



جامعة الإمام عبد الرحمن بن فيصل  
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

كلية العلوم الطبية التطبيقية  
College of Applied Medical Sciences

# Clinical Nutrition Program — Internship Manual —

2019 - 2020

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## تمهيد

الحمد لله رب العالمين والصلاة والسلام على أشرف الأنبياء والمرسلين نبينا محمد وعلى إله وصحبه أجمعين ومن تبعهم بإحسان إلى يوم الدين، أما بعد:

تعتبر فترة التدريب الميداني (الإمتياز)، خلاصة الدراسة الأكاديمية و مرحلة الانطلاق من التعليم النظري إلى التطبيق العملي المتواصل في أماكن التدريب و التي قد تكون أماكن التوظيف و العمل مستقبلاً، لذا فإن ما يتركه الطالب من انطباع خلال فترة الامتياز يكون له التأثير الكبير على مسألة قبوله للعمل و الوظيفة، بل إن بعض المنشآت الصحية المرموقة تركز و تدقق على فترة الامتياز أكبر من التركيز على المعدل العام و التقدير النهائي، حيث أن البعض يتصل بمراكز التدريب قبل قبول طلبات التوظيف و يسأل عن مدى الانضباط و تحمل المسؤولية و الجدية أثناء فترة التدريب، لأنها المحك الحقيقي و المقياس الواقعي العملي و ليس فقط معدل التحصيل الأكاديمي النظري، حيث أن الوظيفة عمل تطبيقي و ليست دراسة نظرية مجردة.

بناء على ذلك فإن تحلي الطالب بأخلاقيات المهنة وأهمها تحمل هذه الأمانة العظيمة التي عرضها الله على مخلوقاته العظام بقوله تعالى: (إنا عرضنا الأمانة على السماوات والأرض والجبال فأبين أن يحملنها وأشفقن منها وحملها الانسان إنه كان ظلوماً جهولاً) "الأحزاب ٧٢". وكذلك الاتقان الذي حثنا عليه ديننا العظيم لقول رسولنا الكريم صلى الله عليه وسلم " إن الله يحب إذا عمل أحدكم عملاً أن يتقنه" (صححه الألباني). مع ما يصاحب ذلك من الجد والمثابرة والإخلاص والانضباط والاحترام المتبادل والبعد عن المشاكل والالتزام بالوقت وبالتعاليم المقررة في كل منشأة، فذلك كفيل بإذن الله بحصول الطالب على أفضل النتائج وعكس صورة مشرفة، فنجاحه وتفوقه نجاح وتشريف لقسمه و كليته وللجامعة بشكل عام.

وقبل الختام فإن استحضار النية والاحتساب لخدمة المجتمع والتفاني لرفعة هذه الأمة مما يثاب عليه المسلم حتى وهو يؤدي عمله ويتقاضى عليه الأجر المادي، فإن هذا لا يناهي الحصول على الأجر الديني، إن شاء الله.

ختاماً، أدعو الله الكريم للجميع بالتوفيق وأن يرزقنا الإخلاص والسداد في القول والعمل وأن يمن علينا بالتقوى في السر والعلن وآخر دعوانا أن الحمد لله رب العالمين..

والسلام عليكم ورحمة الله وبركاته

وكيل الكلية لشؤون التدريب

د/ عمر بن إبراهيم أبوزيد

## Preface

Internship period is considered the core of the academic journey, and the transitional phase from the theoretical learning to the practical application in institutions that might be the future working places. Therefore, the impression you leave at the hospital is crucial and taken into consideration with the GPA and other qualifications during recruitment. Employers usually seek commitment, morals and ethics in their future employee through the training centers.

Based on that, interns should take responsibility and demonstrate integrity and honesty. In addition to, hard work, persistence, dedication, discipline, mutual respect, time and instruction adherence. This will guarantee the obtainment of the intended outcomes, which will reflect an honorable image for the department and university.

Moreover, serving the community and contributing to the development of this nation will be rewarded by Allah.

Lastly, I pray for success and grant us loyalty and wisdom in decision making.

Vice dean for training affairs

Dr.Omar Ibrahim Abuzaid

Dear interns,

Congratulations! As you have successfully fulfilled all required courses in 4 years of full-time study; you are now required to spend one full year (12 months) of internship training prior to earning your Bachelor's degree of clinical nutrition.

This internship program manual is intended to guide you and answer many of your expected questions.

Adhering to rules, regulations and guidelines of both the university and training institutions is highly recommended for your own desired benefit.

Wishing you a year full of enriching experiences!

*Warmest wishes,*

*Department of Clinical Nutrition.*

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## Personal Information

<b>Name:</b>	
<b>Academic number:</b>	
<b>Nationality:</b>	
<b>National ID:</b>	
<b>Email:</b>	
<b>Mobile number:</b>	
<b>Emergency contact:</b>	<b>Name:</b>
	<b>Relation:</b>
	<b>Number:</b>
<b>Assigned training hospitals:</b>	<b>1.</b>
	<b>2.</b>
	<b>3.</b>



## Letter of Commitment

By signing below, I agree to comply with the following terms during my training period as an intern:

1. To maintain the confidentiality and privacy of all patients and employees as well as all confidential information of the training institution.
2. To perform my job and assigned tasks with honesty and loyalty according to professional rules and ethics consistent with the rules and regulations of the assigned training institution.
3. To adhere to professional ethics when dealing with colleagues, preceptors, department heads and all co-workers at the institution at all times during my training period.
4. I will not request any change in my internship training plan after finalization of the internship program plan.
5. I am fully responsible of reading, understanding and following the rules and guidelines of the internship year and other administrative forms and procedures as clarified in the internship program manual.

