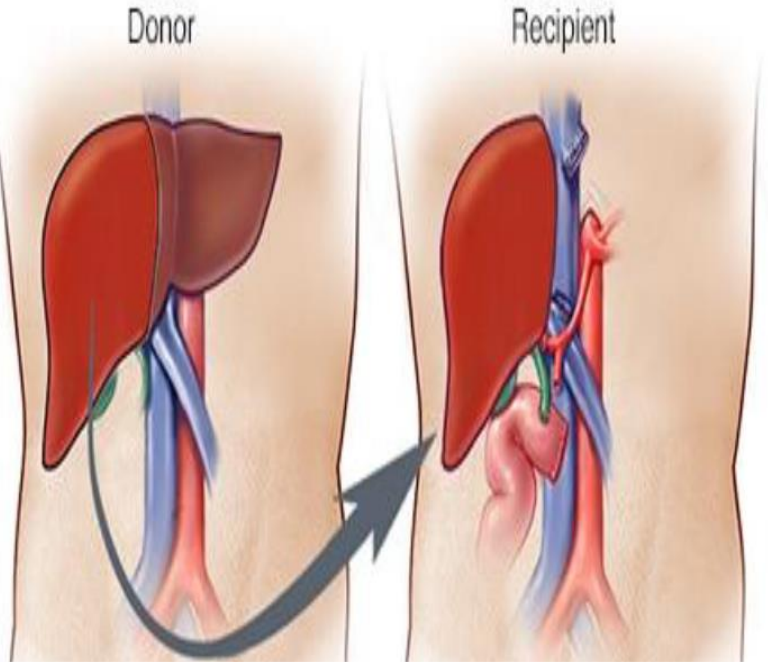
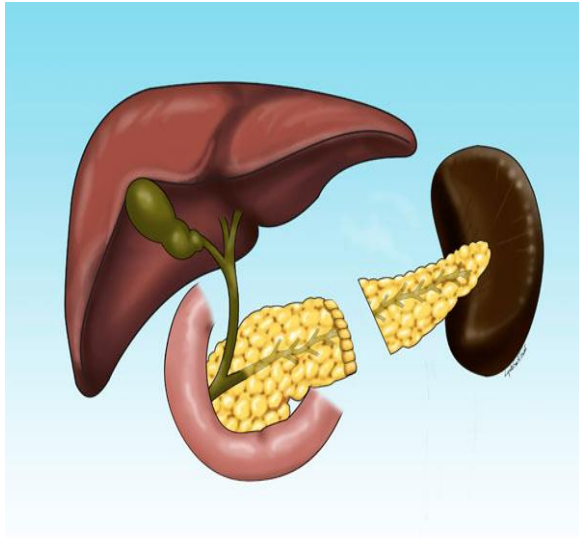


# Professional Diploma in Hepato-Pancreatico-Biliary Surgery Portfolio



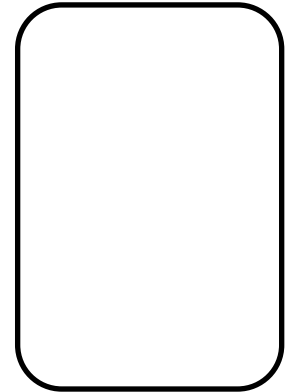
" ملف الإنجاز "

اللازم لحصول المتدرب على دبلومة مهنية فى جراحة الكبد  
والبنكرياس والجهاز المراري  
٢٠٢٠ - ٢٠٢٢

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Personal photo



**Name**.....  
**Date of birth**.....  
**Address**.....  
**Place of work**.....  
**Telephones**..... **Mobile phone(s)**.....  
**E mail**.....

| Name of hospital | Period of work | Hospital director signature |
|------------------|----------------|-----------------------------|
|                  |                |                             |
|                  |                |                             |
|                  |                |                             |
|                  |                |                             |

**Academic Information**

MBBCh...../...../..... University ..... Grade .....  
 MSc..... University..... Grade .....  
 MD degree ..... University .....  
 Others...../...../..... University .....

## Portfolio Appraisal: Documentation of experiences & reflection

### Summary

*This Portfolio will be used for appraisal and review of:*

- Your **progress on the course.**
- Your **attitudes and behavior.**
- It facilitates self-evaluation and review of your professional development which is necessary for a career in medicine.
- It is part of the professional practice of all doctors to keep a portfolio recording their experience and to engage in appraisal.

### Overall Goals

*Your portfolio should help you:*

- Monitor your progress in relation to course objectives.
- Reflects systematically on your progress and development.
- Set future personal development targets.
- Prepare you for the appraisal process.

### \* Aim of the activities book

To provide one source of evidence for the assessment committee that you attained the desired level of competency required to gain the award.

In this book you will document all clinical, academic and other experiences and skills you attained during your training.

## *Sections of the book* *For each module / course / rotation*

You should fill the following sections:-

### *1- Clinical case log*

1- You will first find a list with all required cases in the concerned module and the minimum number of cases you must get exposed to and level of participation you should achieve for each type of cases.

2- You should record all clinical cases in the module and each case should be signed by your trainer.

### *2- Clinical case presentation log*

Record the cases related to the module that you have presented in a seminar of the activity.

### *3- Procedures / operations log*

1- You will find a list of required procedures, diagnostic – therapeutic operations and level of desired performance you should achieve at the end of training.

2- You will find empty tables to write down the procedure, your level of participation and date and signature of supervisor.

### *4- Rotation / attendance proof*

You should have evidence of achievement of the required training hours within each module.

*For the whole program fill the following sections*

1- Academic activities

A- Document all academic activities, e.g. lecture, journal clubs, workshops, conference, services attended. This documentation should include the level of participation "attendance, preparation, presentation,"

2- Academic achievements

A- Document all outcomes you achieved.

## The program aims

- 1-1- To enable candidates to acquire a satisfactory level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of Hepato-pancreatico-biliary Surgery and Liver Transplant and enabling the candidates of making appropriate referrals to a sub-specialist.
- 1-2- Provide candidates with fundamental knowledge and skills of dealing with critically ill patients, with Hepato-pancreatico-biliary Surgery and Liver Transplant fundamentals.
- 1-3- To introduce candidates to the basics of scientific medical research.
- 1-4- Enable candidates to start professional careers as specialists in Egypt, but recognized abroad.
- 1-5- To enable candidates to understand and get the best of published scientific research and do their own.

## Curriculum Structure:

Duration of program 2 years

## Program Structure

### Program Time Table

#### 1- Duration of program 2 years divided into:

- **1<sup>st</sup> Semester: (6 month).**
  - Program-related basic science modules and ILOs+ elective Module.
  - Students are allowed to sit the exams of these modules at the end of the semester.
- **2<sup>nd</sup> Semester: (6 month)**
  - Program-related Preoperative Assessment of Hepato-Pancreatico-Biliary Diseases
  - Students are allowed to sit the exams of these modules at the end of the semester.
- **3<sup>rd</sup> and 4<sup>th</sup> Semesters: (1 year).**
  - Program –related speciality modules and ILOs
  - Students are allowed to sit the exams of these modules at the end each semester.

### Graduations and exams

The students pass if they get 50% from the written exams and 60% from oral and clinical/practical exams of each module and 60% of summation of the written exams, oral and clinical/practical exams of each module.

## Curriculum Structure (modules):

| Code No.   | Module Title   | CP | Student Workload                                     |                      |                      |                  |                       |             |
|--|--|----|--|----------------------|----------------------|------------------|-----------------------|-------------|
|  |  |    | Lecture (1 lecture =3h)                              | Practical (1 day=6h) | Homework/ Assignment | Test Preparation | Other Private study # | Total Hours |
| <b>First semester (30 ECTS)</b>  |  |    |  |                      |                      |                  |                       |             |
| <b>Track 1: Basic sciences (7 modules)</b>   |  |    |  |                      |                      |                  |                       |             |
| 1  | Anatomy and Embryology                                     | 7  | 45   | -                    | 30                   | 105              | 30                    | 210         |
| 2  | Physiology   | 5  | 30   | -                    | -                    | 105              | 15                    | 150         |
| 3  | Pathology  | 5  | 30   | -                    | -                    | 105              | 15                    | 150         |
| 4  | Clinical Pathology and Laboratory Testing                  | 5  | 45   | -                    | 10                   | 95               | -                     | 150         |
| 5  | Statistics and Research methodology                        | 2  | 14   | 20                   | 6                    | 20               | -                     | 60          |
| 6  | Basic Nutrition  | 2  | 24   | 10                   | -                    | 22               | 4                     | 60          |
| 7  | Evidence Based Medicine                                    | c  | 6  | 9                    | 3                    | 9                | 3                     | 30          |
| 8  | Information Technology                                     | 1  | 2  | 22                   | 6                    | -                | -                     | 30          |
| <b>Track2: Elective modules</b>  |  |    |  |                      |                      |                  |                       |             |
| 9  | Elective module  | 2  | <b>Student Workload differ according module type</b> |                      |                      |                  |                       | 60          |
| <b>Second semester (30 ECTS)</b>   |  |    |  |                      |                      |                  |                       |             |
| <b>Track: Preoperative assessment of Hepato-Pancreatico-Biliary Diseases (3 modules)</b>                 |  |    |  |                      |                      |                  |                       |             |
| 1  | General Principles of preoperative care of HPB diseases    | 15 | 135  | 170                  | -                    | 100              | 45                    | 450         |
| 2  | Diagnostic and basic Interventional Radiology              | 10 | 80   | 70                   | -                    | 90               | 60                    | 300         |
| 3  | Therapeutic Modalities in Management of HPB tumors         | 5  | 45   | 15                   | -                    | 50               | 40                    | 150         |
| <b>Third semester (30 ECTS)</b>  |  |    |  |                      |                      |                  |                       |             |
| <b>Track: Operative and Interventional Management of Hepato-Pancreatico-Biliary Diseases (3 modules)</b> |  |    |  |                      |                      |                  |                       |             |
| 1  | Surgical Skills  | 15 | 45   | 200                  | 55                   | 90               | 60                    | 450         |
| 2  | Laparoscopy  | 10 | 30   | 150                  | 30                   | 60               | 30                    | 300         |
| 3  | Gastrointestinal Endoscopy                                 | 5  | 15   | 90                   | -                    | 30               | 15                    | 150         |
| <b>Fourth semester (30 ECTS)</b>   |  |    |  |                      |                      |                  |                       |             |
| <b>Track: Liver Transplantation (3 modules)</b>  |  |    |  |                      |                      |                  |                       |             |
| 1  | Basic Knowledge and introduction for organ transplantation | 5  | 45   | 45                   | 10                   | 30               | 20                    | 150         |
| 2  | Preoperative   | 10 | 70   | 110                  | 30                   | 60               | 30                    | 300         |

