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# Complex Malignant Hematology

COURSE SYLLABUS (CMHE00ODM20)

2020

**Course Authors:**

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**Course Facilitators:**

Donalda MacDonald, RN, CON(C)  
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**Course Format:** eLearning

**Contact Information:**

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**Technical Support:** [support@desouzainstitute.com](mailto:support@desouzainstitute.com)

**Registration:** Required

**Eligibility:** Registered nurses or physicians.

**Prerequisite:** None. *Provincial Standardized Chemotherapy and Biotherapy (PSCB)* is strongly recommended prior to taking this course.

## A. COURSE DESCRIPTION

Cancer care is changing rapidly, and no area is changing faster than complex malignant hematology. *Complex Malignant Hematology* is a comprehensive course covering core competency areas in managing hematological malignancies. This course is designed to equip you with the knowledge you need to succeed in this challenging and rewarding subspecialty.

The course is divided into **twelve sections** with **forty-four modules** in total. The first section is an optional review of hematopoiesis, the immune system and diagnostic testing. The next four sections will introduce you to the essentials of **multiple myeloma, lymphoma, leukemia, and aplastic anemia**. These four disease-site sections cover pathophysiology, incidence, risk factors, clinical presentation, and more importantly, the latest updates in diagnostics, staging, and treatment options. The disease site sections are followed by a focused section on hematopoietic stem cell transplant that includes the latest indications and possible complications. The latter half of the course will introduce you to the complications of hematological malignancies and their treatment, with a focus on anticipating and preventing oncological emergencies. The final two sections explore psychosocial issues for patients and families, and survivorship care.

Although you can complete the various components of the course at your own pace, you must complete the course, in its entirety, within **twelve weeks** of the course start date (this date can be found on the course information page in *My Account*).

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**Domain of Practice** Treatment and Delivery of Evidence Based Care

**Learning Hours** 40 hours

**de Souza Credit** 1 credit

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## B. COURSE OBJECTIVES

By the end of this course, you will be able to:

- Describe the clinical presentation, risk factors, and pathophysiology of multiple myeloma, lymphoma, leukemia, and aplastic anemia.
- Explain the diagnosis and staging of each disease site, including prognostic indicators where available.
- Identify treatment modalities that are currently used for each site.
- Differentiate the care needs of patient's receiving allogenic and autologous hematopoietic stem cell transplant.

- Identify complications of the disease or its treatment, and explain the assessment and management of these complications.
- Anticipate, prevent, and manage oncological emergencies seen in patients with hematological cancers.
- Identify the components to be integrated into patient and family education based on diagnosis, treatment, prognosis, and potential complications.
- Recognize the unique issues for cancer survivors.

## C. MODE OF LEARNING: eLearning

The eLearning environment fosters a self-directed approach. You can progress through the modules and exercises at a convenient time, at home or work. The course timetable, in **Section F** of the course syllabus, outlines our suggested weekly expectations for participants.

- **eLearning Modules**: Sections and modules were developed by the de Souza education team to reflect the latest knowledge in complex malignant hematology. The content is up-to-date and includes interactive application exercises and links to the latest clinical guidelines.
- **Study Guides**: Each course section has a printable study guide that you can print and fill in as you progress through the interactive course modules.

## D. MODES OF EVALUATION

As part of the evaluation process, you are required to complete the following:

- **A Baseline Participant Survey**: This survey assesses your knowledge, attitude, and confidence before you begin the eLearning modules for the course.
- **eLearning Modules**: You must complete all **12 sections** by the course end date.
- **Final Test**: There is a final test at the end of the course. You must achieve a **minimum grade of 75%** to pass. The test is open book and you have **two attempts** at the test to achieve a passing grade.
- **Course Evaluation**: At the end of the course, you will be required to complete a “Participant Post Survey” where you can provide your feedback on whether the content met your professional practice needs. These surveys are facilitated electronically through eLearning.

When you have met the all of the above requirements, you will receive **40 learning hours, 1 de Souza credit** towards obtaining your de Souza designation, and an email containing instructions on how to download your certificate of completion via your “My Account”.