**I have read and understood the above terms and agree to be restricted by them:**

<i>Name:</i>	
<i>Academic number:</i>	
<i>Signature:</i>	
<i>Date:</i>	

## Department of Clinical Nutrition Internship Program

The internship manual is designed to outline the steps to take to ensure your success as an intern and the final stage prior to earning your Bachelor's degree.

The clinical nutrition internship year is an integral part of the clinical nutrition program at Imam Abdulrahman Bin Faisal University (IAU) intended to provide students with a structured experience under the supervision of clinical dietitians to gain valuable expertise and skills needed in the future workplace. After all the credit hours required in the clinical nutrition program have been successfully completed, the student should spend 12 months of training at affiliated hospitals with mutual supervision between the department and the training institution to fulfill the program learning outcomes and internship program objectives. Upon the satisfactory conclusion of this internship period, the student is expected to achieve the program objectives and will be awarded the internship certificate, then Saudi Commission for Health Specialties (SCHS) license can be issued.

**Main purpose:** To apply the previously acquired knowledge and skills in actual clinical settings.

### **Internship program objectives:**

- Perform nutritional assessment and reassessment.
- Plan, implement and evaluate nutritional intervention.
- Apply evidence-based practice.
- Develop nutritional educational material.
- Conduct research on nutrition-related issues.
- Develop effective communication skills in nutritional counseling and education with individuals, families, groups and the community.
- Present case studies and participate in group presentations.

## Mission and Vision Statements

The department of clinical nutrition and internship program advocates the university mission statement.

### **Imam Abdulrahman Bin Faisal University mission:**

Providing creative knowledge, research, and professional services with effective community partnerships.

### **College of Applied Medical Sciences mission:**

Providing applied medical programs, conducting scientific research and cadres with high degree of professionalism with effective community partnership.

### **Department of Clinical Nutrition mission:**

Prepare students academically and clinically for dietetics practice and promote their professional development through foundation of creative knowledge, research and effective community partnerships.

### **Department of Clinical Nutrition vision:**

Attaining distinction and creativity in clinical nutrition specialty nationally, regionally and internationally.

### **Internship program mission:**

To prepare interns to be qualified, knowledgeable and professional dietitian who build on evidence-based research and standards of practice to provide nutritional care, health promotion and disease prevention.

## Rules and Regulations

### 1. Internship training administrative structure:

- 1.1. Internship training is directed and supervised by the vice dean for training affairs and at least one representative from each academic department.
- 1.2. Department representative for internship affairs is assigned by the chairman of the respective department.

### 2. Admission requirements:

- 2.1. To be admitted to the college of applied medical sciences internship training program, the intern must be an IAU, applied medical sciences college graduate who has satisfied all the graduation requirements, and graduation has been approved by the faculty board.
- 2.2. Graduates from other recognized allied medical sciences colleges may be accepted upon approval from vice dean for training affairs and faculty board. Acceptance is contingent to the availability of training positions.
- 2.3. Provided that the above requirements are met, priority of admission to the internship training program will be as follows:
  - 2.3.1. IAU college of applied medical sciences graduates.
  - 2.3.2. Graduates from other saudi universities.
  - 2.3.3. Graduates from non-saudi universities.
- 2.4. All interns must pass the medical examination and have vaccinations as required by each academic department.

### 3. Training period:

- 3.1. The duration of the program is one continuous year.
- 3.2. Interns training commences at the beginning of the new academic year or on date approved by the vice dean for training affairs

**4. Training sites:**

- 4.1. Internship training is conducted at recognized governmental or private institutions or firms.
- 4.2. Training sites are determined by respective academic departments based on criteria ensuring the highest standard.

**5. Dress Code**

- 5.1 Interns should dress in a professional manner, clean and neat and according to the hospital's policy.
- 5.2 Hospital ID should be displayed at all times.
- 5.3 Interns should wear a lab coat. All kinds of jeans are not allowed.
- 5.4 Makeup is not allowed.

**6. Internship program requirements:**

- 6.1. Internship training is conducted through rotations/sections specific for each specialty as determined by respective academic departments.
- 6.2. Interns are required to follow affiliate institution working hours and meet the internship affairs minimum required working hours of 8 hours /day, 5 day/week.
- 6.3. A training manual is prepared by the department to include requirements, rules and regulations, and evaluation forms specific to each specialty. The training manual is updated on a regular basis.
- 6.4. Interns are required to perform duties as assigned to them by supervisors and staff at the training sites.
- 6.5. Rotations are scheduled in such a way that it meets IAU requirements for internship training.
- 6.6. Interns must abide by the approved internship training rules and regulations of IAU college of applied medical sciences, and rules and policies set by the training institution.

6.7. Visits to training sites are scheduled to make sure that training is conducted as planned.

## **7. Attendance, leaves and vacations:**

7.1. Interns are entitled to official vacation days (Eid Aladha, Eid Alfitr, and the National Day).

7.2. Start and end of vacations are determined by the vice dean for training affairs in official correspondence with institutions and interns.

