

### Educational Assistant Center for Studies and Development of Medical Education Curriculum planning unit

# **<u>Combined course plan form</u>** (Attendance and absenteeism)

# General characteristics of the course

Name of unit: Critical care nursing for patients with multi-organ disorders and special needs	Faculty: Nursing and Midwifery	Course: Critical Care Nursing
Degree: Masters	Number of theoretical unit :2	Second semester
Academic year: 2025-2026	responsible teacher : Dr. Seidi	<b>Prerequisite or simultaneous course:</b> Fundamentals of critical care nursing - diagnostic assessments - pharmacology
Class day: Sunday	Class time: 16:00-18:00	Mrs serve Mohammadi (17.1.1404) Mr Keshavarzi (24.1.1404/31.1.1404) Dr.Sheikh Zakariaee(7.2.1404)
Class day: Monday	Class time: 16:00-18:00	Mr Feizi (18.1.1404/25.1.1404) Dr. <b>Seidi</b> (1.2.1404/8.2.1404)

### • Details of the responsible teacher:

First name	last name	rank	group	College/hospital	Phone number	Mobile Phone Number
Jamal	Seidi	Associate	Nursing	Nursing and	+98208733627636	+9809183781006
		professor		Midwifery		

E-mail address of the responsible teacher: jamal.seidi@yahoo.com

First name	last name	rank	group	College/hospital	Mobile Phone Number
Saleh	Keshavarzi	Nursing	Instructor	Nursing and Midwifery	+989188706357
Hossein	Faizi	Nursing	Instructor	Nursing and Midwifery	+989181731736
Sarveh	Mohammadi	Midwifery	Instructor	Nursing and Midwifery	+989188802204
Neda	Sheikh Zakariai	Nursing	Assistant Professor	Nursing and Midwifery	+989188718970

## **Profile of associate professors:**

### **Objectives and introduction of the lesson**

### A: introduction of the lesson

### **B:** General objective

Familiarity with special care for patients with multi-organ disorders and patients with special needs

### **C:** Specific objective

1- Cognitive:

At the end of the course, the student should be able to:

1. Explain the general concepts of nursing care in trauma/types of shock/trauma of different systems.

2. Explain the concepts and pathophysiology of hypovolemic and cardiogenic shock.

3. Explain the concepts and pathophysiology of septic shock and anaphylaxis.

4. Explain the concepts and pathophysiology of multi-organ failure and generalized response syndrome and its differentiation from inflammatory response syndrome.

5. Explain the concepts and pathophysiology of poisoning, drug overdose and intoxication.

6. Explain the concepts and pathophysiology of types of trauma to body systems.

7. Explain the superior vena cava syndrome.

8. Explain spinal cord compression.

- 9. Summarize pericardial effusion and cardiac tamponade.
- 10. Explain hypercalcemia as a metabolic problem in cancer.
- 11. Describe the syndrome of inappropriate antidiuretic hormone secretion.
- 12. Describe tumor lysis syndrome.
- 13. Describe disseminated intravascular coagulation.
- 14. Explain septic shock.
- 15. Know the types of abnormal bleeding before and after delivery.
- 16. Recognize the management and control of bleeding before and after delivery.
- 17. Know the definition of abnormal labor.
- 18. Recognize and apply the management of abnormal labor.
- 19. Recognize thromboembolism in pregnancy and its management.
- 20. Recognize and apply preeclampsia and eclampsia and its management.
- 21. Know the complications and problems of multiple pregnancy and be familiar with its management.
- 22. Discuss the classification methods used for burn injuries.
- 23. Describe the pathophysiology of burns.
- 24. Explain the changes in other organs of the body.

25. Describe the necessary care for a patient with burn injuries (with emphasis on how to administer fluid therapy in different types of burns).

- 26. Describe the mechanism of infection in burns.
- 27. Explain the methods of preventing infection in burns.
- 28. Describe the treatment measures in burn infections.
- 29. Describe pain and its management in burns.
- 30. Know the transplantation of soft organs and solid organs.
- 31. Describe the immunology of transplantation.
- 32. Name the indications and contraindications of transplantation.
- 33. Name the criteria for selecting the recipient and donor of transplantation.
- 34. Describe the stages of organ transplantation.
- 35. Describe the legal, ethical, and religious issues in transplantation.
- 36. Describe the care after transplantation surgery.
- 37. Name the types of transplant rejection and related interventions.

38. Describe the drugs used in transplantation (glucocorticoids, mycophenolate mofetil, polyclonal antibodies, monoclonal antibodies, azathioprine, cyclosporine, seprilis or rapamycin...).