|   |  |    |    |     |    |    |    |     |
|---|--|----|----|-----|----|----|----|-----|
|   | Management and Assessment                |    |    |     |    |    |    |     |
| 3 | Surgical Skills of liver transplantation | 15 | 45 | 200 | 55 | 90 | 60 | 450 |

**Student work load calculation:** One CP = 30 working hours (contact and non-contact).

One lecture = 3 hours = 1/10 CP [1 CP = 10 lectures]

One practical day = 6 hours = 1/5 CP [1 CP = 5 practice days]

One day on-duty = 10 hours = 1/3 CP [1 CP = 3 on-duty days]

# **Student private study** includes: Reports, Seminars, Projects, Workshops, Conferences, Fieldworks, Hospital works, Journal Club, portfolio, Video-conferences, Internet Activities.

1 active seminar/workshop = 1 CP = 30 h

1 passive attendance seminar /work shop = 1/5 CP= 6 h

1 passive attendance in specialized conference = 1/2 CP= 15 h



**Weighting of assessments:**

| Modules   | Module Code | Written Exam  | Degrees    |                                     |          | Total |
|---|-------------|---|------------|-------------------------------------|----------|-------|
|   |             |   | Degree     |                                     |          |       |
|   |             |   | Oral Exam* | Practical Exam/Portfolio/Attendance | Clinical |       |
| <b>First Semester</b>   |             |   |            |                                     |          |       |
| 1. Anatomy and Embryology   | HBS401      | 70  | 60         | 10 for Portfolio                    | 140      |       |
| 2. Physiology   | HBS403      | 50  | 40         | 10 for Portfolio                    | 100      |       |
| 3. Pathology  | HBS405      | 50  | 40         | 10 for Portfolio                    | 100      |       |
| 4. Clinical Pathology and Laboratory Testing                                      | HBS431      | 50  | 40         | 10 for Portfolio                    | 100      |       |
| 5. Statistics and Research Methodology.*  | HBS411A#§   | 30  | -          | 10                                  | 40       |       |
| 6. Basic Nutrition  | HBS409A     | 25  |            | 15                                  | 40       |       |
| 7. Evidence Based Medicine*   | EDC400A     | 10  | -          | 10                                  | 20       |       |
| 8. Information Technology   | HBS411B§    | -   | -          | 20                                  | 20       |       |
| 9. Elective modules*  |             | Distribution of the degree according to module type |            |                                     | 40       |       |
| <b>Second Semester</b>  |             |   |            |                                     |          |       |
| 1. General Principles of preoperative care of Hepato-Pancreatico-Biliary diseases | HBS411C     | 120   | 90         | 90                                  | 300      |       |
| 2. Diagnostic and basic interventional radiology                                  | HBS428      | 80  | 60         | 60                                  | 200      |       |
| 3. Therapeutic modalities in management of Hepato-Pancreatico-Biliary tumors      | HBS427      | 40  | 30         | 30                                  | 100      |       |
| <b>Third Semester</b>   |             |   |            |                                     |          |       |
| 1. Surgical Skills  | HBS411D     | 120   | 90         | 90                                  | 300      |       |
| 2. Laparoscopy  | HBS411E     | 80  | 60         | 60                                  | 200      |       |
| 3. Gastrointestinal Endoscopy   | HBS411F#    | 40  | 30         | 30                                  | 100      |       |
|   |             | Assignment  |            |                                     |          |       |
| <b>Fourth Semester</b>  |             |   |            |                                     |          |       |
| 1. Basic knowledge and introduction for organ transplantation                     | HBS411G     | 40  | 30         | 30                                  | 100      |       |
| 2. Preoperative management and assessment   | HBS411H     | 80  | 60         | 60                                  | 200      |       |
| 3. Surgical Skills of liver transplantation                                       | HBS411 I    | 120   | 90         | 90                                  | 300      |       |

\* 25% of the oral exam for assessment of Portfolio in 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> semesters.

\* Evidence based medicine, Information Technology, marks are calculated on attendance and active participation along with practical exams according to module content.

\*10 marks for portfolio are added to the 1<sup>st</sup> four basic sciences module

# First semester Modules

## Basic Science Track

1. Anatomy & Embryology
2. Physiology
3. Pathology
4. Clinical Pathology and Laboratory Testing
5. Statistics and Research Methodology
6. Basic Nutrition
7. Evidence Based Medicine

## Elective Modules Track

### One of the following

1. Medical Ethics
2. Hospital Administration
3. Infection Control

## Anatomy Module (I-1)

| Credit Points      | Hours for student Workload/Semester |                        |              |                     |  |                |
|--------------------|-------------------------------------|------------------------|--------------|---------------------|--|----------------|
|                    | Lecture                             | Practical/<br>Clinical | Homework     | Test<br>Preparation | Other<br>Private<br>study<br>(Seminar) | Total<br>Hours |
| <b>7 CP</b>        | <b>45 H</b>                         | -                      | <b>30 H</b>  | <b>105 H</b>        | <b>30 H</b>                            | <b>210 H</b>   |
| <b>Percentage%</b> | <b>21.4</b>                         | -                      | <b>14.3%</b> | <b>50%</b>          | <b>14.3%</b>                           | <b>100</b>     |

| Name of the module | Credit points | Responsible department                                     | Attendance                      | Percentage of Achieved points       |
|--------------------|---------------|--|---------------------------------|-------------------------------------|
| Anatomy            | 1.5           | Anatomy Department in conjunction with diploma coordinator | 45 hours                        | 21.4%                               |
|                    | 1             |  | 30 H<br>- Seminar               | 14.3%                               |
| Student signature  |               |  | Principle coordinator signature | Program Academic Director signature |
|                    |               |  |                                 |                                     |



## Physiology Module (I-2)

| Credit Points           | Hours for student Workload/Semester |                        |          |                     |   |                |
|-------------------------|-------------------------------------|------------------------|----------|---------------------|---|----------------|
|                         | Lecture                             | Practical/<br>Clinical | Homework | Test<br>Preparation | Other Private<br>study<br>(Active<br>participation<br>in Seminar) | Total<br>Hours |
| <b>5 CP</b>             | <b>30 H</b>                         | -                      | -        | <b>105 H</b>        | <b>15 H</b>   | <b>150 H</b>   |
| <b>Percentage<br/>%</b> | <b>20%</b>                          | -                      | -        | <b>70%</b>          | <b>10%</b>  | <b>100</b>     |

| Name of the module | Credit points | Responsible department  | Attendance                      | Percentage of Achieved points       |
|--------------------|---------------|---|---------------------------------|-------------------------------------|
| Physiology         | 1             | Physiology Department in conjunction with Diploma coordinators. | 30 hours                        | 20%                                 |
|                    | 0.5           |   | 15 hours                        | 10%                                 |
| Student signature  |               |   | Principle coordinator signature | Program Academic Director signature |
|                    |               |   |                                 |                                     |

### Physiology (Lectures)

| Date | Attendance | Topic | Signature |
|------|------------|-------|-----------|
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |
|      |            |       |           |

### Seminars log

| Date | ** Your role | Topic | Signature |
|------|--------------|-------|-----------|
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |
|      |              |       |           |