7.3. Sick leaves can be exceptionally granted, provided that legitimate medical report is submitted. (Appendix 5)

7.4. Sick leaves of more than two days during one particular rotation must be compensated.

7.5. Intern deserves two weeks (total 14 days) for maternity and marriage leaves. (Appendix 5)

7.6. All leaves of 25% or more of rotation period will result in repeating the entire period of the rotation.

7.7. Interns must sign in and out attendance sheet, or time-keeping schedule. (Appendix 3)

7.8. Frequent tardiness may result in following disciplinary actions:

7.8.1. Written warning letter.

7.8.2. Repeating part of the rotation.

7.8.3. Repeating the entire rotation.

7.9. Interns may attend symposium / workshops related to their specialty, and time is counted towards training period provided that:

7.9.1. Intern has the option to attend one day per rotation (3 days per year).

7.9.2. Attendance does affect continuity of training.

7.9.3. Approval from training site. (Appendix 6)

7.9.4. Approval from vice dean for training affairs and internship coordinator after reviewing scientific program of the symposium.

7.9.5. Submission of attendance certificate.

## **8. Evaluation and certification:**

8.1. Interns performance is assessed at the conclusion of each rotation using standards evaluation form designed by respective academic department. (Appendix 8)

8.2. Evaluation of interns' performance is done by both the direct clinical supervisor at the training site (70%) and Clinical Nutrition program (30%). The marks assigned for the program is divided to 10% case study presentation at the end of the internship period evaluated by the faculty (Appendix 10) and 20% continuous assessment by the internship and training coordinator. The intern performance is assessed based on the internship learning outcomes. (Appendix 1)

8.3. Evaluation reports are to be submitted to the vice dean for training affairs.

8.4. Unsatisfactory performance in particular rotation period requires repeating that rotation.

8.5. Interns who have satisfactorily completed the internship training period (1 year) will be granted a certificate of completion.

8.6. Interns are expected to achieve the intended internship learning outcomes (ILOs) (Appendix 1). Interns are requested to fill pre/post internship learning outcomes achievement form. (Appendix 1)

## Internship Experience

### **Practical experience:**

All interns will have the opportunity to train at affiliated hospitals under the supervision of clinical dietitians to gain the required practical skills and experience for clinical dietitians. They will master skills in reading medical records, gathering and analyzing nutritionally relevant data, applying complete nutritional assessment for individual patients, planning and implementing nutritional interventions, monitoring and evaluating patients progress. They should be exposed and involved in the handling of challenging cases to enhance their clinical skills.

### **Theoretical experience:**

All interns should have the opportunity of either presenting a case study, engaging in group discussions, giving a theoretical lecture or participating in journal clubs or any equivalent research assignments or projects. In addition, interns are highly encouraged to conduct nutrition-related research during their internship period.

### **Developmental opportunities:**

Interns shall seek further developmental opportunities such as attending courses, workshops, seminars, symposiums and conferences through educational leaves and coordination with the training supervisor at the assigned training facility. Interns are encouraged to improve their communication and public health educational skills by participating in any educational activities or community outreach programs organized by the training facility.



## Benefits of the Internship

### Student:

- Gain experience.
- Job opportunity.
- Observe, practice and apply theories and techniques learned in the classroom.
- Get acquainted with range of discipline- specific.
- Explore and develop interests in selected major.

### Hospital:

- Given the opportunity to serve as a mentor, coach, and educator to an aspiring young professional.
- Provided the opportunity to interact with university faculty.

### University:

- Research collaboration with clinician in the hospital.
- Provides a continuing opportunity for evaluation of the student's needs, abilities, and progress leading to adjustments in the curriculum.
- Extends and improves the university's relationships with the discipline specific community.

## List of Required Items for the Internship

### 1. Clinical nutrition books and guidelines, below are recommended references:

- Kane, K. and Prelack, K., 2019. *Advanced Medical Nutrition Therapy*. 1st ed. Burlington: Jones & Bartlett Learning.
- Mahan, k. and Raymond, J., 2017. *Krause's Food & Nutrition Care Process*. 14th ed. St. Louis: Elsevier.
- Nelms, M. and Sucher, K., 2016. *Nutrition Therapy And Pathophysiology*. 3rd ed. Boston: Cengage Learning.
- Mueller, C., 2012. *The A.S.P.E.N. Adult Nutrition Support Core Curriculum*. 2nd ed. Silver Spring: The American Society for Parenteral and Enteral Nutrition.
- Academy of Nutrition and Dietetics Pocket Guide to Nutrition Assessment.
- Nutrition Care Manual ( IAU E-resource portal).
- eNCPT student edition <https://ncpt.webauthor.com/>
- [www.nutritioncare.org](http://www.nutritioncare.org)

### 2. Medical dictionary

### 3. Calculator

### 4. Pens

### 5. Pencils

### 6. Notebook

### 7. Folder

### 8. Lab coat

### 9. Laptop

## Internship Rotations

The following areas/units in the affiliated hospital are recommended for rotation to enhance the learning experience and provide greater interaction with the clinical environment.

Area/Unit	Weeks
Orientation*	3
Food service	3
Intensive care unit	6
Surgery	6
Medical ward (gastrointestinal, hepatobiliary, pulmonary , pancreatic and diabetes mellitus)	6
Renal/dialysis	4
Pediatric	6
Neonatal	3
Cardiovascular and coronary care unit (CCU)	4
Oncology and hematology	2
Elective**	5
<b>Total</b>	<b>48</b>

\* One week orientation in each hospital, if more than one hospital has been trained in.

\*\* Elective weeks are chosen according to:

- Any department with needed more experience.
- Any department in which the student needs further cases or diseases.
- Other departments not listed above such as: neurological, psychiatric, rehabilitation, transplanting unit, metabolic, orthopedics, ...etc.

## Orientation Week

An orientation to the hospital's facilities such as the emergency exits and library.

