ASAR
Australian Sonographer Accreditation Registry

Australian Sonographer Accreditation Registry Limited
(02) 8850 1144, registry@asar.com.au, www.asar.com.au

Appendix 4 – Subject Outline

Name of Subject/Unit	Advanced Musculoskeletal Sonography
Subject/Unit Code	RADY 5025

(Use a separate template for each subject/unit in the course)

Section 1: General Information

1.1 Core or elective subject/unit Indicate if the subject/unit is a:

- [ ] core subject/unit
- [X] elective subject/unit
- [ ] other (please specify):

1.2 Subject/unit weighting
If applicable, indicate, the weighting of this subject/unit and the total course points (eg 10 credit points for the subject/unit and 320 credit points for the course).

4.5	**Subject/Unit Credit Points** (eg 10 credit points)
54	**Total Course Credit Points** (eg 320 credit points)

1.3 Student workload
Indicate below, the expected student workload per week for this subject/unit:

	Number timetabled hours/week*
12+	Number personal study hours/week**
	Number clinical placement hour/week***
12+	Total workload hours/week****

* Total time spent per week at lectures, tutorials, etc
** Total time students are expected to spend per week in studying, completing assignments, etc
*** Total time spent per week on clinical placements
**** That is, * + ** + *** = workload hours.

1.4 Mode of Delivery

Indicate if this subject/unit is delivered (You may tick more than one box).

☐ face to face	☒ online
☐ independent learning module/untimetabled study	☐ by a combination of modes (please specify)
☐ through a practicum	☐ other

Other (please specify)

1.5 Pre-requisites and / or assumed knowledge

Are students required to have undertaken a prerequisite/co-requisite subject/unit(s) for this subject/unit?

☒ Yes ☐ No

If **yes**, provide details of the prerequisite/co-requisite or assumed knowledge requirements below:

Students must have completed all level 1 & 2 courses in the program or provide a copy of their registration as an Accredited Medical Sonographer. Knowledge of general medical sonography scanning principles is assumed. The student should be working in an environment where diagnostic medical sonography is performed, in particular Musculoskeletal Sonography.

1.6 Resource requirements

Do students require access to specialist facilities and/or equipment for this subject/unit (eg specialist facilities, computer access, equipment, particular case / scan types, libraries)?

☒ Yes ☐ No

If **yes**, provide details of the requirements below. Please attach floor plans and photographs or videos showing the facilities and equipment that will be used for the course.

Students need to access the learnonline (moodle) website for this subject. The website provides resource, assessment portals & discussion boards. Students also can access the library and a number of online texts. Students are also required to have access to Musculoskeletal Imaging as part of their learning and assessments

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Section 2 – Academic Details

2.1 Student learning outcomes/objectives
List the clinical and academic learning outcomes / objectives students would be expected to attain by successfully completing this subject/unit (link to assessment tasks (refer to 2.4 below)):

a)	Appraise a case which illustrates how sonography is used to diagnose a complex musculoskeletal condition.
b)	Evaluate sonographic images to identify normal and complex musculoskeletal pathology.
c)	Report on a diagnostic musculoskeletal clinical case that required advanced sonographic scanning skills, image interpretation and clinical reasoning.
d)	

2.2 Subject/unit content and structure

Provide details in the table below, about the subject/unit content and how it is structured, including practical components such as laboratory, studio and work-based placements. **NOTE**: Please attach course materials where available

At this point in the program, the students undertaking this course will be Accredited Medical Sonographers and it is expected that much of the student's learning will be self-directed. Students enrolled in to this course will have different clinical experiences in Musculoskeletal Sonography, ranging from very little experience to a broad experience. This course endeavours to build on and extend students' knowledge from the previous Musculoskeletal Sonography course. Therfore the approach to this course is different to the first course. In this course students have the flexibility to tailor their learning to their personal learning needs and situations within their own workplace. This is done by giving students the opportunity to choose their areas of interest in the assignments.

The topics pertaining to this course have been broken down into 9 modules, with each module covering approximately one to two weeks' work over the whole study period. These modules are presented in an order that provides the optimum learning process for this course. The content has been tailored to be as clinically relevant to practicing sonographers and the content contained within each module is presented at a more advanced level than the MSK course within the grad dip program. Students will complete activities via interactive web-based simulation programs.

The following lists the content covered:

Module 1 - Overview and Introduction
Module 2 - Advanced Shoulder
Module 3 - Upper Arm and Elbow
Module 4 - Forearm
Module 5 - Hand and Wrist
Module 6 - Hip and Pelvis
Module 7 - Thigh and Knee
Module 8 - Leg
Module 9 - Ankle and Foot

2.3 Teaching methods/strategies

Briefly describe below, the teaching methods/strategies (face to face lectures, online tutorial) used in this subject/unit:

The course is online and modularised, with students advised to attend to each module in a time frame documented on the study calendar. There is a one-week teaching break mid study period along with three revision/assessment weeks at the end of each study period. Discussion forums are available online for students to ask questions, discuss journal articles and cases that they have encountered and to engage with their fellow students and course coordinator. Introductory information includes a dedicated section on the course learn online site which contains an outline of the course, summary of the assessments and general resources including an electronic copy of the study guide, links to relevant websites and learning activities. There is also a video recording from the course coordinator that outlines how the course will run throughout the study period and details information regarding the assessment pieces. There are short presentations that the students can watch in their own time throughout each module as well as a PowerPoint summary presentation for each module. There are also presentations provided for each module by experts in musculoskeletal sonography that focus on a particular pathology or region of anatomy and how you would examine this within the clinical setting. These are all aimed at the advanced sonographer so are resources that will help students to increase their knowledge base and apply this newly learnt knowledge to their workplace.

2.4 Student assessment:

Provide, in table format as shown below, a schedule of formal clinical and academic assessment tasks and major examinations for the subject/unit

Assessment Type (eg Assignment – 2000 word essay (specify topic), Examination (specify length))	When Assessed (eg Week 5)	Weighting (eg 10% of Total subject/unit marks)	Learning Outcomes Assessed (link to 2.1 above eg (a), (b))
Case Study Presentation (Parts A, B & C) - 2000 words	Weeks 7-1	20	all
Case Study Report - 3000 words	week 14	60	all
Image Interpretation Quiz - 50 questions	week 17	20	all

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2.5 Prescribed and recommended readings:
Provide below, in formal reference format, a list of the prescribed and recommended readings:

Allan, P, Baxter, G & Weston, M 2011, Clinical Ultrasound, Churchill Livingstone, Edinburg (eBook)

Beggs, I, Martinogi, C & Tagliafico, A 2014, Musculoskeletal Ultrasound, Lippincott Williams & Wilkins, Philadelphia (Ovoid database)

Bianchi, S & Martinoli, C 2007, Ultrasound of the Musculoskeletal System, Springer, Berlin (eBook)

Silvestri, E, Muda, A & Sconfienza L 2012, Normal Ultrasound Anatomy of the Musculoskeletal System: A Practical Guide, Springer (eBook)

Waldman, S. 2016, Waldman's comprehensive atlas of diagnostic ultrasound of painful conditions, Wolters Kluwer (eBook).

As well as recommended e-readings as listed on the course learn online site within each module.

2.6 Required Attachments:

Please provide the following materials for each subject:

1. The learning materials for the student
2. The teaching materials
3. The assessment tasks (academic and clinical)
4. Any materials provided to workplace supervisors.