## E. EXPECTATIONS FOR PARTICIPANTS

To be successful in completing this course, you are encouraged to set aside 3 to 4 hours each week to complete the activities. The total learning hours for this course is 40 hours.

Writable study guides are available to download and fill in if you wish. The study guides are not mandatory and completion of them is **not included in the learning hours**. If you do complete the study guides you will have a copy of the course content for your future reference; once you complete the course you will no longer have access to the course modules and resources. There are a number of printable documents throughout the course, which you may want to save or print out.

Your course activity completion will be reflected in your **grade book**. You are expected to complete all sections through the eLearning system.

<b>Section 01: Review of hematopoiesis, the immune system, and diagnostic testing</b>	0 learning hours*
<b>Section 02 : Multiple Myeloma</b>	3.00 learning hours
<b>Section 03: Lymphoma</b>	6.50 learning hours
<b>Section 04: Leukemia</b>	5.75 learning hours
<b>Section 05: Aplastic Anemia</b>	0.75 learning hours
<b>Section 06: Hematopoietic Stem Cell Transplant</b>	4.00 learning hours
<b>Section 07: Infection</b>	2.00 learning hours
<b>Section 08: Other Complications of Disease and Treatment</b>	2.00 learning hours
<b>Section 09: Oncological Emergencies</b>	6.00 learning hours
<b>Section 10: Toxicities</b>	5.00 learning hours
<b>Symptom Assessment Video Exercise</b>	1.00 hour
<b>Section 11: Psychosocial Issues</b>	2.50 learning hours
<b>Section 12: Survivorship</b>	1.50 learning hours
<b>TOTAL</b>	<b>40.00 learning hours</b>

\*Section 01 is for your reference only. The content in section 01 will not be part of the section quizzes, and therefore does not contain study guides.

## F. SUGGESTED COURSE TIMELINE

You **do not** have to complete the weekly course activities exactly as outlined below. However, you must complete all course requirements within **twelve weeks** of starting the course.

	Suggested Weekly eLearning Activities
Week 1	<ul style="list-style-type: none"> <li>✓ Learner Agreement</li> <li>✓ Participant Baseline Survey</li> <li>✓ Optional: Section 01 - Review of hematopoiesis, the immune system and diagnostic testing</li> <li>✓ Download and Print the <b>Multiple Myeloma</b> Study Guide</li> <li>✓ Multiple Myeloma - Module 01: Pathophysiology &amp; Diagnosis (1.5 hours)</li> <li>✓ Multiple Myeloma - Module 02: Treatment (1.5 hours)</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>✓ Download and Print the <b>Lymphoma</b> Study Guide</li> <li>✓ Lymphoma - Module 01: Introduction, Presentation, and Diagnosis (0.5 hours)</li> <li>✓ Lymphoma - Module 02: Hodgkin lymphoma (1.5 hours)</li> <li>✓ Lymphoma - Module 03: Introduction to NHL (1 hour)</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>✓ Lymphoma - Module 04: Aggressive B-Cell NHL (1.5 hours)</li> <li>✓ Lymphoma - Module 05: Indolent B-cell NHL (0.75 hours)</li> <li>✓ Lymphoma - Module 06: Peripheral T-cell NHL (0.75 hours)</li> <li>✓ Lymphoma - Module 07: Waldenström Macroglobulinemia (0.5 hours)</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>✓ Download and Print the <b>Leukemia</b> Study Guide</li> <li>✓ Leukemia - Module 01: Pathophysiology and diagnosis (1 hour)</li> <li>✓ Leukemia - Module 02: Acute myeloid leukemia (1 hour)</li> <li>✓ Leukemia - Module 03: Acute lymphoblastic leukemia (1 hour)</li> </ul>