Interns shall also be oriented to the hospital's:

- Policies and procedures
- Infection control
- Electronic medical records
- Assessment and reassessment paper or electronic forms used
- Available nutritional supplements at the facility
- Method of patient care at the current hospital
- Environmental safety and emergency plans:
  - Firefighting and evacuation plan
  - Disaster drill plan
  - Community hazard and occupational threats

## Food service

Interns will gain experience in systems related to food:

- Production
- Distribution
- Service operations
- Maintenance
- Sanitation of the food service facility
- Food safety procedures
- Managing human resources
- Quality assurance and continuous quality improvement

They will also experience the menu development process and enteral feeding preparations.

## Intensive Care Unit

In intensive care unit (ICU) the intern will be exposed to a broad range of critical care issues and have the opportunity to improve their skills as a dietician caring for critically ill patients.

There is a marvelous amount of information to be learned and experience to be gained while in the ICU.

Diseases that frequently treated in an ICU include, but not limited to acute respiratory distress syndrome (ARDS), pneumonia, chronic obstructive pulmonary disease (COPD), respiratory insufficiency/failure with ventilator support, acute myocardial infarction, intracranial hemorrhage or cerebral infarction, burn, trauma, septic shock and post major surgery where patient need intensive monitoring.

### **Objectives:**

Upon the completion of the critical care rotation, the intern will be able to:

1. Understand the pathophysiology and nutrition treatment for a variety of critical illnesses.
2. Identify the appropriate screening tools used in the ICU.
3. Apply full nutritional assessment which will help provide individualized patient care.
4. Calculate energy, protein and fluid needs of critical ill patients.
5. Apply Curreri formula to get the energy requirement for burn patients.

6. Establish an appropriate nutrition treatment plan for critical ill patients.
7. Determine the appropriate timing and route of nutrition support for critically ill patients.
8. Select the appropriate formula type and rate used for enteral feeding.
9. Outline strategies for minimizing and treating gastrointestinal complications in patients receiving enteral nutrition.
10. Understand the interactions between feeding formulation and drugs.
11. Understand how overfeeding hinders ventilator weaning for patients with pulmonary failure.
12. Follow critical care protocols in performing nutrition care.
13. Understand the vital role of the dietitian during multidisciplinary team rotations.
14. Communicate appropriately with the critical care team.

## Surgical Unit

Students will be active members of the surgical nutrition team, where they will participate in nutritional assessments and planning. The intern will be exposed to different surgical cases including bariatric surgery, laparoscopic surgeries, gastrectomy ..etc.

### Objectives:

Upon the completion of the surgical unit rotation, the intern will be able to:

1. Select the applicable screening tools.
2. Apply full nutritional assessment which will help provide individualized patient care.
3. Calculate calorie, protein and fluid requirements.
4. Describe a perioperative process improvement including nutrition to optimize the elective surgical patient
5. Identify the importance of early feeding and avoid long nil per os (NPO).
6. Plan a diet pre and post-surgery.
7. Identify the timing of introduction of solid foods after surgery.
8. Evaluate the patient's condition and outcome.
9. Identify patients who need nutrition support.
10. Recognize complications associated with enteral nutrition and strategies to manage them.
11. Calculate a parenteral nutrition prescription/order sample.
12. Provide information to patients and their families before discharge.



## **Medical Unit**

### **(Gastrointestinal Tract)**

Nutrition therapy is essential in the prevention and treatment of malnutrition and deficiencies that can develop from a gastrointestinal (GI) tract disorder. Diet and lifestyle modifications can improve a patient's quality of life by alleviating GI symptoms. During the training period, the intern will be exposed to different GI diseases such as celiac disease, crohns disease, ulcerative colitis gastroesophageal reflux disease (GERD), peptic ulcer .. etc

#### **Objectives:**

Upon the completion of the medical unit "GI tract" rotation, the intern will be able to:

1. Understand the pathophysiology and nutrition treatment for a variety of gastrointestinal diseases.
2. Identify factors that cause malabsorption.
3. Correct the deficiencies caused by maldigestion, malabsorption or both.
4. Alleviate and treat the symptoms associated with GI tract (vomiting, constipation, steatorrhea).
5. Design appropriate medical nutrition therapy for upper and lower GI tract diseases.
6. Apply full nutritional assessment which will help provide individualized patient care.

7. Calculate energy, protein and fluid needs.
8. Understand the phases of dysphagia diet.
9. Evaluate patient's condition and outcome.
10. Outline appropriate indications of enteral nutrition and parenteral nutrition support in many of GI tract conditions.
11. Recognize complications associated with enteral nutrition and strategies to manage them.
12. Calculate parenteral nutrition prescription/order sample.
13. Provide information to patients and families before discharge.

## **Medical Unit (Hepatobiliary)**

Hepatobiliary disorders are that affect the liver, bile ducts, and gallbladder. Representative examples include hepatitis, cirrhosis, cholecystitis choledocholithiasis .. etc. Nutrition therapy plays a vital role in many of the hepatobiliary disorders and conditions associated with liver diseases such as ascites.

### **Objectives:**

Upon the completion of the medical unit “hepatobiliary” rotation, the intern will be able to:

1. Understand the pathophysiology and nutrition treatment for a variety of hepatobiliary diseases.
2. Apply full nutritional assessment which will help provide individualized patient care.
3. Use dry weight instead of actual weight in specific cases.
4. Determine the energy, protein, and fluid requirements for patients with both acute and chronic liver diseases.
5. Calculate calorie, protein and fluid requirement for gallbladder diseases.
6. Design appropriate medical nutrition therapy.
7. Evaluate patient’s condition and outcome.
8. Provide information to patients and families before discharge.

