) with the screenshot of your passing grade on the sample exam, along with the following information:

- Given name(s):
- Last name(s):
- UW Email:
- Username (i.e. your email without “@uwaterloo.ca”):
- Program (ME/MTE):
- Term (1B, 3A, etc.):
- Exam (CSWA/CSWP):

Other SolidWorks Certifications

Aside from the CSWA/CSWP, UW offers the following SolidWorks Certifications:

- CSWPA-SM - SolidWorks Sheet Metal Professional
- CSWPA-DT - SolidWorks Drawing Tools Professional
- CSWPA-MM - SolidWorks Mold Making Professional
- CSWPA-WD - SolidWorks Weldments Professional
- CSWPA-SU - SolidWorks Surfacing Professional
- CSWA-AM - SolidWorks Additive Manufacturing Associate
- CSWP-S - SolidWorks Simulations Professional
- CSWA-SD - SolidWorks Sustainability Associate
- CSWP-CAM - SolidWorks CAM Professional
- CSWP-MBD - SolidWorks MBD Professional
- CSWA-E - SolidWorks Electrical Associate
- CSWA-S - SolidWorks Simulations Associate

Closing Remarks

- In summary, to get access to the voucher for the certification exams, you must:
 - Download Tangix TesterPro Client
 - Complete and Pass the sample exam for your desired certification
 - Email Abdullah Barakat proof of completion and the required information in this presentation
- If you have any questions about the certification process or how to prepare for the exams, please contact Abdullah Barakat at ambarakat@uwaterloo.ca
- Good Luck!