\*\* Your role:-

- A- Attendance
- B- Organization
- C- Presentation

## Pathology Module (I-3)

| Credit Points | Hours for student Workload/Semester |                      |          |                  |  |             |
|---------------|-------------------------------------|----------------------|----------|------------------|--|-------------|
|               | Lecture                             | Practical / Clinical | Homework | Test Preparation | Other Private study (Active participation in Seminar ) | Total Hours |
| 5 CP          | 30                                  | -                    | -        | 105              | 15   | 150         |
| Percentage%   | 20%                                 | -                    | -        | 70%              | 10%  | 100         |



| Name of the module | Credit points | Responsible department                                       | Attendance   | Percentage of Achieved points       |
|--------------------|---------------|--|--|-------------------------------------|
| Pathology          | 1             | Pathology Department in conjunction with diploma coordinator | 30 hours<br>- <b>Describe the Principles of Pathology of:</b><br>- Hepatitis (acute and chronic)<br>- Liver cirrhosis<br>- Pancreatitis (acute and chronic)<br>- Pancreatic tumors<br>- Liver tumours .<br>- Liver cysts (parasitic and non parasitic)<br>- Cholecystitis (acute and chronic)<br>- GB tumours.<br>- Biliary tract disorders.<br>- Biliary tract tumours. | 20%                                 |
|                    | 0.5           |  | 15 hours<br>- Seminar  | 10%                                 |
| Student signature  |               |  | Principle coordinator signature  | Program Academic Director signature |
|                    |               |  |  |                                     |



## Clinical Pathology and Lab testing Module (I-4)

| Credit Points | Hours for student Workload/Semester |                        |          |                     |                           | Total Hours |
|---------------|-------------------------------------|------------------------|----------|---------------------|---------------------------|-------------|
|               | Lecture                             | Practical/<br>Clinical | Homework | Test<br>Preparation | Other<br>Private<br>study |             |
| 3 CP          | 45 H                                | -                      | 10 H     | 95 H                | -                         | 150 H       |
| Percentage%   | 30%                                 | -                      | 6.7%     | 63.3%               | -                         | 100%        |

| Name of the module                      | Credit points | Responsible department  | Attendance                      | Percentage of Achieved points       |
|---|---------------|---|---------------------------------|-------------------------------------|
| Clinical Pathology & Laboratory testing | 0.9           | Clinical Pathology Department in conjunction with diploma coordinator | 45 hours                        | 30%                                 |
|   | 0.3           |   | 10 hours                        | 6.7%                                |
| Student signature                       |               |   | Principle coordinator Signature | Program Academic Director signature |
|   |               |   |                                 |                                     |



## Statistics and Research Methodology (I-5)

| Credit Points | Hours for student Workload/Semester |                      |          |                  |                     |             |
|---------------|-------------------------------------|----------------------|----------|------------------|---------------------|-------------|
|               | Lecture                             | Practical / Clinical | Homework | Test Preparation | Other Private study | Total Hours |
| 1 CP          | 14 hours<br>(7 lectures)            | 20 hours             | 6 H      | 20 H             | -                   | 60 H        |
| Percentage %  | 23.3%                               | 33.3%                | 10%      | 33.3%            |                     | 100%        |

| Name of the module                  | Credit points | Responsible department   | Attendance  | Percentage of Achieved points       |
|-------------------------------------|---------------|--|---|-------------------------------------|
| Statistics and Research Methodology | 0.25          | Community Medicine Department & Statistic and Insurance Department | 14 hours<br>(7 lectures)<br><ul style="list-style-type: none"> <li>- Basic statistical definitions in medicine</li> <li>- Define statistical population – samples.</li> <li>- A brief introduction to SPSS</li> <li>- List types of random samples.</li> <li>- Define and list types of variables.</li> <li>- Describe measurements levels.</li> <li>- Recognize types of research questions.</li> <li>- Univariate Statistical methods</li> <li>- Multivariate statistical Methods for Associational research questions</li> </ul> | 23.3%                               |
|                                     | 0.3           |  | 20 hours<br>Practical<br><ul style="list-style-type: none"> <li>- Use statistical package to manipulate and analyze medical data.</li> <li>- Use sampling software to calculate and select the appropriate sample size.</li> <li>- Apply the scientific approach to select the appropriate statistical method.</li> </ul>   | 33.3%                               |
|                                     | 0.1           |  | 6 hours<br>Homework   | 10%                                 |
| Student signature                   |               |  | Principle coordinator Signature   | Program Academic Director signature |
|                                     |               |  |   |                                     |







## Basic Nutrition Module (I-6)

| Credit Points | Hours for student Workload/Semester |                        |                     |  |                |
|---------------|-------------------------------------|------------------------|---------------------|--|----------------|
|               | Lecture                             | Practical/<br>Clinical | Test<br>Preparation | Journal Club<br>(Critical Appraisal<br>of scientific articles<br>related to nutrition) | Total<br>Hours |
| 2 CP          | 24 hours<br>(12<br>lectures)        | 10 hours               | 22 hours            | 4 hours  | 60<br>hours    |
| Percentage %  | 40 %                                | 16.7%                  | 36.7%               | 6.6%   | 100%           |

| Name of the module | Credit points | Responsible department  | Attendance   | Percentage of Achieved points       |
|--------------------|---------------|---|--|-------------------------------------|
| Basic nutrition    | 0.8           | Staff members of Public Health and Community Medicine Department in conjunction with Surgery Department | 24 hours (12 lectures)<br>- Effect of chronic liver diseases on nutritional status and metabolism<br>- Assessment of nutritional status in hepatic patients<br>- Applying knowledge to calculate nutrients' requirements for hepatic patients<br>- Nutritional therapy in NAFLD/NASH<br>- Nutrition in acute liver disease<br>- Nutritional guidelines in liver injuries<br>- Nutrition in compensated liver cirrhosis and End-Stage Liver Disease.<br>- Applied nutrition in patients with pancreatitis (both acute and chronic)<br>- Nutrition in Gallbladder Diseases (stone & Cholestasis)<br>- Nutritional needs and interpretation in surgical patients (perioperative and postoperative) in hepato-biliary system<br>- Role of parenteral nutrition in hepatic patients | 40 %                                |
|                    | 0.33          |   | 10 hours<br>-Obtain proper history and examine patients in caring and respectful behaviors.<br>- Apply practical skills in the assessment of nutritional status of patients with hepatic-biliary pancreatic diseases.<br>- Apply evidence based knowledge to calculate total energy requirements of hepatic patients based on their physiological & nutritional states.<br>- Apply different nutrition protocols for short and long term nutrition management of different hepatic-biliary pancreatic diseases.  | 16.7%                               |
|                    | 0.13          |   | 4 hours (Journal club)   | 6.6%                                |
| Student signature  |               |   | Principle coordinator Signature  | Program Academic Director signature |
|                    |               |   |  |                                     |





## Evidence based medicine (I-7)

| Credit Points | Hours for student Workload/Semester |                        |                     |                               |                |
|---------------|-------------------------------------|------------------------|---------------------|-------------------------------|----------------|
|               | Lecture                             | Practical/<br>Clinical | Test<br>Preparation | Journal<br>club<br>Assignment | Total<br>Hours |
| 1CP           | 6 hours<br>(6 lectures)             | 9 hours                | 9 hours             | 6 hours                       | 30<br>hours    |
| Percentage %  | 20 %                                | 30                     | 30%                 | 20%                           | 100%           |

| Name of the module      | Credit points | Responsible department         | Attendance   | Percentage of Achieved points       |
|-------------------------|---------------|--------------------------------|--|-------------------------------------|
| Evidence based medicine | 0.2           | - Education development center | 6 hours (6 lectures)<br>- Introduction to Evidence-based Medicine.<br>- Posing questions and running searches in PubMed.<br>- How to search the clinical evidence<br>- How to appraise evidence about interventions<br>- How to appraise evidence on harm<br>- How to appraise evidence about diagnostic tests<br>- How to assess evidence from systematic reviews | 20 %                                |
|                         | 0.3           |                                | 9 hours (Practical)<br>- Formulate clinical questions and make them answerable. in a scientific way.<br>- Search for and select relevant literature for scrutinizing and critical appraisal.<br>- Evaluate simple numerical results.<br>- Apply relevant clinical evidence in clinical practice.   | 30%                                 |
|                         | 0.2           |                                | 6 hours<br>- Journal club  | 20%                                 |
| Student signature       |               |                                | Principle coordinator Signature  | Program Academic Director signature |
|                         |               |                                |  |                                     |








## Information Technology [1-8]

| Credit Points | Hours for student Workload/Semester |             |          |                  |                     |             |
|---------------|-------------------------------------|-------------|----------|------------------|---------------------|-------------|
|               | Tutorial                            | Practical   | Homework | Test Preparation | Other Private study | Total Hours |
| 1 CP          | 2 hours<br>(Tutorial)               | 22<br>hours | 6 H      | -                | -                   | 30 H        |
| Percentage%   | 6.7%                                | 73.3%       | 20%      | 0%               | 0%                  | 100%        |

| Name of the module     | Credit points | Responsible department  | Attendance  | Percentage of Achieved points       |
|------------------------|---------------|---|---|-------------------------------------|
| Information Technology | 0.1           |  Electrical Engineering Department in conjunction with Diploma coordinators. | <ul style="list-style-type: none"> <li>- Computer essentials</li> <li>- Online essentials</li> <li>- Word processing</li> <li>- Spreadsheets</li> <li>- Presentation</li> <li>- Citation management tools (mendeley or endnote)</li> <li>- It security</li> <li>- Hospital information system (his)</li> </ul>  | <b>6.7%</b>                         |
|                        | 0.7           |   | <ul style="list-style-type: none"> <li>- Identify and protect from common security challenges, and operate safely when online</li> <li>-Use the essential concepts and skills relating to web browsing, effective information search, online communication, e-mail and accessing the medical databases.</li> <li>- Apply practical skills in Using the advanced features of word processing applications to enhance work, improve productivity and save time.</li> <li>-Use a spreadsheet application, perform tasks associated with developing, formatting, modifying and using a spreadsheet, using standard formulas and functions, and competently create and format graphs or charts.</li> <li>-Handle a list of references or citations quite easily and effectively and thereby save on time.</li> <li>- Use Hospital information system (HIS) to allow health care providers to do their jobs effectively.</li> </ul> | <b>73.3%</b>                        |
|                        | 0.2           |   | 6 hour (Homework)   | <b>20%</b>                          |
| Student signature      |               |   | Principle coordinator Signature   | Program Academic Director signature |
|                        |               |   |   |                                     |