Week 5	<ul style="list-style-type: none"> <li>✓ Leukemia - Module 04: Myelodysplastic syndrome (0.75 hours)</li> <li>✓ Leukemia - Module 05: Chronic myeloid leukemia (1 hour)</li> <li>✓ Leukemia - Module 06: Complications &amp; Supportive care (1 hour)</li> </ul>
Week 6	<ul style="list-style-type: none"> <li>✓ Download and Print the <b>Aplastic Anemia</b> Study Guide</li> <li>✓ Module 01: Aplastic Anemia (0.75 hours)</li> <li>✓ Download and Print the <b>Hematopoietic Stem Cell Transplant</b> Study Guide</li> <li>✓ HSCT - Module 01: Introduction to HSCT (1 hour)</li> <li>✓ HSCT - Module 02: Autologous HSCT (0.5 hours)</li> <li>✓ HSCT - Module 03: Allogenic HSCT (0.75 hours)</li> </ul>
Week 7	<ul style="list-style-type: none"> <li>✓ HSCT - Module 04: Complications of HSCT (1.5 hours)</li> <li>✓ HSCT - Module 05: Survivorship Issues after HSCT (0.25 hours)</li> <li>✓ Download and Print the <b>Infection</b> Study Guide</li> <li>✓ Infection- Module 01: Principles of Infection (0.25 hours)</li> <li>✓ Infection- Module 02: CVADs and Infection Risk (0.25 hours)</li> <li>✓ Infection- Module 03: Types of Infection (1.5 hour)</li> </ul>
Week 8	<ul style="list-style-type: none"> <li>✓ Download and Print the <b>Other Complications of Disease and Treatment</b> Study Guide</li> <li>✓ Module 01: Other Complications of Disease and Treatment (hours)</li> <li>✓ Download and Print the <b>Oncological Emergencies</b> Study Guide</li> <li>✓ Oncological Emergencies - Module 01: Sepsis (0.75 hour)</li> <li>✓ Oncological Emergencies - Module 02: TLS (0.75 hour)</li> <li>✓ Oncological Emergencies - Module 03: DIC (0.75 hour)</li> <li>✓ Oncological Emergencies - Module 04: Hypercalcemia (0.75 hour)</li> </ul>

Week 9	<ul style="list-style-type: none"> <li>✓ Oncological Emergencies - Module 05: SVCS (0.75 hour)</li> <li>✓ Oncological Emergencies - Module 06: Hyperleukocytosis (0.75 hour)</li> <li>✓ Oncological Emergencies - Module 07: SOS (0.75 hour)</li> <li>✓ Oncological Emergencies - Module 08: CRS (0.75 hour)</li> <li>✓ Download and Print the <b>Toxicities</b> Study Guide</li> <li>✓ Toxicities- Module 01: Introduction to Symptom Assessment Tools (0.5 hours)</li> </ul>
Week 10	<ul style="list-style-type: none"> <li>✓ Toxicities- Module 02: Myelosuppression (0.75 hours)</li> <li>✓ Toxicities- Module 03: Peripheral Neuropathy (0.75 hours)</li> <li>✓ Toxicities- Module 04a: GI Toxicities - Introduction (0.25 hours)</li> <li>✓ Toxicities- Module 04b: GI Toxicities - Constipation (0.75 hours)</li> <li>✓ Toxicities- Module 04c: GI Toxicities - Diarrhea (1.25 hour)</li> <li>✓ Toxicities- Module 04d: GI Toxicities – Nausea and Vomiting (0.75 hours)</li> <li>✓ Toxicities- Module 05: Fatigue (0.75 hours)</li> </ul>
Week 11	<ul style="list-style-type: none"> <li>✓ Download and Print the <b>Psychosocial Issues</b> Study Guide</li> <li>✓ Psychosocial Issues – Module 01: Sexuality and Fertility (1.75 hours)</li> <li>✓ Psychosocial Issues – Module 02: Emotional Distress (0.75 hours)</li> <li>✓ Download and Print the <b>Survivorship</b> Study Guide</li> <li>✓ Module 01: Survivorship (1.5 hours)</li> </ul>
Week 12	<ul style="list-style-type: none"> <li>✓ Review content that you found more challenging and prepare to write the final test.</li> <li>✓ Complete the Final Test</li> <li>✓ Course Evaluation: Participant Post-Survey</li> </ul>

## G. FACILITATOR AVAILABILITY

This course is self-directed. The course facilitator will:

- Answer your questions related to course content.
- Monitor the registration process.
- Be available to you for questions throughout the course.

You can expect the facilitator to respond to your questions within 24-hours during the week and within 48 hours on the weekend.

