

Instructions for Written Assignment – Case Study

Case Study Assessment Due Date: Tuesday 10th October @ 11.00pm Adelaide time.

Word Count: 2500 words

Worth 35% of total mark for course

Assignment Introduction:

Sonographer accreditation is a mandatory requirement for both practicing sonographers and student sonographers engaged in healthcare practices that offer Medicare-eligible sonographic services. The accreditation process for sonographers is overseen by the Australasian Sonographer Accreditation Registry (ASAR). Upon successful completion of an accredited postgraduate sonography course, which includes meeting the minimum clinical training requirements, entry-level sonographers become eligible for inclusion in the Registry of Accredited Medical Sonographers. The "Standards for the Accreditation of Sonographer Courses" document, issued by ASAR, outlines the educational and clinical training standards necessary to practice as an accredited medical sonographer. These standards ensure the quality and competence of professionals in this field.

Additionally, a profession-wide collaborative research project, funded by the Australian Sonographers Accreditation Registry, was conducted between 2019 and 2020. This project aimed to develop a comprehensive competency framework for medical sonography, setting the expectations for professional competence across various levels of sonographic practice. The resulting multi-dimensional competency framework defines the required skills, knowledge, and attitudes from beginner to expert levels. The framework includes threshold criteria that serve as benchmarks for assessing competency attainment. Competencies play a crucial role in establishing consistent standards and serve as observable indicators for evaluating professional performance. They form the foundation for registration and credentialing processes in the healthcare profession.

The ASAR now incorporates this newly developed competency framework when accrediting university courses. It outlines the expectations for entry-level sonographers, which students need to meet upon graduating from their program to become competent entry-level sonographers. As per the ASAR guidelines set out in these documents, students must demonstrate competency in performing shoulder ultrasound examinations to fulfil the graduation requirements related to musculoskeletal sonography. This assignment serves as an opportunity for students to enhance their clinical skills in the area they will need to demonstrate scanning competency in before graduating while integrating the knowledge they develop through completing the course modules. The assignment also helps to enable work integrated learning between theory and clinical settings and is something that is essential for students to become proficient in sonographic scanning techniques, making this assignment instrumental in their skill development.

In this assignment, students are tasked with performing a routine shoulder ultrasound on a normal volunteer, ensuring adherence to the scanning protocol provided by their workplace, or utilizing the recommended protocol resources mentioned above. It is crucial for students to practice and become comfortable with different scanning planes, accurately locating the included anatomy, and optimizing image quality by adjusting depth, gain, focus, and minimizing artifacts. By conducting thorough research using scholarly resources such as textbooks and journal articles, students can investigate, organize, and integrate the information necessary to complete the assignment successfully.

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Before you begin your assessment, please ensure that you read and consider the following information:

1. Academic Integrity:

It is essential to review your responsibilities relating to academic integrity. Please visit the following link to understand the guidelines: <https://lo.unisa.edu.au/mod/book/view.php?id=252142>. Note that the marking rubric also emphasizes academic integrity.

2. Referencing:

You must use APA Referencing Style for your assignment. Make sure to include 7-10 scholarly references that are less than 10 years old. It is important to verify that your references have been presented correctly before submission, especially if using an automatic reference process such as EndNote. Non-compliance with APA Referencing Style will result in an automatic fail. Refer to the following link for the referencing guide:

<https://lo.unisa.edu.au/course/view.php?id=3839§ionid=555859>.

3. Formatting:

Follow these formatting requirements for your assignment:

- Font: Times New Roman
- Spacing: 1.5
- Font size: 12
- Margins: 2.5cm on all sides
- Submission format: Word document
- Word count: 2500 words (excluding image section and reference list but including in-text referencing).

4. Assignment Marking Rubric:

Your assignment will be assessed according to the provided marking rubric. Refer to the rubric for guidance on the percentage weightings of each component. Use it as a guide for including appropriate information in each section of your assignment.

5. Grading & Feedback:

You will receive an overall grade of HD, D, C, P1, P2, or F for this assignment. Read the feedback provided by your marker within the word document and apply it to future assessments. The

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feedback aims to enhance your knowledge, writing skills, and ability to apply them in future studies, research, and clinical practice.