# Elective Track

● The student chooses one of these courses

1. Hospital Administration
2. Infection control
3. Medical Ethics







# Second Semester Modules

## Preoperative Assessment of Hepato-Pancreatico-Biliary Diseases

- 1- General Principles of preoperative care of HPB diseases
- 2- Diagnostic and Basic Interventional Radiology
- 3- Therapeutic Modalities in Management of HPB Tumors

## General principles of peri-operative care of Hepato-Pancreatico-Biliary Diseases Module (II-1)

| Credit Points | Hours for student Workload/Semester |                        |          |                     |   |                |
|---------------|-------------------------------------|------------------------|----------|---------------------|---|----------------|
|               | Lecture                             | Practical/<br>Clinical | Homework | Test<br>Preparation | Other<br>Private<br>study<br>(Seminar<br>+<br>Workshop) | Total<br>Hours |
| 15 CP         | 135 H                               | 170 H                  | -        | 100 H               | 45 H  | 450 H          |
| Percentage%   | 30%                                 | 37.8%                  | -        | 22.2%               | 10%   | 100            |

| Name of the module   | Credit points | Responsible department   | Attendance                         | Percentage of Achieved points                |
|--|---------------|--|------------------------------------|--|
| - General principles of peri-operative care of Hepato-Pancreatico-Biliary Diseases | 4.5           | - Surgery Department in conjunction with Diploma coordinators. | 135 H                              | 30%  |
|  | 1.5           |  | 45 hours<br>Seminar or workshop    | 10%  |
|  | 5.7           |  | Clinical<br>170 Hours              | 37.8%  |
| Student signature  |               |  | Principle coordinator<br>Signature | Program<br>Academic<br>Director<br>signature |
|  |               |  |                                    |  |



## Case log

| Cases  | Number   |
|--|----------|
| 1. Cholelithiasis (acute and chronic calcular cholecystitis) | 30 cases |
| 2. Gall bladder tumors                                       | 10 cases |
| 3. CBD stones  | 15 cases |
| 4. CBD stricture (pathological and iatrogenic)               | 15 cases |
| 5. Acute pancreatitis  | 10 cases |
| 6. Pancreatic tumors   | 20 cases |
| 7. Liver cysts   | 10 cases |
| 8. Liver Tumors  | 20 cases |









**Rotation and attendance in Units**

| Date<br>From ---- to---- | Unit | Duration | Signature of<br>supervisor |
|--------------------------|------|----------|----------------------------|
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### Out Patient Clinic

| Date<br>/ Duration<br>from -to | Name of Clinic | Signature of<br>supervisor |
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## Clinical Seminars and workshop

### Requirements:

- Attendance of at least 60% of Seminars and one workshop
- Presentation of at least one case in the seminar

### Attendance

| Date | Attendance | Topic | Signature |
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**Case or Topic presentation**

| Date | Case/ Topic | Signature |
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## Procedures log book

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| <b>➤ Interpret (C):</b>  |             |
| - Imaging of the liver, biliary tract and pancreas on CT, MRI and U/S  | (20 cases)  |
| - Interpret the hematologic and biochemical tests and explain the underlying physiology  | (20 cases)  |
| - Interpret the dynamic tests of liver function.   | (20 case)   |
| - Evaluate liver function and portal hypertension (including Child's and MELD scores and their variations)   | ( 20 cases) |
| - Develop a detailed operative strategy for liver resections based on preoperative assessment and imaging.   | (20 cases)  |
| <b>➤ Perform and Interpret / perform under supervision (B):</b>  |             |
| - Perform and interpret intraoperative U/S of the liver, biliary tract and pancreas.   | (10 cases)  |
| - Perform and interpret liver biopsy – laparoscopic or open.   | (10 cases)  |
| - Determine the appropriate abdominal wall incisions for open procedures on the liver, biliary tract and pancreas.   | (20 cases)  |
| - Determine the appropriate port site placements and patient positions for laparoscopic procedures on the liver, biliary tract and pancreas and the relative indications for each and the need for a hand-port . | (20 cases)  |
| - Perform laparoscopic and open drainage of liver cyst or abscess (unroofing, resection)   | (10 cases)  |
| - Perform portosystemic shunt – portocaval, mesocaval, splenorenal and their variants .  | (5 cases)   |
| - Perform liver resections using a variety of approaches and transection techniques.   | (5 cases)   |
| - Manage biliary injuries resulting from cholecystectomy and other trauma.   | (5 cases)   |
| - Perform resection and reconstruction for choledochal cysts, RPC and benign strictures.   | (5 cases).  |
| - Perform extended cholecystectomy for potential oncologic indication  | (5 cases)   |
| - Perform transduodenal resection of the Ampulla of Vater with reconstruction of the bile and pancreatic ducts.  | (5 cases)   |
| - Perform extended resection of the biliary bifurcation with the caudate and ipsilateral lobes of the liver, portal lymphadenectomy and biliary reconstruction   | (5 cases)   |
| - Perform pancreatoduodenectomy +/- portal vein resection and reconstruction.  | (5 cases)   |
| - Perform open and/or laparoscopic procedures for acute pancreatitis   | (5 cases)   |
| - Perform: pseudocystenterostomy, lateral pancreaticojejunostomy with/without limited resection of the head of the pancreas (Frey or Berger procedures), pancreatic resection                                    | (5 cases)   |
| - Perform distal pancreatectomy and regional lymphadenectomy with and without splenectomy, open and laparoscopic techniques.   | (5 cases)   |
| - Perform palliative procedures for unresectable tumors  | (5 cases)   |
| <b>➤ Independently Perform (A)</b>   |             |
| - Perform and interpret intraoperative U/S of the liver, biliary tract and pancreas.   | (5 cases)   |
| - Perform and interpret liver biopsy – laparoscopic or open.   | (5 cases)   |

### Procedure logs

| Date | Diagnosis of case | Procedure | Level of competency * | Location | Signature of supervisor |
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\* Level of competency  
A- Independent performance  
B- Performance or interpretation under supervision  
C- Observed / Interpret

### Procedure logs

| Date | Diagnosis of case | Procedure | Level of competency * | Location | Signature of supervisor |
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\* Level of competency  
A- Independent performance  
B- Performance or or interpretation supervision  
C- Observed / Interpret

### Procedure logs

| Date | Diagnosis of case | Procedure | Level of competency<br>* | Location | Signature of supervisor |
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\* Level of competency  
A- Independent performance  
B- Performance or interpretation under supervision  
C- Observed / Interpret



# Diagnostic and Basic Interventional Radiology Modules (II-2)

## Unit 1 Diagnostic Radiology Module

| Credit Points | Hours for student Workload/Semester |                        |                         |                     |   | Total Hours |
|---------------|-------------------------------------|------------------------|-------------------------|---------------------|---|-------------|
|               | Lecture                             | Practical/<br>Clinical | Homework/<br>Assignment | Test<br>Preparation | Other Private<br>study<br>(Conference<br>or workshop) |             |
| 5 CP          | 40 H                                | 35 H                   | -                       | 45 H                | 30 H  | 150 H       |
| Percentage%   | 26.7%                               | 23.3%                  | -                       | 30%                 | 20%   | 100%        |

| Name of the module          | Credit points     | Responsible department   | Attendance   | Percentage of Achieved points       |
|-----------------------------|-------------------|--|--|-------------------------------------|
| Diagnostic Radiology Module | 1.3               | - Radiology Department in conjunction with Diploma coordinators. | 40 H<br>- Basic and physics of abdominal ultrasound<br>-Indication, contraindication of Abdominal US, CT scan, MRI, angiography and PET scan<br>- US of Normal liver, hepato-biliary channels, and pancreas<br>- Doppler assessment of the porto-systemic circulation<br>Echofree, hypoechoic , hyperechoic lesions<br>- US of diffuse and focal pathology of liver, biliary channels and pancreas<br>- CT scan of Normal liver, biliary channels, and pancreas<br>- MRI of normal liver, biliary channels and pancreas<br>-Arteriography: indication, contraindications, complications, focal lesions, diffuse hepatic diseases, therapeutic infusion<br>- Radiological features of Diffuse liver diseases<br>- Radiological features of focal liver lesions<br>- Radiological features of Hepatic cysts.<br>- Radiological features of vascular liver disease.<br>- Radiological features of Malignant liver tumors.<br>- Radiological features of biliary channels obstruction<br>- Radiological features of Pancreatitis (acute& chronic)<br>- Radiological features of Gallstone disease and - Choledocholithiasis<br>- Radiological features of Benign and malignant biliary strictures<br>- Radiological features of Cystic lesions of the pancreas<br>-Radiological features of Pancreas adenocarcinoma and ampullary cancer<br>- Radiological features of Neuroendocrine tumors of pancreas | 26.7%                               |
|                             | 1                 |  | 30 hours<br>Workshop or conference   | 20%                                 |
|                             | 1.2               |  | Practical (35 hours)   | 23.3%                               |
|                             | Student signature |  | Principle coordinator signature  | Program Academic Director signature |
|                             |                   |  |  |                                     |