## Medical Unit

### (Diabetes Mellitus and Pancreatic Diseases)

The pancreas plays an essential role in the human body. The pancreas has two main functions: an exocrine function that helps in digestion and an endocrine function that regulates blood sugar. The intern will be exposed to different diseases including diabetes mellitus, acute and chronic pancreatitis. Lifestyle intervention including nutrition therapy remains a foundational element in the management of diabetes.

#### Objectives:

Upon the completion of the medical unit “diabetes mellitus and pancreatic diseases” rotation, the intern will be able to:

1. Understand the pathophysiology and nutrition treatment for pancreatic diseases and diabetes mellitus.
2. Apply full nutritional assessment which will help provide individualized care.
3. Design appropriate medical nutrition therapy.
4. Calculate calorie, protein and fluid requirement.
5. Understand the concept of carbohydrate counting.
6. Calculate the carbohydrates requirement for diabetic patients.
7. Identify patients who need nutrition support.
8. Recognize protocols or algorithms used when using insulin therapy.
9. Plan an intervention for managing hyperglycemia and hypoglycemia
10. Evaluate patient’s condition and outcome.
11. Provide information to patients and families before discharge.

## Medical Unit

### (Pulmonary Diseases)

Nutritional well-being is necessary for the formation, development, growth, maturity, and protection of healthy lungs and associated processes.

#### Objectives:

Upon the completion of the medical unit “pulmonary diseases” rotation, the intern will be able to:

1. Understand the pathophysiology and nutrition treatment for pulmonary disease.
2. Apply full nutritional assessment which will help provide individualized patient care.
3. To meet the high nutritional needs of patients due to the increased energy expenditure.
4. Determine the protein requirements.
5. To assess the need for fluid restriction.
6. To help reduce risk of malnutrition.
7. To assess the individual need for oral nutritional supplements.
8. Evaluate patient’s condition and outcome.
9. Provide information to patients and families before discharge.

## Renal Disorders and Dialysis Unit

The intern will be exposed to acute and chronic renal diseases. Nutrition plays a vital role in the management of all stages of renal diseases and pre, during and post dialysis.

### Objectives:

Upon the completion of the dialysis unit rotation, the intern will be able to:

1. Understand the pathophysiology and nutrition treatment for renal disease.
2. Apply full nutritional assessment which will help provide individualized patient care.
3. Design appropriate medical nutrition therapy.
4. Calculate calorie, protein and fluid requirements.
5. Educate the patients in the appropriate amount of protein, phosphorus, potassium and fluid intake.
6. Outline the importance of nutrition in the prevention and treatment of renal diseases.
7. Describe the different forms of renal replacement therapy and identify nutritional implications of each.
8. Evaluate patient's condition and outcome.
9. Provide information to patients and families before discharge.

## Cardiovascular Diseases (CVD) Unit

Cardiovascular disease is a group of connected diseases most of which nutrition plays an important role in their management. Medical nutrition therapy in CVD can help prevent disease progression, and improve its management, overall health and quality of life.

### Objectives:

Upon the completion of the cardiovascular unit rotation, the intern will be able to:

1. Understand the pathophysiology and nutrition treatment for CVD.
2. Apply full nutritional assessment which will help provide individualized patient care.
3. To assess the need for fluid restriction.
4. To monitor related laboratory values (e.g. lipid profile) and develop an intervention that will help in their control.
5. To determine the modifiable risk factors and address them including poor dietary habits, overweight or obesity, physical inactivity.
6. Evaluate patient's condition and outcome.
7. Provide information to patients and families before discharge.

## Oncology and Hematology Unit

The goal of cancer treatment is to cure, control or palliate. Nutrition plays a major role in the management of cancers.

### Objectives:

Upon the completion of the oncology unit rotation, the intern will be able to:

1. Apply full nutritional assessment which will help provide individualized patient care.
2. To accurately determine nutritional needs including energy, protein, and fluids requirements.
3. To assess the individual need for oral nutritional supplements.
4. To understand the effect of different cancer treatments and provide solutions for often accompanying symptoms such as nausea and vomiting.
5. To prevent/ manage malnutrition, anorexia, and cancer cachexia.
6. Evaluate patient's condition and outcome.
7. Provide information to patients and families before discharge.



It is also important for dietitians to understand the countless terms related to blood disorders and their nutritional management.

**Objectives:**

Upon the completion of the hematology unit rotation, the intern will be able to:

1. Apply full nutritional assessment which will help provide individualized patient care.
2. To understand the different types of anemias and assess energy, protein and vitamin and mineral needs according to the type of anemia.
3. To ensure that individuals follow a healthy balanced diet by ensuring the adequate intake of certain nutrients including iron, folic acid, vitamin B12.
4. Evaluate patient's condition and outcome.
5. Provide information to patients and families before discharge

## Food Allergies and Intolerances

Adverse reactions to foods are of higher prevalence than in the past. Modern diet and environmental factors interacting with genetic predisposition have been linked to the rise of adverse reactions to foods along as the parallel rise in other chronic conditions such as asthma and autoimmune diseases.

### Objectives:

Upon the completion of the rotation, the intern will be able to:

1. To obtain a thorough assessment with a detailed food history to determine any possible reaction- causing foods.
2. To provide food allergen or intolerable food substitutions to maintain adequate nutrition and reduce the risk of malnutrition.
3. To clarify foods that are allowed and those that should be avoided for patients with different conditions.
4. Evaluate patient's condition and outcome.
5. Provide information to patients and families before discharge.

## Pediatric/Neonatal Unit

Interns will apply their knowledge about pediatric and neonatal stages. They will rotate in general pediatric wards, surgical wards, intensive care units (PICU and NICU).