39. Describe the education of transplant patients.

- 40. Explain nutrition in transplant patients.
- 41. Describe the opportunistic infections specific to transplantation.

#### 2- Psychomotor:

- At the end of the course, the student should be able to
- 1) Apply specialized nursing care to patients with multi-organ disorders.

2) Select one problem from among the existing problems associated with multi-organ disorders and present a nursing process by selecting an effective and useful nursing intervention

#### .3- Attitudinal:

- At the end of the course, the student should be able to
- 1) Be active in theory classes.
- 2) Participate actively in group discussions.
- 3) Find the motivation and attention necessary to conduct studies related to the subject.
- 4) Feel responsible for completing assigned theoretical projects and assignments.

### **B:** Brief introduction of the lesson

In this course, the student becomes familiar with special nursing care in organ transplantation and critical situations (penetrating and non-penetrating trauma, burns, shock, multiple organ failure syndrome, poisonings and drug overdoses, infections acquired from health systems and hematology, oncology, high-risk pregnancy and childbirth emergencies) and is able to assess clients in emergency situations and make appropriate decisions .during urgent and critical care

No	The title of the face-to-face meeting	Date of presentatio n/ Hijri calendar	How to present	How to provide the necessary facilities/teacher
1	Preeclampsia and eclampsia and their management	17/1/1404	Lecture/question and answer/reverse class/group activity	Laptop/vido projector/whiteboard / <b>Mrs Mohammadi</b>
2	Concepts and pathophysiology of drug poisoning, overdose, and intoxication	18/1/1404	Lecture/question and answer/reverse class/group activity	Laptop/vido projector/whiteboard / Mr Feizi
3	General concepts of nursing care in trauma/types of shock/trauma of different systems	24/1/1404	Lecture/question and answer/reverse class/group activity	Laptop/vido projector/whiteboard / Mr. Keshavarzi
4	Concepts and pathophysiology of types of trauma to body systems	25/1/1404	Lecture/question and answer/reverse class/group activity	Laptop/vido projector/whiteboard / Mr Feizi

# **Determining face-to-face lesson sessions**

5	Concepts and pathophysiology of hypovolemic and cardiogenic shock	31/1/1404	Lecture/question and answer/reverse class/group activity	Laptop/vido projector/whiteboard / Mr. Keshavarzi
6	Transplant Immunology - Immunosuppressive Drugs in Transplantation	1/2/1404	Lecture/question and answer/reverse class/group activity	Laptop/vido projector/whiteboard / <b>Dr.Seidi</b>
7	Hematology emergencies	7/2/1404	Lecture/question and answer/reverse class/group activity	Laptop/vido projector/whiteboard / Dr.Sheikh Zakariaee
8	Nursing Management of the Potential Organ and Tissue Donor	8/2/1404	Lecture/question and answer/reverse class/group activity	Laptop/vido projector/whiteboard / <b>Dr.Seidi</b>

# **Determining non-attendance sessions**

Anticipated non-attendance part (including the title, date of presentation, the second session of all the in-person and non- attendance sessions)	The reason for the possibility of absenteeism	The method of covering content in absentia (Including how to present, being online or not, required facilities, etc.)
Management of bleeding in pregnancy/ Mrs Mohammadi/2th session/18/1/1404	Flipped classroom - Lack of time in the educational calendar	Text/multimedia/educational video /Discussion and group work in the discussion room in the Navid system
Types of burns and their meanings/ <b>Mr</b> <b>Feizi/</b> 3th session/ 24/1/1404	Flipped classroom - Lack of time in the educational calendar	Text/multimedia/educational video /Discussion and group work in the discussion room in the Navid system
Concepts and Pathophysiology of Septic Shock and Anaphylaxis/ Mr. Keshavarzi/3th session/ 25/1/1404	Flipped classroom - Lack of time in the educational calendar	Text/multimedia/educational video /Discussion and group work in the discussion room in the Navid system
Infection, pain, and psychological issues in burns/ Mr Feizi/4 <sup>th</sup> session/31/1/1403	Flipped classroom - Lack of time in the educational calendar	Text/multimedia/educational video /Discussion and group work in the discussion room in the Navid system
Concepts and Pathophysiology of Poisoning and Drug Overdose and Intoxication <b>Mr.</b> <b>Keshavarzi/4<sup>th</sup> session/ 1/2/1403</b>	Flipped classroom - Lack of time in the educational calendar	Text/multimedia/educational video /Discussion and group work in the discussion room in the Navid system
Oncology emergencies in cancer/ Dr.Sheikh Zakariaee //2th session/7/2/1703	Flipped classroom - Lack of time in the educational calendar	Text/multimedia/educational video /Discussion and group work in the discussion room in the Navid system
Critical Care Nursing in Renal Transplantation/Dr.Seidi/3th seiion/8/2/1403	Flipped classroom - Lack of time in the educational calendar	Text/multimedia/educational video /Discussion and group work in the discussion room in the Navid system
Critical Care Nursing in Heart Transplantation/Dr.Seidi/4th seiion/9/2/1403	Flipped classroom - Lack of time in the educational calendar	Text/multimedia/educational video /Discussion and group work in the discussion room in the Navid system