6. Patient Confidentiality:

Include a signed statement from your supervisor confirming that you followed workplace protocols regarding patient confidentiality and permission procedures. The required form is available in the assessment section on the course learn online site. Remember to de-identify all images used in your assignment.

Assessment Instructions – Step-by-Step Guide:

Task 1: Review the learning resources

- Visit the course learn online site and access the learning resources provided for Module 5 - Shoulder. Navigate to the 'Module Workbook' and move through to the 'Readings' and 'Presentations' chapters.
- Pay close attention to the resources detailing scanning protocols:
 - The 'scanning protocol for the clinical setting' presentation,
 - The ESSR protocol document that you will find in the module study guide, and
 - The protocol explained in the following link:
<https://link.springer.com/article/10.1007/s13244-010-0032-9>

Task 2: Perform a routine shoulder ultrasound

- Select a volunteer (work colleague, family member, or friend) with a normal shoulder who has no previous injuries or surgery to the region.
- Follow your workplace protocol for a shoulder ultrasound or use the provided protocol resources (mentioned in task 1) if your workplace does not routinely perform shoulder ultrasounds.

Task 3: Image the different areas of anatomy included in the protocol

- Capture at least two images of each area according to the protocol you are following.
- Be sure to optimise your images and demonstrate your anatomy well so that what you are imaging can be visualised well on every image.
- Also ensure that each image is appropriately labelled such as Biceps Trans – proximal to distal etc. See images on following page for examples.

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Task 4 (Part 1): Incorporate images into a Word document

- Once you have completed your scan, access your images to add them to your assignment. How you do this will depend on the machine and PACS system that you are using. You can do a quick google search, ask workplace colleagues or post on the discussion forum if you need further guidance on how to do this for your equipment.
- De-identify all images (but please keep the date and time stamp on them) and download them to include in a Word document. Any assignments that include images that have not been deidentified will result in an automatic fail.
- Copy and paste the images into a Word document in a sequential fashion. Using the same order that you performed the scan would be best.
- This will form **part 1** of your assignment.
- Do not include cine captures in your assignment.
- You must also include the **supervisor consent form** at the end of your assignment. This form is available in the assignment section on the learn online site.
- Below is an example of the layout we are after for your images within the word document:



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Task 5 (Part 2): Explain the scanning protocol used and related details

- Provide information on the imaging protocol used (whether it was your workplace protocol or another) and explain the reason for your choice.
- Specify the following information related to your protocol:
 - Probe/s used for your scan.
 - List each area of anatomy imaged and describe the normal sonographic appearance for each area.
 - Describe the imaging planes used for each area.
 - Explain what you were assessing while examining each region.
 - Discuss any challenges encountered during the scan and how you overcame them.
- Identify areas for improvement in future shoulder scans.
- This will form **part 2** of your assignment.
- Use headings to structure your response and keep under **1500 words**.

Task 6 (part 3): Compare a normal and abnormal ultrasound image

- Select one image of a normal area of anatomy from your scan.
- Find an abnormal ultrasound image of the same area from a scholarly reference (journal article or textbook).
- On your two chosen images, label the anatomy demonstrated in both images.

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- Describe the sonographic appearances of both images and make comparisons in your discussion.
- Briefly explain the gross anatomy and function of the selected anatomy. Use diagrams and images to help keep the word count succinct for this part of your response.
- Provide a brief background on the pathology present in the abnormal image, including pathophysiology, epidemiology, and aetiology. Use scholarly references to demonstrate that you have carried out some wider reading on your chosen pathology topic.
- This will form **part 3** of your assignment.
- Use headings to structure your response and keep under **1000 words**.

Task 7: Submission

- Follow the guidelines below for submission of your assignment.
- Submit your assignment as a Word document (not a PDF).
- Access the 'Written Assignment - Case Study' Submission Link in the 'ASSESSMENT: Case Study' section on the learn online site.
- Generate a Turnitin report when submitting the Word document.
- Ensure correct APA referencing for in-text citations and the reference list.
- Keep your answers succinct, following the specified word count.
- Use the provided assignment instructions document and marking rubric as a guide for your responses and seek advice on the discussion forum if you need further assistance for the assignment.

Word count summary:

Part 1 – No word count

Part 2 – 1500 words

Part 3 – 1000 words