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Technical support is available by contacting [support@desouzainstitute.com](mailto:support@desouzainstitute.com)

## H. COURSE AUTHORS' & FACILITATORS' BIOGRAPHY

### **Donalda MacDonald, RN, CON(C) – Course author and facilitator**

Donalda has been an oncology nurse for 45 years, 35 years working in clinical oncology at Mount Sinai Hospital in Toronto, and the last 10 as an educator at de Souza. Her lifelong education focus has been on the novice oncology nurse, whether that nurse is a new grad or someone transferring into oncology from another clinical area. Donalda has held certification in oncology from both the Oncology Nursing Society and the CNA since 1998. She has served on the board of directors for the Canadian Association of Nurses in Oncology for seven years, five of which she was treasurer. Donalda has done item writing and been a reviewer for the CNA oncology certification exam. In 2008, Donalda was nominated by her oncology peers and was one of the 100 nurses from across Canada to receive the CNA Centennial Award honouring her work in education of novice oncology nurses. In 2014, she received the CANO-ACIO Lifetime Achievement Award.

### **Jennifer Wiernikowski, MN, NP-Adult, CON(C) – Course author**

Jennifer Wiernikowski is a Nurse Practitioner in Hematology at the Juravinski Cancer Hospital in Hamilton Ontario. Her clinical work focuses on caring for patients and families facing hematological malignancies, autologous and allogeneic stem cell transplant. She is the past secretary of the Canadian Blood and Marrow Transplant Group (CBMTG), past President of the Canadian Association of Nurses in Oncology (CANO/ACIO) and previous Chief of Nursing Practice for the Juravinski Cancer Program. Jennifer holds a clinical cross appointment in the schools of nursing at McMaster University and at the University of Toronto. She is an Associate Member of the Department of Oncology, Michael G DeGroot School of Medicine at McMaster University. In 2019, Jennifer was the recipient of the Canadian Association of Nurses in Oncology (CANO/ACIO) Award of Distinction.



**Samantha Scime, RN, MN, CON(C) – Course facilitator**

Samantha has grown her passion for oncology in both inpatient and outpatient settings, as well as, an urgent care unit for patients experiencing oncologic emergencies. Over the course of her career, Samantha has sat on several committees and chaired the Oncology Patient and Family Education committee, Oncology Nursing Journal Club and Cancer-related Sexual Health Working Group at St. Michael's Hospital. As a member of these committees, she had the opportunity to lead a variety of quality improvement projects including two award-winning patient education initiatives, which have been presented both at the local and national level. Samantha has contributed to the oncology nursing community as a nursing student preceptor, teaching assistant at University of Toronto's Faculty of Nursing, Director of Communications for Toronto's Canadian Association of Nurses in Oncology (CANO) chapter and as a CANO board member. Samantha completed her BScN at McMaster University and her Master of Nursing at the University of Toronto. Samantha also obtained her Oncology CNA certificate in 2016.

**I. VIRTUAL LIBRARY**

de Souza Institute has a virtual library that can be accessed by those registered in this course or any other de Souza Institute continuing education program. This resource enables you to access over 1500 e-Journals, 200 e-books and 8 on-line databases such as CINAHL or Ovid-Medline. You can use the virtual library to access the additional reading materials for your course. The virtual library can be accessed 24 hours a day using your login and password.

The direct link is: <https://library.desouzainstitute.com/login>.

**J. TECHNICAL SUPPORT****eLearning Centre Orientation**

The eLearning Centre Orientation is designed to introduce you to online learning and to help you understand how to navigate through the de Souza Institute eLearning centre and courses. It is strongly recommended that you complete this orientation so that you will be able to successfully navigate de Souza's eLearning environment.

**de Souza Institute Support**

If you have questions about the content of a course please email your course facilitator.

If you need assistance accessing or navigating the eLearning Centre, please refer to the eLearning Orientation course. If you have questions or have any technical difficulties, please contact [support@desouzainstitute.com](mailto:support@desouzainstitute.com).

## K. POLICIES AND PROCEDURES

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[Cancellations, Incomplete and No Show Policy](#)

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