# Study resources for students

Book details including title, authors, translators, publications, year and time of publication	Pages and chapters specified for the test
<b>Dr.Seidi's</b> Course Content Resources Main Resources:	Pages and chapters will be presented in the classroom by the teacher.
<ol> <li>International Transplant Nurses Society, American Nurses</li> <li>Association. Transplant Nursing: Scope and Standards of Practice.</li> <li>Nursesbooks. org; 2009.</li> </ol>	classiooni by the teacher.
2. Morton, patricia Gonce; Fontahne, Dorrie K. Critical Care Nursing: A holistic approach, 9th. Philadelphia: Wolters Kluwer, Lippincott. Williams & Wilkins. 2009.	
B.Urden, Linda D.; Stacy, Kathleen M.; Lough, Mary E. Thelan's Critical Care Nursing. Diagnosis and Management .5th.United States of America. Mosby Elsevier.2006.	
<ol> <li>Kaplow R, Hardin SR. Critical care nursing: synergy for optimal outcomes. Jones &amp; Bartlett Learning; 2007.</li> <li>Sole ML, Klein DG, Moseley MJ. Introduction to Critical Care Nursing E-Book: Introduction to Critical Care Nursing E-Book. Elsevier</li> </ol>	
Health Sciences; 2020 Jul 4.	
<ul> <li>Mr. Saleh Keshavarzi's Course Content Resources</li> <li>Main Resources:</li> <li>1. Hinkle JL, Cheever KH. Brunner and Suddarth's textbook of medical- surgical nursing. Wolters kluwer india Pvt Ltd; 2018 Aug 30.</li> <li>2. Urden LD, Stacy KM, Lough ME. Critical care nursing, diagnosis and management, 7: critical care nursing. Elsevier Health Sciences; 2013 May 1</li> <li>3. Legome E, Shockley LW, editors. Trauma: a comprehensive</li> </ul>	Pages and chapters will be presented in the classroom by the teacher.
emergency medicine approach. Cambridge University Press; 2011 Jun 16.	
Mr Feizi's Course Content Resources Main Resources: 1. Hinkle JL, Cheever KH. Brunner and Suddarth's textbook of medical- surgical nursing. Wolters kluwer india Pvt Ltd; 2018 Aug 30. 2. Linda D. Critical care nursing: Diagnosis and management. Elsevier health sciences; 2018.	Pages and chapters will be presented in the classroom by the teacher.
Mrs Mohammadi's Course Content Resources Main Resources: 1. Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS. Williams obstetrics. Cunningham FG, editor. New York: McGraw-Hill Medical; 2014. 2. High-Risk Pregnancy: Management Options, 5th Edition.by David James Philip J. Steer (Editor), Carl P. Weiner (Editor), Bernard Gonik (Editor), Stephen C Robson (2018) 3. Ricci SS, Kyle T. Maternity and pediatric nursing. Lippincott	Pages and chapters will be presented in the classroom by the teacher.
Williams & Wilkins; 2009.         Dr.Sheikh Zakariaee 's Course Content Resources         Main Resources:         1. Hinkle JL, Cheever KH. Brunner and Suddarth's textbook of medical- surgical nursing. Wolters kluwer india Pvt Ltd; 2018 Aug 30.         2. Linda D. Critical care nursing: Diagnosis and management. Elsevier health sciences; 2018.	Pages and chapters will be presented in the classroom by the teacher.
<ol> <li>Blak, J.Hawks, J.Medical-Surgical Nursing, Clinical Management for Positive Outcomes.Saunders co,2009.</li> <li>Gilmore, D. medical transcription fundamentals. Lippincott williamsa wilkins. 2009</li> </ol>	

# Article details including title, authors, journal,

# How students can access the article

year and publication number and pages Rocha CC, Neto AV, da Silva AB, Farias VA, D'Eca Junior A, Silva RA. Nursing care for kidney transplant patients: a scoping review. Aquichan. 2021 Sep;21(3).