### Objectives:

Upon the completion of the pediatric/neonatal units rotation, the intern will be able to:

1. Understand the pathophysiology and treatment for different pediatric/neonatal diseases.
2. Apply full nutritional assessment which will help provide individualized patient care.
3. Calculate calorie, protein and fluid requirement for each stage.
4. Plot different growth charts.
5. Provide information to patients and their families before discharge.
6. Calculate a sample parenteral nutrition prescription/order.
7. Select the appropriate formula type and rate used for enteral feeding.
8. Outline strategies for minimizing and treating gastrointestinal complications in patients receiving enteral nutrition.
9. Evaluate patient's condition and outcome.
10. Provide information to patients and families before discharge.

## Genetic Metabolic Disorders

Genetic metabolic disorders include but are not limited to maple syrup urine diseases (MSUD), phenylketonuria (PKU).

Treatment usually involves medical nutrition therapy along with medications that are specific for each disorder.

### Objectives:

Upon the completion of the genetic metabolic disorder unit rotation, the intern will be able to:

1. Understand the pathophysiology and treatment for different genetic metabolic disorders.
2. Apply full nutritional assessment which will help provide individualized patient care.
3. To maintain the biochemical balance for the effected pathway.
4. To provide adequate nutrition needed for growth and development.
5. Evaluate patient's condition and outcome.
6. Provide information to patients and families before discharge.

## Geriatric and Long-term Unit

Nutrition's focus is on health promotion, risk reduction and disease prevention to help maintain quality of life. Preventive measures include primary prevention which pairs healthy eating with physical activity, secondary prevention which targets risk reduction and slowing the progression of chronic diseases, tertiary prevention includes case management and discharge planning which often includes chewing and appetite issues, modified diets and functional limitations.

### Objectives:

Upon the completion of the geriatric and long term unit rotation, the intern will be able to:

1. Apply full nutritional assessment which will help provide individualized patient care.
2. To accurately determine nutritional needs including energy, protein, and fluids requirements.
3. To define the appropriate food textures based on chewing or/and swallowing difficulties if any are present.
4. To prevent/ treat obesity, underweight and malnutrition.
5. To assess the individual need for oral nutritional supplements.
6. To help prevent/ treat pressure ulcers through adequate nutritional delivery by providing the adequate energy, protein, fluids and certain vitamins and minerals.
7. Evaluate patient's condition and outcome.

## Outpatient Clinics

Person's awareness of needed change and motivation are key factors for nutrition behavior change. Nutrition education and nutrition counseling both help provide information and motivation.

### Objectives:

Upon the completion of the outpatient rotation, the intern will be able to:

1. Apply full nutritional assessment which will help provide individualized patient care.
2. To develop effective nutrition education and counseling skills.
3. To address factors that are affecting the ability to change.
4. To understand and practice cultural competencies.
5. To use efficient communication skills.
6. To be exposed to different conditions including weight management, hyperlipidemia, hyperglycemia, hypertension, allergies and intolerances and others.

# Appendix

## Appendix 1: Internship Learning Outcomes

The intern, supervisor and faculty member must be aware of the following internship learning outcomes. The interns' performance is assessed based on these LOs.

By the end of the internship, the interns are expected to achieve the following learning outcome.

Internship Learning Outcome		Aligned Program Learning Outcome
<b>Knowledge</b>		
1.1	Recall the principles and steps of nutrition care for different diseases among individuals.	Knowledge 1.3
1.2	Outline the enteral and parenteral nutrition for different diseases, and the major formulas needed according to the patient's status.	Knowledge 1.3
<b>Skills</b>		
2.1	Develop a complete nutritional assessment plan for nutritional care of different diseases.	Skills 2.1
2.2	Apply evident-based client-centered intervention using critical thinking and professional judgment.	Skills 2.2
2.3	Calculate the nutritional requirements of patients.	Skills 2.5
<b>Competences</b>		
3.1	Use standardized professional language and ethical attitude for medical team and patients.	Competences 3.1
3.2	Demonstrate active participation and contribution in group settings.	Competences 3.1



## Appendix 2: Assessment of Internship Learning Outcomes' Knowledge and Achievement

**(Filled by the Intern)**

By the end of this internship, interns are expected to achieve the following intended internship learning outcomes (ILOs). Please read, rate and sign your knowledge (Pre internship) of each ILO listed below.

**5 = Excellent; 4 = Good; 3 = Average; 2 = Fair; 1 = Poor**

Upon completing the internship, you will rate your achievement (Post-internship), report any difficulties in ILOs' achievement and provide any suggestion for improvement.

Internship Learning Outcomes		ILO Knowledge (Pre - Internship)	ILO Achievement (Post- Internship)	Difficulties & Suggestions (Post- Internship)
<b>Knowledge</b>				
1.1	Recall the principles and steps of nutrition care for different diseases among individuals.			
1.2	Outline the enteral and parenteral nutrition for different diseases, and the major formulas needed according to the patient's status.			
<b>Skills</b>				
2.1	Develop a complete nutritional assessment plan for nutritional care of different diseases.			
2.2	Apply evident-based client-centered intervention using critical thinking and professional judgment.			
2.3	Calculate the nutritional requirements of patients.			
<b>Competences</b>				
3.1	Use standardized professional language and ethical attitude for medical team and patients.			
3.2	Demonstrate active participation and contribution in group settings.			
<i>I have read and rated my current knowledge of the intended internship learning outcomes. Upon completing the course, I will rate my achievement of the same ILOs.</i>		Intern name Signature & Date		

Prepared by CND Quality & Accreditation Committee.