(Lectures)

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## Procedures log book

|  <b>Independently Interpret (A)</b>     | <b>Number</b> |
|--|---------------|
| - X ray abdomen.   | 10            |
| - Abdominal Ultrasonography and Doppler  | 10            |
| - CT abdomen   | 5             |
| - MRCP   | 5             |
| - Cholangiography  | 5             |
| -Angiography   | 5             |
|  <b>Interpret under supervision (B)</b> |               |
| - X ray abdomen.   | 10            |
| - Abdominal Ultrasonography and Doppler  | 10            |
| - CT abdomen   | 10            |
| - MRCP   | 5             |
| - Cholangiography  | 5             |
| - Angiography  | 5             |
|  <b>Observe (C)</b>                   |               |
| - X ray abdomen.   | 10            |
| - Abdominal Ultrasonography and Doppler  | 10            |
| - CT abdomen   | 10            |
| - MRCP   | 5             |
| - Cholangiography  | 5             |
| - Angiography  | 5             |

### Test for the competency in the procedure\*

| Date | Procedure | Level of competency* | Signature of supervisor |
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#### Level of competency \*

- A- Independently Interpret
- B- Interpret under supervision
- C- Observed

### Test for the competency in the procedure\*

| Date | Procedure | Level of competency* | Signature of supervisor |
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#### Level of competency \*

- A- Independently Interpret
- B- Interpret under supervision
- C- Observed

## Clinical Seminars

### Requirements:

- Attendance of at least 60% of Seminars and 1 workshop
- Presentation of at least one case in the seminar

### Attendance

| Date | Attendance | Topic | Signature |
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## Unit 2 Basic Interventional Radiology module



| Credit Points | Student Workload/Semester (15 weeks) |                        |          |                     |   |                |
|---------------|--------------------------------------|------------------------|----------|---------------------|---|----------------|
|               | Lecture                              | Practical/<br>Clinical | Homework | Test<br>Preparation | Other<br>Private<br>study<br>(Conference<br>or<br>workshop) | Total<br>Hours |
| 5 CP          | 40 H                                 | 35 H                   | -        | 45 H                | 30 H  | 150 H          |
| Percentage%   | 26.7%                                | 23.3%                  | -        | 30%                 | 20%   | 100%           |

| Name of the module                    | Credit points     | Responsible department   | Attendance                      | Percentage of Achieved points       |
|---------------------------------------|-------------------|--|---------------------------------|-------------------------------------|
| -Basic<br>Interventional<br>Radiology | 1.3               | - Radiology Department in conjunction with Diploma coordinators. | 40 H                            | 26.7%                               |
|                                       | 1                 |  | 30 hours<br>Workshop            | 20%                                 |
|                                       | 1.2               |  | Practical (35 hours)            | 23.3%                               |
|                                       | Student signature |  | Principle coordinator signature | Program Academic Director signature |
|                                       |                   |  |                                 |                                     |

**(Lectures)**

| Date | Attendance | Topic | Signature |
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## Procedures log book

|  <b>Independently Interpret (A)</b>                    | <b>Number</b> |
|---|---------------|
| - Abdominal US and Doppler.   | 10            |
| - MSCT Scan Abdomen.  | 10            |
| - Dynamic MRI with diffusion on the abdomen.  | 5             |
| -PET Scan.  | 5             |
| - Bone Scan   | 5             |
|  <b>Perform and/or Interpret under supervision (B)</b> | <b>Number</b> |
| - Abdominal US and Doppler US.  | 10            |
| - MSCT Scan Abdomen.  | 10            |
| - Dynamic MRI with diffusion on the abdomen.  | 5             |
| -PET Scan.  | 5             |
| - Bone Scan.  | 5             |
| - Alchol Injection.   | 5             |
| -Liver biopsy.  | 5             |
| - Aspiration of Liver Abscess.  | 5             |
| -Pig tail insertion Under Supervision.  | 5             |
| - Radiofrequency ablation(RFA) under supervision.   | 5             |
| -Microwave Ablation under supervision.  | 5             |
| <b>Observe (C)</b>  | <b>Number</b> |
| - Abdominal US and Doppler US.  | 10            |
| - MSCT Scan Abdomen.  | 10            |
| - Dynamic MRI with diffusion on the abdomen.  | 5             |
| -PET Scan.  | 5             |
| - Bone Scan.  | 5             |
| - Alchol Injection.   | 5             |
| -Liver biopsy.  | 5             |
| - Aspiration of Liver Abscess.  | 5             |
| -Pig tail insertion Under Supervision.  | 5             |
| - Radiofrequency ablation(RFA) under supervision.   | 5             |
| -Microwave Ablation under supervision.  | 5             |

**Test for the competency in the procedure\***

| Date | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independently Interpret
- B- Interpret/perform under supervision
- C- Observed

**Test for the competency in the procedure\***

| Date | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independently Interpret
- B- Interpret/perform under supervision
- C- Observed

## Clinical Seminars

### Requirements:

- Attendance of at least 60% of Seminars and 1 workshop
- Presentation of at least one case in the seminar

### Attendance

| Date | Attendance | Topic | Signature |
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## Therapeutic Modalities in Management of Hepato-Pancreatico-Biliary Tumors Module (II-3)

| Credit Points      | Hours for student Workload/Semester |                        |          |                     |                           |                |
|--------------------|-------------------------------------|------------------------|----------|---------------------|---------------------------|----------------|
|                    | Lecture                             | Practical/<br>Clinical | Homework | Test<br>Preparation | Other<br>Private<br>study | Total<br>Hours |
| <b>5 CP</b>        | <b>45 H</b>                         | <b>15 H</b>            | <b>-</b> | <b>50 H</b>         | <b>40 H</b>               | <b>150 H</b>   |
| <b>Percentage%</b> | <b>30%</b>                          | <b>10%</b>             |          | <b>33.3%</b>        | <b>26.7%</b>              | <b>100%</b>    |

| Name of the module  | Credit points     | Responsible department                                       | Attendance   | Percentage of Achieved points       |
|---|-------------------|--|--|-------------------------------------|
| - Therapeutic Modalities in Management of Hepato-Pancreatico-Biliary Tumors | 1.5               | - Nuclear Medicine in conjunction with Diploma coordinators. | 45 H   | 30%                                 |
|   | 1.3               |  | <ul style="list-style-type: none"> <li>- Overview of hepato-pancreatico-biliary tumors.</li> <li>- Chemotherapy: classes of drugs, mechanisms of action.</li> <li>- Radiotherapy: applied physics and technology, combination protocols with chemotherapy.</li> <li>- Multidisciplinary management.</li> </ul> |                                     |
|   | 0.5               |  | 40 hours Seminar   | 26.7%                               |
|   | 15 hours Clinical |  | 10%  |                                     |
| Student signature   |                   |  | Principle coordinator signature  | Program Academic Director signature |
|   |                   |  |  |                                     |

### Case log

| Cases                                   | Number   |
|---|----------|
| 1. Gall Bladder Tumors                  | 10 cases |
| 2. CBD tumors                           | 10 cases |
| 3. Pancreatic Tumors                    | 10 cases |
| 4. Liver Tumors (Primary and secondary) | 10 cases |

**(Lectures)**

| Date | Attendance | Topic | Signature |
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### Clinical case log

| Date | Diagnosis of case | Level of participation * | Location | Signature of supervisor |
|------|-------------------|--------------------------|----------|-------------------------|
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\* Level of participation  
A- Plan and carry out  
B- Carry out  
C- Carry out under supervision

## Clinical Seminars

### Requirements:

- Attendance of at least 60% of Seminars
- Presentation of at least one case in the seminar

### Attendance

| Date | Attendance | Topic | Signature |
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### Case or Topic presentation in the Seminar

| Date | Case/ Topic | Signature |
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# Third Semester Modules