https://scholar.google.com/scholar?q=Transplant+Nursing& . hl=en&as\_sdt

Villarreal-Granda P, Recio-Platero A, Martín-Bayo Y, Durantez-Fernández C, Cárdaba-García RM, Pérez-Pérez L, Madrigal M, Muñoz-del Caz A, Ruiz EB, Jiménez-Navascués L, Zambrano PP. Systematic Review of Case Manager Nurse in Heart Transplant and Heart Failure Consultation. InTransplantation Proceedings 2024 Oct 24. Elsevier.	https://scholar.google.com/scholar?q=heart+transplant+nur sing&hl=en&as_sdt
Orbay H, Corcos AC, Ziembicki JA, Egro FM. Challenges in the management of large burns. Clinics in Plastic Surgery. 2024 Apr 1;51(2):319-27.	https://scholar.google.com/scholar?hl=en&as_sdt
Kuo LW, Ko PC, Liao CA, Huang YT, Cheng CT, Wang YH, Ouyang CH, Huang JF. Risk factors and economic impact of long-term nursing care after major trauma. Frontiers in Public Health. 2025 Mar 18;13:1535784.	https://scholar.google.com/scholar?hl=en&as_sdt=
Karimi A, Sayehmiri K, Vaismoradi M, Dianatinasab M, Daliri S. Vaginal bleeding in pregnancy and adverse clinical outcomes: a systematic review and meta-analysis. Journal of Obstetrics and Gynaecology. 2024 Dec 31;44(1):2288224	https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&as_ylo=2024&as_y hi=
Yilmaz S, Aryal K, King J, Bischof JJ, Hong AS, Wood N, Gould Rothberg BE, Hudson MF, Heinert SW, Wattana MK, Coyne CJ. Understanding oncologic emergencies and related emergency department visits and hospitalizations: a systematic review. BMC Emergency Medicine. 2025 Mar 5;25(1):40.	https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5& as_ylo=2024&as_yhi=2025&q=Oncology+emergencies+in+ cancer&btnG=

Type of content*	Specifications including title and authors/ producers	Description (address in the system or link)
Audio-video-text -	Specialized nursing care before, during and	https://muknavid.smums.ac.ir/
podcast	after transplantation/ Dr.Seidi	
Audio-video-text -	Concepts and pathophysiology of multiple	https://muknavid.smums.ac.ir/
podcast	organ failure and generalized response	
	syndrome and its distinction from	
	inflammatory response syndrome/ Mr.	
	Keshavarzi	
Audio-video-text	Infection, pain and psychological issues in	https://muknavid.smums.ac.ir/
podcast	burns/ Mr Feizi	

# Self-examination, assignments, term-long and end-of-semester projects for students

### •Self-examination:

• Self-examination: In this course, students, in groups and individually, critique a part of the course content that was explained in the previous session in each session.

• Semester-long assignments: Before each session, students must have pre-study based on the course and lesson plan so that they can participate in class activities in the form of questions and answers and group discussions. Also, during the semester, they can answer or criticize the questions of the professor and other classmates in the Navid system discussion room.

### •Semester-long assignments:

Before each session, based on the course and lesson plan, the student must have pre-study so that he can participate in class activities in the form of questions and answers and group discussions. Also, during the semester, in the classroom and discussion room of the Navid system, they can answer or criticize the questions of the professor and other classmates.

### •Semester long project:

- 1. Choose a subject in Critical care nursing for patients with multi-organ disorders and special needs
- 2. Discuss the selected topic in the discussion room of the Navid system

3. Final presentation in face-to-face class after applying the comments of classmates and professor

# **Other learning activities**

Discussion room (forum) in Navid system or in google meets or sky room

Dear students, use this section to discuss the practical work and complete the project. Set a time in advance for each discussion with the teacher and classmates. Also, other teaching aid materials for the development of learning will be uploaded in the Navid system or in google meet or sky room

# **Evaluation of students**

### **Evaluation method**

a) Formative:

Responding to assignments within the stipulated time

b) Final: Four-choice exams

How to calculate the final grade includes:

1) Assignments and course projects: 4 points

2) End-of-semester exam: 16 points

End-of-semester exam time: According to the faculty exam schedule

### Regulations

Number of times of absence allowed in class and other cases with details

- $\hfill\square$  Attendance on time and regularly in each session is mandatory.
- $\Box$  Any delay and continuous disorder in class will result in a grade deduction.
- □ If you have more than 4 sessions of absence, a decision will be made in accordance with the educational rules of the faculty regarding absence.
- □ It is necessary to keep your mobile phone off.
- $\Box$  Study related to the course topics.
- □ Participate actively in group discussions.
- $\Box$  Do not leave the class during teaching.
- □ Respect the relevant professor and ethical standards.

- Symmetrical sessions will be held with holidays or occasions for any reason in coordination with the faculty and students.

✓ Name and family name and signature of the teacher responsible for the course:

Dr. Jamal Seidi