## Appendix 3: Attendance Sheet

<b>Intern name:</b>	
<b>Academic ID:</b>	
<b>Hospital name:</b>	
<b>Rotation no.:</b>	

Week no.	Date	Time In	Time Out	Signature of Intern	Signature of preceptor
1					
2					
3					
4					
5					

<b>6</b>					
<b>7</b>					
<b>8</b>					
<b>9</b>					
<b>10</b>					
<b>11</b>					
<b>12</b>					
<b>13</b>					

14					
15					
16					

## Appendix 4: Weekly Log Form

Name: \_\_\_\_\_ Week of Internship: \_\_\_\_\_

Day/Date	Summary of Activities	Hours
Sunday		
Monday		
Tuesday		
Wednesday		
Thursday		
<b>Weekly Hours</b>		
<b>Total Hours</b>		

## Appendix 5: Leave Request Form

**Filled by the intern:**

Intern name:			
Academic ID:			
Submitted date:			
leave duration:	From:		
	To:		
Specific reasoning:			
Hospital:	Hospital name:		
	Person in charge:	Name:	
		Signature:	

**Filled by the University:**

Intern to compensate leave:    Yes             No

Revised

Approved

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Clinical nutrition internship and  
training coordinator, IAU

Vice dean for training affairs, IAU

## Appendix 6: Educational Leave Form

**(Filled by the Intern)**

<b>Intern name:</b>	
<b>Academic ID:</b>	
<b>Training site:</b>	
<b>Request date:</b>	
<b>Title of the activity:</b>	
<b>Place of the activity:</b>	
<b>Intern remarks and signature:</b>	

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**Approval of Internship and training  
coordinator, IAU**

**Approval of Internship coordinator,  
hospital**

- Request should be submitted two weeks before activity date.
  - Each intern is allowed 3 educational leaves per year (1 leave per rotation).
  - Copy of educational activity certificate should be submitted to the department.
- Otherwise, it will be considered as absent without excuse.

## Appendix 7: Warning Letter Form

<b>Date:</b>	
<b>Intern name:</b>	
<b>Academic ID:</b>	
<b>Training site:</b>	
<b>Reason for warning:</b>	<input type="checkbox"/> <b>Not adhering to duty hours</b>
	<input type="checkbox"/> <b>Going out without prior approval</b>
	<input type="checkbox"/> <b>Not adhering to dress code</b>
	<input type="checkbox"/> <b>Unprofessional attitude or behavior</b>
	<input type="checkbox"/> <b>Other:</b>

- After receiving three warning letters, this will result in one day absent to be compensated.
- If you still not adhere to the above, you will be subjected to be referred to disciplinary committee or redo the internship rotation.

\_\_\_\_\_

**Chairman of the  
department of  
clinical nutrition,  
IAU**

**Internship and  
training  
coordinator, IAU**

**Chairman of  
the department  
of clinical  
nutrition,  
hospital**

**Internship  
coordinator,  
hospital**



## Appendix 8: Internship Performance Evaluation Form

**(Filled by the Clinical Instructor)**

<b>Intern name:</b>	
<b>Academic ID:</b>	
<b>Training institution:</b>	
<b>Date:</b>	<b>From:</b>
	<b>To:</b>
<b>Preceptor:</b>	
<b>Faculty supervisor:</b>	

**Directions:**

The internship performance evaluation form provides a set of behavioral criteria as learning outcomes expected of the intern. The set of criterion is further categorized into:

1. Knowledge of work.
2. Working abilities.
3. General conduct.

It is expected from the preceptor to evaluate the intern performance in the mark column by **numerical scale**, according to the grading scheme illustrated below the table.

The form is done once and only at the end of the prescribed internship-training period and would therefore reflect the overall performance of the intern being evaluated.

This form should be **CONFIDENTIAL** and must be returned on a sealed official envelope of the department of clinical nutrition.

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**Signature of chairman/head clinical nutrition  
department/services**

**Date**

Performance objectives		Marks	Comments
<b>1. Knowledge of work</b>			
1.1	Ability to use background knowledge of clinical nutrition theories/principles and clinical skills in performing tasks.		
1.2	Desire to learn beyond the scope of daily, routine and prescribed clinical nutrition work.		
1.3	Ability to effectively document and communicate verbally and in writing.		
1.4	Interest and receptive attitude towards new ideas and information.		
1.5	Preparedness to adjust and cope with new work methods and conditions.		
1.6	Ability to make use of systematic processes in planning and organizing his/her work.		
1.7	Competent ability to make use of guidelines and protocols in performing clinical nutrition modalities.		
<b>2. Working abilities</b>			
2.1	Initiative to accept the maximum responsibility for his/her work and to volunteer for new assignments.		
2.2	Quality of his/her performance in relation to the maximum responsibility of the work assignment.		
2.3	Diligence and efficiency as to the thoroughness and completeness in performing his/her tasks.		
2.4	Success in meeting the requirements with respect to the amount of work within the time allotted.		
2.5	Ability to establish good working relations with members of the health care team and other non-health personnel.		