## Operative and Interventional Management of Hepato-Pancreatico-Biliary Diseases

- 1- Surgical Skills
- 2- Laparoscopy
- 3- Gastrointestinal Endoscopy



## Surgical skills (III-1)

| Credit Points | Student Workload/Semester (15 weeks) |                        |          |                     |  |                |
|---------------|--------------------------------------|------------------------|----------|---------------------|--|----------------|
|               | Lecture                              | Practical/<br>Clinical | Homework | Test<br>Preparation | Other Private<br>study<br>(Attendance of<br>workshops or<br>Conference<br>related to<br>Laparoscopy,<br>Seminar<br>attendance and/<br>or presentation,<br>Hospital work) | Total<br>Hours |
| 15 CP         | 45 H                                 | 200 H                  | 55 H     | 90 H                | 60 H   | 450 H          |
| Percentage%   | 10%                                  | 44.5%                  | 12.2%    | 20%                 | 13.3%  | 100%           |

| Name of the course | Credit points | Responsible department      | Attendance   | Percentage of Achieved points                |
|--------------------|---------------|-----------------------------|--|--|
| Surgical Skills    | 1.5           | General Surgery Department. | <ul style="list-style-type: none"> <li>- 45 H</li> <li>- Describe the different types of surgical instruments and equipments and mention the advantages and disadvantages of each.</li> <li>- Describe the indications and contraindications of surgical procedures in HPB Surgery.</li> <li>- Describe the possible complications of HPB surgery and their pathogenesis and proper prevention and treatment.</li> <li>- Describe the technical steps of related surgical procedures as cholecystectomy, CBD exploration, Hepatico-jejunostomy, Pancreatectomy, Liver resection etc.</li> <li>- Mention the safety precautions during different surgical procedures to guard against complications</li> <li>- Mention the preoperative preparation and postoperative care for surgical procedures</li> </ul> | 10%  |
|                    | 6.7           |                             | 200 hours<br>Clinical  | 44.5%  |
|                    | 2             |                             | 60 hours<br>Workshop   | 13.3%  |
|                    | 1.8           |                             | 55 H<br>Home work  | 12.2%  |
| Student signature  |               |                             | Principle coordinator<br>Signature   | Program<br>Academic<br>Director<br>signature |
|                    |               |                             |  |  |





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**(Lectures)**

| Date | Attendance | Topic | Signature |
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## Procedures log book for Surgical Skills

### Requirements:\*

|  <b>Level of competency (C and B)</b> | <b>Number</b> |
|--|---------------|
| - Surgical instruments and equipments and know how to use them properly.   | 10            |
| - Basic surgical Skills  | 10            |
| - Gall Bladder Surgery   | 20            |
| - CBD Surgery  | 10            |
| - Pancreatic Surgery   | 10            |
| - Liver Resection Surgery  | 10            |
| - Pre and post-operative care of HPB surgery   | 10            |
|  <b>Level of competency A</b>       | <b>Number</b> |
| - Surgical instruments and equipments and know how to use them properly.   | 10            |
| - Basic surgical Skills  | 10            |
| - Gall Bladder Surgery   | 20            |
| - CBD Surgery  | 5             |
| - Pancreatic Surgery   | 5             |
| - Liver Resection Surgery  | 5             |
| - Pre and post-operative care of HPB surgery   | 10            |
| <b>Level of competency *</b>   |               |
| A- Independent performance<br>B- Performance under supervision<br>C- Observed  |               |

### Test for the competency in the operation\*

| No. | Diagnosis of the case | Operation | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independent performance
- B- Performance under supervision
- C- Observed

### Test for the competency in the operation \*

| No. | Diagnosis of the case | Operation | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independent performance
- B- Performance under supervision
- C- Observed

## Test for the competency in the operation\*

| No. | Diagnosis of the case | Operation | Level of competency* | Signature of supervisor |
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### Level of competency \*

- A- Independent performance
- B- Performance under supervision
- C- Observed



## Workshops or Conference, Seminar attendance and/ or presentation, Hospital work

### Requirements:

- Attendance of at least 5 Seminars and attendance of one conference
- Presentation of at least once in the seminar

### Attendance

| Date | Attendance | Topic | Signature |
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**Case or Topic presentation**

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**Home work log**

| Date | Topic | Signature |
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## Laparoscopy Module (III-2)

| Credit Points       | Student Workload/Semester (15 weeks) |                        |                      |                       |   |                |
|---------------------|--------------------------------------|------------------------|----------------------|-----------------------|---|----------------|
|                     | Lecture                              | Practical/<br>Clinical | Homework             | Test<br>Preparation   | Other Private<br>study<br>(Attendance of<br>Workshop or<br>Conference<br>related to<br>Laparoscopy,<br>Seminar<br>attendance and/<br>or presentation,<br>Hospital work) | Total<br>Hours |
| <b>10 CP</b>        | <b>1 CP<br/>30 H</b>                 | <b>5 CPS<br/>150 H</b> | <b>1 CP<br/>30 H</b> | <b>2 CPS<br/>60 H</b> | <b>1 CP<br/>30 H</b>  | <b>300 H</b>   |
| <b>Percentage %</b> | <b>10 %</b>                          | <b>50 %</b>            | <b>10 %</b>          | <b>20 %</b>           | <b>10 %</b>   | <b>100%</b>    |

| Name of the course | Credit points     | Responsible department      | Attendance   | Percentage of Achieved points      |
|--------------------|-------------------|-----------------------------|--|------------------------------------|
| Laparoscopy Module | 1                 | General Surgery Department. | 30 H<br>- History and instrumentation of laparoscopic surgery.<br>- Indications and Contraindications of laparoscopic surgery.<br>- Complications of laparoscopic surgery and safe laparoscopy<br>- Basic laparoscopic skills<br>- Basic laparoscopic techniques.<br>- Anesthesia for laparoscopic surgery<br>- Diagnostic laparoscopy.<br>- Laparoscopic cholecystectomy<br>- Complications of laparoscopic cholecystectomy<br>- Laparoscopic CBD surgery<br>- Pancreatic laparoscopic surgery<br>- Laparoscopic hepatic surgery<br>- Role of laparoscopy in Liver transplantation<br>- Pre and post operative care of laparoscopic surgery | 10 %                               |
|                    | 1                 |                             | 30 hours<br>Seminar or Conference or journal club  | 10 %                               |
|                    | 5                 |                             | 150 H<br>Clinical  | 50 %                               |
|                    | 1                 |                             | 30 hours<br>Home Work  | 10%                                |
|                    | Student signature |                             |  | Principle coordinator<br>Signature |
|                    |                   |                             |  |                                    |



**Procedure log of:**

|  <b>Observe : C</b>                 | <b>Number</b> |
|--|---------------|
| 1. Laparoscopic Cholecystectomy  | 15            |
| 2. Laparoscopic CBD exploration  | 10            |
| 3. Laparoscopic Liver Resection  | 5             |
| 4. Laparoscopic Reconstuction (Roux-N-Y Reconstruction)  | 5             |
|  <b>Log of under supervision: B</b> |               |
| 1. Laparoscopic Cholecystectomy  | 10            |
| 2. Laparoscopic CBD exploration  | 5             |
| 3. Laparoscopic Liver Resection  | 5             |
|  <b>Independently Perform: A</b>    |               |
| 1. Laparoscopic Cholecystectomy  | 15            |
| 2. Laparoscopic CBD exploration  | 2             |
| 3. Laparoscopic Liver Resection  | 2             |

## Test for the competency in the operation\*

| No. | Diagnosis of the case | Operation | Level of competency* | Signature of supervisor |
|-----|-----------------------|-----------|----------------------|-------------------------|
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### Level of competency \*

- A- Independent performance
- B- Performance under supervision
- C- Observed

### Test for the competency in the operation \*

| No. | Diagnosis of the case | Operation | Level of competency* | Signature of supervisor |
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#### Level of competency \*

- A- Independent performance
- B- Performance under supervision
- C- Observed



### Test for the competency in the operation\*

| No. | Diagnosis of the case | Operation | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independent performance
- B- Performance under supervision
- C- Observed

## Workshop or Conference related to Laparoscopy, Seminar attendance and/or presentation, Hospital work

### Requirements:

- Attendance of at least 5 Seminars and attendance of one conference
- Presentation of at least once in the seminar

### Attendance

| Date | Attendance | Topic | Signature |
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### Case or Topic presentation

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### Home work log

| Date | Topic | Signature |
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## Gastrointestinal Endoscopy Module (III-3)




| Credit Points      | Hours for student Workload/Semester |                        |          |                     |                                       |                |
|--------------------|-------------------------------------|------------------------|----------|---------------------|---------------------------------------|----------------|
|                    | Lecture                             | Practical/<br>Clinical | Homework | Test<br>Preparation | Other<br>Private<br>study<br>Workshop | Total<br>Hours |
| <b>5 CP</b>        | <b>15 H</b>                         | <b>90 H</b>            | -        | <b>30 H</b>         | <b>15 H</b>                           | <b>150 H</b>   |
| <b>Percentage%</b> | <b>10%</b>                          | <b>60%</b>             |          | <b>20%</b>          | <b>10%</b>                            | <b>100%</b>    |

| Name of the course          | Credit points | Responsible department   | Attendance   | Percentage of Achieved points       |
|-----------------------------|---------------|--|--|-------------------------------------|
| Gastrointestinal Endoscopy. | 0.5           | Staff members in Unit of GIT Endoscopy in conjunction with Diploma coordinators. | 90 Hours   | 10%                                 |
|                             | 0.5           |  | <ul style="list-style-type: none"> <li>- Upper Endoscopy</li> <li>- Colonoscopy</li> <li>- ERCP and EUS</li> <li>- Understanding specific indications, contraindications, diagnostic and therapeutic alternatives of endoscopic procedures.</li> <li>- Role of Endoscopy in Management of HPB diseases.</li> <li>- Performing upper endoscopy and colonoscopy procedures safely and interpret the findings and integrate them into medical or endoscopic therapy.</li> <li>- Acknowledge limitation of Endoscopic procedures.</li> </ul> | 10%                                 |
|                             | 3             |  | 15 hours Workshop  | 60%                                 |
| Student signature           |               |  | Principle coordinator Signature  | Program Academic Director signature |
|                             |               |  |  |                                     |