2.6	Ability to establish rapport and illicit favorable response from clients for the effective delivery of clinical nutrition services.		
<b>3. General conduct</b>			
3.1	Exhibit punctuality and compliance with working hours of the institution.		
3.2	Adheres to departmental policies and procedures in the conduct of clinical nutrition services.		
3.3	Exhibit competent attitude to assure the delivery of quality care to clients.		
3.4	Perceived ability to execute his/her responsibilities as a professional clinical nutrition specialist after the training.		
<b>Average*</b>			

*\*Average: The sum total of all items divided by 17 (the number of items).*

Marks	Level	Grade
90-100	Excellent	A
80-90	Very Good	B
70-80	Good	C
60-70	Pass	D
<60	Fail	F

	Excused	Unexcused
No. of absent days		
No. of make-up days		

**Additional comments on over-all performance:**

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## Appendix 9: Internship Program Survey

**(Filled by the Intern)**

<b>Intern name:</b>	
<b>Academic ID:</b>	
<b>Academic year:</b>	
<b>Training institution:</b>	
<b>Internship period:</b>	<b>From:</b>
	<b>To:</b>

**Please write your answer as ONE NUMBER ONLY, using the following key:**

5= "Strongly agree" means the statement is true all, or almost all of the time, and very well done.  
 4= "Agree" means the statement is true most of the time and fairly well done.  
 3= "True sometimes" means something is done about half the time.  
 2= "Disagree" means something is done poorly, or, usually not done.  
 1= "Strongly disagree" means something is done very badly, or never or very rarely done.

Question	Response
The orientation on internship program offered by the university (or department) was useful.	
The internship assessment method was clearly explained prior to the beginning of the internship.	
I received my official rotation acceptance for internship in a timely manner.	
The hospital provided a useful internship orientation.	
The roles & responsibilities of interns were clearly stated by the hospital.	

I am satisfied with the selected hospitals.	
The internship duration assigned is enough to learn.	
There was periodic hospital supervision for my performance.	
The length of the rotation is sufficient.	
The hospital internship coordinator was reachable.	
The CN internship coordinator was reachable.	
My clinical skills significantly improved as a result of my internship training.	
The trainer spent an appropriate amount of time teaching and stimulated your thinking about the clinical, community or management problems in that setting (depending on the rotation).	
Trainer provided helpful and constructive information and feedback during the week or during a one-on-one meeting at the end of the rotation.	
The trainer served as an effective role model (i.e, exemplified professional behaviours such as appropriate communication, teamwork, respect for interns, punctuality, availability, etc.)	
The internship program covers all aspects of clinical nutrition specialty	
Overall, I was satisfied with internship program.	
<b>Do you have any suggestions for improving the quality of internship training program?</b>	

**Thank you**

## Appendix 10: Case Presentation Rubric

(Filled by the Faculty)

Category	4	3	2	1	Mark
<b>Coverage of all nutrition care process (NCP) steps</b>	90-100% outstanding coverage of NCP steps with all important information	80-90% very good coverage of NCP steps with some important information missing	60-70% fair coverage of NCP steps with incomplete information	< 60% poor coverage of NCP steps with little information	
<b>Organization</b>	information is well organized with clear titles and subheadings	Most of the information is organized with few missing titles or subheadings	information is organized, but most titles or subheadings are missing	information is disorganized with no titles or subheadings	
<b>Layout and design</b>	All of the data is in focus and can be viewed easily	Most of the data is in focus and can be viewed easily	Some of the data is in focus and can be viewed easily	Most of the data is unclear, too small or blurred	
<b>Use of graphics</b>	All of the graphics were related to the case and made it easier to understand	Most of the graphics were related to the case and made it easier to understand	Some of the graphics were related to the case and made it easier to understand	Graphics did not relate to the case	
<b>Presentation</b>	The presentation was in appropriate length. It was	The presentation was in appropriate	The presentation was in appropriate	The presentation was too long or too short. The	

	not too hurried or too slow. The presenter spoke clearly and established eye contact	length. But seemed slightly hurried or too slow. The presenter spoke clearly and established eye contact	length. But hurried or too slow. The presenter spoke clearly some of the time and or established little eye contact	presenter did not speaker clearly and or did not establish eye contact	
<b>Spelling &amp; grammar</b>	No grammatical or spelling errors	1-2 grammatical or spelling errors	3-5 grammatical or spelling errors	>5 grammatical or spelling errors	
<b>Response to questions</b>	Demonstrate full knowledge of the case, explain and elaborate on all questions	Shows appropriate knowledge of the case, explain and elaborate on some questions	Shows ease in answering questions but does not elaborate	Demonstrate little grasp of information, has undeveloped or unclear answers to questions	
<b>Total marks</b>					

**Comments:**

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## Appendix 11: Contacts of Training Affairs at College of Applied Medical Sciences and Clinical Nutrition Department

<b>Vice dean for training affairs: Dr. Omar Abuzaid</b>	Phone 013- 3331266 / 013- 3331206 Email: oiabuzaid@iau.edu.sa
<b>Chairman of clinical nutrition department: Dr. Yasmin Algindan</b>	Phone: 013-3331324 Email: yygindan@iau.edu.sa
<b>Internship and training coordinator: Mrs. Dlayl Almirry</b>	Phone: 013-3331293 dhalmirry@iau.edu.sa
<b>Internship affairs website:</b>	<a href="https://www.iau.edu.sa/en/colleges/college-of-applied-medical-sciences/vice-deanships/vice-deanship-of-training-affairs">https://www.iau.edu.sa/en/colleges/college-of-applied-medical-sciences/vice-deanships/vice-deanship-of-training-affairs</a>
<b>Internship affairs email:</b>	vdtraining.cams@iau.edu.sa
<b>Vice dean for training mailing address:</b>	Vice Dean for Training Affairs College of Applied Medical Sciences Imam Abdulrahman Bin Faisal University. P.O. Box 2435 Dammam 31451





جامعة الإمام عبد الرحمن بن فيصل  
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

وحدة هوية الجامعة Brand Management Unit