**Procedure log of:**

|  <b>Observe (C)</b>                      | <b>Number</b>       |
|---|---------------------|
| <ul style="list-style-type: none"> <li>• Upper Endoscopy</li> <li>• Colonoscopy</li> <li>• ERCP</li> <li>• EUS</li> </ul> | 20<br>20<br>10<br>5 |
|  <b>Log of under supervision (B)</b>     |                     |
| <ul style="list-style-type: none"> <li>• Upper Endoscopy</li> <li>• Colonoscopy</li> <li>• ERCP</li> <li>• EUS</li> </ul> | 10<br>10<br>5<br>5  |
|  <b>Independently Perform (A)</b>        |                     |
| <ul style="list-style-type: none"> <li>• Upper Endoscopy</li> <li>• Colonoscopy</li> <li>• ERCP</li> </ul>                | 10<br>10<br>2       |



### Test for the competency in the procedure \*

| No. | Diagnosis of the case | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independent performance
- B- Performance under supervision
- C- Observed

### Test for the competency in the procedure\*

| No. | Diagnosis of the case | Procedure | Level of competency* | Signature of supervisor |
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- Level of competency \***
- A- Independent performance
  - B- Performance under supervision
  - C- Observed

## Workshop

### Requirements:

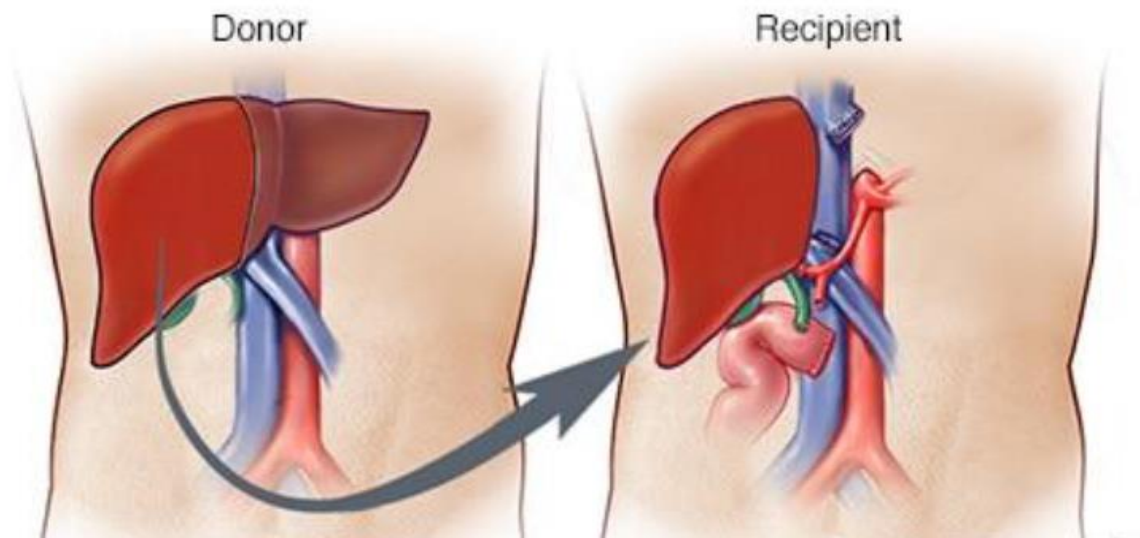
- Attendance of at least 1 Workshop

### Attendance

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## Fourth Semester Modules

### Liver Transplantation



- 1- Basic Knowledge and Introduction for Organ Transplantation**
- 2- Preoperative Management and Assessment**
- 3- Surgical Skills**

## Basic Knowledge and Introduction for Organ Transplantation Module (IV-1)

| Credit Points      | Student Workload/Semester (15 weeks) |                        |          |                     |  |                |
|--------------------|--------------------------------------|------------------------|----------|---------------------|--|----------------|
|                    | Lecture                              | Practical/<br>Clinical | Homework | Test<br>Preparation | Other Private<br>study<br>(Attendance of<br>workshops or<br>Conference<br>related to liver<br>transplantation,<br>Seminar<br>attendance and/<br>or presentation,<br>Hospital work) | Total<br>Hours |
| <b>5 CP</b>        | 45 H                                 | 45 H                   | 10 H     | 30 H                | 20 H   | 150 H          |
| <b>Percentage%</b> | 30%                                  | 30%                    | 6.7%     | 20%                 | 13.3%  | 100%           |


| Name of the course  | Credit points     | Responsible department | Attendance   | Percentage of Achieved points       |
|---|-------------------|------------------------|--|-------------------------------------|
| Basic Knowledge and Introduction for Organ Transplantation Module | 1.5               | Surgery Department     | 45 H<br>- Acute and chronic liver failure.<br>- Hepatocellular carcinoma and other liver tumors.<br>- Brain death, organ procurement and preservation.<br>- Indications for liver transplantation.<br>- Outcomes and complications of transplantation.<br>- Immunosuppression, drugs, mechanisms of action, toxicities and combination therapy.<br>- Organ allocation. | 30%                                 |
|   | 0.7               |                        | 20 hours Seminar or Conference/Workshop  | 13.3%                               |
|   | 1.5               |                        | 45 hours (Clinical)  | 30%                                 |
|   | 0.3               |                        | 10 Hours Home work   | 6.7%                                |
|   | Student signature |                        | Principle coordinator signature  | Program Academic Director signature |
|   |                   |                        |  |                                     |







**Procedure log of:**

|  <b>Order and interpret (A)</b>  | <b>Number</b>                                |
|--|--|
| <ol style="list-style-type: none"> <li>1. Identify indications and complications of organ transplant</li> <li>2. Identify role of immunosuppressive drugs in organ transplant</li> <li>3. Identify ordinary preparation for donor</li> <li>4. Identify ordinary preparation for recipient</li> <li>5. Identify invasive and non-invasive diagnostic procedures for liver transplant</li> </ol> | <p>5</p> <p>5</p> <p>5</p> <p>5</p> <p>5</p> |
| <b>Observe (C)</b>   |  |
| <ol style="list-style-type: none"> <li>1. Identify indications and complications of organ transplant</li> <li>2. Identify role of immunosuppressive drugs in organ transplant</li> <li>3. Identify ordinary preparation for donor</li> <li>4. Identify ordinary preparation for recipient</li> <li>5. Identify invasive and non-invasive diagnostic procedures for liver transplant</li> </ol> | <p>5</p> <p>5</p> <p>5</p> <p>5</p> <p>5</p> |

**Test for the competency in the procedure \***

| No. | Diagnosis of the case | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Order and interpret
- B- Under supervision
- C- Observed

## Test for the competency in the procedure\*

| No. | Diagnosis of the case | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Order and interpret
- B- Under supervision
- C- Observed

## Clinical Seminars/ conferences

### Requirements:

- Attendance of at least 3 Seminars and attendance of one conference
- Presentation of at least one case in the seminar

### Attendance

| Date | Attendance | Topic | Signature |
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### Case or Topic presentation

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### Home work log

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## Operative management and Assessment of Liver Transplantation (IV-2)

| Credit Points | Hours for student Workload/Semester |                        |          |                     |   |                |
|---------------|-------------------------------------|------------------------|----------|---------------------|---|----------------|
|               | Lecture                             | Practical/<br>Clinical | Homework | Test<br>Preparation | Other Private<br>study<br>(Workshop/<br>conference) | Total<br>Hours |
| 10 CP         | 50 hours<br>(10<br>lectures)        | 25 hours               | -        | 150 H               | 75 H  | 300            |
| Percentage%   | 16.7%                               | 8.3%                   | -        | 50%                 | 25%   | 100%           |


| Name of the course   | Credit points | Responsible department   | Attendance  | Percentage of Achieved points       |
|--|---------------|--|---|-------------------------------------|
| - Operative management and Assessment of Liver Transplantation | 1.6           | - Surgery Department in conjunction with Diploma coordinators. | 50 H<br><b>- Patient evaluation</b><br>- Current indications and contraindications and timing for transplantation.<br>- Evaluation of the high-risk patient in LT<br>- correlation of CHILD and MELD scores with operative morbidity and mortality in LT.<br>- Transplantation for Hepatitis B, C fulminant hepatic failure, primary biliary cirrhosis, primary sclerosing cholangitis and autoimmune hepatitis. Transplantation for primary liver malignancy.<br>Transplantation for Budd-Chiari syndrome.<br><b>- Patient evaluation (pediatric)</b><br><b>- Special considerations in patient evaluation</b><br>- Ethical considerations in liver transplantation:<br>- DONATION AND PROCUREMENT OF ORGANS<br>- Deceased Donor Organs<br>- Definition of Death<br>- Family Veto of Organ Donor Cards<br>- Required Request and Presumed Consent<br>Laws<br>- Live Liver Donation<br>- PSYCHIATRIC ASSESSMENT OF LIVER TRANSPLANT CANDIDATES<br>- Mood disorders<br>Addiction<br>Tobacco smoking<br>Personality disorders and etc ..<br><b>- Pretransplantation evaluation</b><br>- Renal, Cardiac, infectious diseases<br>- Role of the clinical nurse co-ordinator.<br>- Radiological evaluation in transplantation.<br>- Nutritional aspects of liver transplantation.<br>- Management of portal hypertension bleeding.<br>- Portopulmonary hypertension and hepatopulmonary syndrome. | 16.7%                               |
|  | 2.5           |  | 75 hours<br>Workshop  | 25%                                 |
|  | 0.8           |  | 25 hour<br>Practical  | 8.3%                                |
| Student signature  |               |  | Principle coordinator<br>Signature  | Program Academic Director signature |
|  |               |  |   |                                     |







**Procedure log of:**

|  <b>Order and interpret under supervision (B)</b> | <b>Number</b> |
|---|---------------|
| -Hepatitis markers and markers for other viruses for donor and recipient.   | 5             |
| - Tumor markers for donor and recipient.  | 5             |
| - Iron study for donor and recipient.   | 5             |
| - Thrombophilia work-up for donor and recipient.  | 5             |
| -Chest X Ray, ECG, Echocardiography, pulmonary function test for donor and recipient.   | 5             |
| - Dobutamin stress echo for the recipient.  | 5             |
| -Imaging for donor (CT Abdomen, MRCP)   | 5             |
| -Abdominal Ultrasonography and Doppler for donor and recipient.   | 5             |
| - Carotid Doppler for recipient.  | 5             |
| -CT abdomen for donor and recipient.  | 5             |
| - Dynamic MRI with diffusion for recipients in HCC.   | 5             |
| -Upper and lower endoscopy.   | 5             |
| - Metastatic work up for HCC patient (Bone scan, PET Scan, Whole body MRI, CT chest, CT brain).                                   | 5             |
| - Breast US and Mammography for female more than 45 years.  | 5             |
| -Consultation for donor and recipient.  | 5             |
| - Liver biopsy for donor.   | 5             |
| <b>Perform under supervision (B)</b>  | <b>Number</b> |
| - Abdominal US.   | 5             |
| - Liver Biopsy for donor.   | 5             |
| - Alcohol injection.  | 5             |

**Test for the competency in the procedure \***

| No. | Diagnosis of the case | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independent interpretation or performance
- B- Order and interpret or Perform under supervision
- C- Observed

**Test for the competency in the procedure\***

| No. | Diagnosis of the case | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independent interpretation or performance
- B- Order and interpret or Perform under supervision
- C- Observed

## Conference or Workshop

### Requirements:

- Attendance of at least one conference or workshop

### Attendance

| Date | Attendance | Topic | Signature |
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### Home work log

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## Surgical skills of liver transplantation (IV-3)

| Credit Points       | Student Workload/Semester (15 weeks) |                        |                       |                        |  | Total Hours  |
|---------------------|--------------------------------------|------------------------|-----------------------|------------------------|--|--------------|
|                     | Lecture                              | Practical/<br>Clinical | Homework              | Test<br>Preparation    | Other Private study<br>(Attendance of workshop<br>or Conference related to<br>liver transplantation,<br>Seminar attendance and/<br>or presentation, Hospital<br>works) |              |
| <b>15 CP</b>        | <b>3 CP<br/>90 H</b>                 | <b>6 CPS<br/>180H</b>  | <b>2.2 CP<br/>65H</b> | <b>2.3 CPS<br/>70H</b> | <b>1.5 CP<br/>45H</b>  | <b>450 H</b> |
| <b>Percentage %</b> | <b>20 %</b>                          | <b>40 %</b>            | <b>14.5 %</b>         | <b>15.5 %</b>          | <b>10 %</b>  | <b>100%</b>  |

| Name of the course                       | Credit points | Responsible department | Attendance   | Percentage of Achieved points                |
|--|---------------|------------------------|--|--|
| Surgical skills of liver transplantation | 3 CP          | Surgery Department     | 90 H<br>- Principles of vascular anastomosis.<br>- Principles of microvascular anastomosis<br>- Principles of biliary anastomosis<br>- Donor surgery<br>- Recipient hepatectomy<br>- Inflow and outflow reconstruction<br>- Harvesting cadaveric graft<br>- Split liver transplantation<br>- Pediatric liver transplantation<br>- Dual liver transplantation<br>- Operative and post operative management of portal vein thrombosis<br>- Transplantation of BCS<br>- Management of HAS and HAT<br>- Management of outflow obstruction<br>- Management of post transplant portal vein thrombosis. | 20 %   |
|  | 1.5 cp        |                        | 45 H<br>Seminar or workshop  | 10%  |
|  | 6 CP          |                        | 180<br>Clinical  | 40%  |
|  | 2.2 CP        |                        | 65 H<br>Home work  | 14.5 %                                       |
| Student signature                        |               |                        | Principle coordinator<br>Signature   | Program<br>Academic<br>Director<br>signature |
|  |               |                        |  |  |





## (Lectures)

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**(Lectures)**

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## Case log

| Cases                                  | Number    |
|--|-----------|
| 1. Post LDLT Portal vein thrombosis    | As logged |
| 2. Post LDLT Hepatic artery thrombosis | As logged |
| 3. Post LDLT biliary leak              | As logged |
| 4. Post LDLT biloma                    | As logged |
| 5. Post LDLT hepatic vein thrombosis   | As logged |
| 6. Donor with complications            | As logged |

**Clinical case log**

| Date | Diagnosis of case | Level of participation * | Location | Signature of supervisor |
|------|-------------------|--------------------------|----------|-------------------------|
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- \* Level of participation  
A- Plan and carry out  
B- Carry out  
C- Carry out under supervision

## Procedure log of:

| + Observe: C  | Number |
|---|--------|
| - Different instruments and equipment and know how to use them properly.  | 5      |
| -To assist in the OR as second or first assistant in donor and recipient surgery  | 5      |
| -Simulator training of vascular and microvascular anastomosis.  | 5      |
| - Use of intraoperative US to confirm the vascular anatomy of the liver and interpret its findings in addition to other preoperative radiology to make operative decisions. | 5      |
| - Use of intraoperative Doppler to assess the vascular anastomoses after completion of implantation   | 5      |
| - Use of intraoperative cholangiography for assessment of biliary system.   | 5      |
| • Perform under supervision: B  | Number |
| - Different instruments and equipment and know how to use them properly.  | 5      |
| -To assist in the OR as second or first assistant in donor and recipient surgery  | 5      |
| -Simulator training of vascular and microvascular anastomosis.  | 5      |
| - Use of intraoperative US to confirm the vascular anatomy of the liver and interpret its findings in addition to other preoperative radiology to make operative decisions. | 5      |
| - Use of intraoperative Doppler to assess the vascular anastomoses after completion of implantation   | 5      |
| - Use of intraoperative cholangiography for assessment of biliary system.   | 5      |
| • Independently Perform: A  | Number |
| - Use of intraoperative US to confirm the vascular anatomy of the liver and interpret its findings in addition to other preoperative radiology to make operative decisions. | 5      |
| - Use of intraoperative Doppler to assess the vascular anastomoses after completion of implantation   | 5      |
| - Use of intraoperative cholangiography for assessment of biliary system.   | 5      |

### Test for the competency in the procedure \*

| No. | Diagnosis of the case | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independent performance
- B- Performance under supervision
- C- Observed

### Test for the competency in the procedure\*

| No. | Diagnosis of the case | Procedure | Level of competency* | Signature of supervisor |
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**Level of competency \***

- A- Independent performance
- B- Performance under supervision
- C- Observed

## Conference or Workshop

### Requirements:

- Attendance of at least one conference or workshop

### Attendance

| Date | Attendance | Topic | Signature |
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### Home work log

| Date | Topic | Signature |
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**Declaration**

| <b>Module Structure Mirror</b>   | <b>Responsible (module) Coordinator Name:</b> | <b>Signature</b> | <b>Date</b> |
|--|---|------------------|-------------|
| <b>Semester 1: Basic Science+ Elective Module</b><br><b>Basic Science</b><br>1- Anatomy & Embryology<br>2- Physiology<br>3- Pathology<br>4- Clinical Pathology and Laboratory Testing<br>5- Statistics and Research Methodology<br>6- Basic Nutrition<br>7- Evidence Based Medicine<br>8- Information Technology<br><b>Elective Modules</b><br>9- (Medical Ethics/ Hospital administration/ Infection control) |   |                  |             |
| <b>Semester 2: Preoperative Assessment of Hepato-Pancreatico-Biliary Diseases</b><br>1- General principles of preoperative care of Hepato-Pancreatico-Biliary diseases<br>2- Diagnostic and Basic Interventional Radiology<br>3- Therapeutic modalities in management of Hepato-Pancreatico-Biliary tumors.  |   |                  |             |
| <b>Semester 3: Operative and Interventional Management of Hepato-Pancreatico-Biliary Diseases</b><br>1- Surgical Skills<br>2- Laparoscopy<br>3- Gastrointestinal Endoscopy (Upper Endoscopy, Colonoscopy, Basics of ERCP & EUS).   |   |                  |             |
| <b>Semester 4: Liver Transplantation</b><br>1- Basic Knowledge and Introduction for Organ Transplantation<br>2- Preoperative Management and Assessment<br>3- Surgical Skills of liver transplantation  |   |                  |             |
| <b>- Fulfillment of required credit points prior to final examination</b>  |   |                  |             |
| <b>Diploma Degree Principle Coordinator</b>  |   |                  |             |