دليل البرنامج

دكتوراه التشريح الآدمى و علم الاجنة

Human Anatomy & Embryology
PhD

(ANA 600)

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محتوى الدليل

مدة الدراسة

- مدة الدراسة **سبعة فصول دراسية** بحيث تكون مدة الدراسة فى الفصل الدراسى الواحد 15 أسبوعا تبدأ عقب القيد للدرجة.
- إجمالي متطلبات الحصول على الدرجة العلمية **60 ساعة معتمدة** موزعة كما يلي:

الفصل الدراسى الأول: **8 ساعات معتمدة** ويشمل الآتي:

- المقررات الإجبارية المؤهلة، و التى تنظمها إدارة الدراسات العليا بالكلية.
- و تشمل هذه المقررات الدراسات المتقدمة في المجال الطبي (طرق البحث العلمي ، الإحصاء الطبي واستخدام الحاسب الآلي في العلوم الطبية والتعليم الطبى).

- **الفصول الدراسية من الثانى إلى الرابع:** يدرس الطالب مقررات أكاديمية إكلينيكية تكاملية متقدمة ويتكون كل مقرر من الآتى:
  - موضوعات أساسية فى مادة التخصص: تمثل 80 % من المحتوى.
  - موضوعات إكلينيكية متقدمة: تمثل 20 % من المحتوى.
- **الفصل الدراسى الخامس:** يخصص لمقرر تطبيقى تكاملى فى التخصص (ينتهى بالامتحان النهائى الشامل) و الرسالة و المقررات الاختيارية.
- **الفصول الدراسية السادس والسابع**: تخصص للرسالة و التدريب العملى واستكمال دراسة المقررات (إن وجدت).
- **الرسالة**: يخصص لها 20 ساعة معتمدة يمكن توزيعها على الفصول الدراسية بحد أدنى ساعتين لكل فصل دراسى.
  - لا تقل المدة الزمنية لإتمام الرسالة عن عامين. و يجوز للطالب التسجيل بساعات معتمدة للرسالة بعد الفصل الدراسى السابع.

المقررات الدراسية

الفصل الدراسى الأول

المقررات وتوزيع الساعت المعتمدة:

الفصل	المقرر	Course	الكود	الساعات المعتمدة	
				المقرر	الإجمالي
الفصل الدراسي الاول لجميع دراجات الدكتوراة	احصاء طبي متقدم	Advanced Medical statistics	PHPM618AMS	2	8
	طرق البحث العلمي متقدمة	Advanced Research Methodology	PHPM618ARME	2	
	التعليم الطبي	Medical education	MEDE 637	2	
	الاستخدام المتقدم للحاسوب في العلوم الطبية	Advanced computer course for medical sciences	ICDL600**	1	
	اللغة	TOEFL/IELTS	Lang600**	1	

درجات التقييم:

المقرر	مدة الاختبار النهائي	درجة الاختبار النهائي للمقرر
احصاء طبي متقدم	ساعة	60
طرق البحث العلمي متقدمة	ساعة	60
التعليم الطبي	ساعة	60
الاستخدام المتقدم للحاسوب في العلوم الطبية	يتم الإعلان على الشروط والمتطلبات من قبل إدارة الدراسات العليا فى بداية العام الدراسي	
اللغة		

المقررات الدراسية وعدد ساعاتها خلال الفصول الدراسية

الفصل	المقرر	Course	الكود	الساعات المعتمدة	
				المقرر	الإجمالي
الفصل الدراسي الأول	مقررات دراسية اجبارية مؤهلة والمذكورة في بند أولا من الباب الرابع للائحة			8	8
فصول الدراسية الثاني والثالث والرابع	- تشريح تطبيقي للجهاز الحركي	- Applied anatomy of musculoskeletal system.	ANA601AAMS	3	22
	- تشريح جراحي للصدر.	- Surgical anatomy of chest.	ANA601 SAC	2	
	- تشريح جراحي للبطن.	- Surgical anatomy of abdomen.	ANA601 SAA	2	
	- تشريح جراحي للحوض.	- Surgical Anatomy of pelvis.	ANA601 SAP	2	
	- تشريح جراحي للراس.	- Surgical Anatomy of head.	ANA601 SAH	2	
	- تشريح الراس.	- Surgical Anatomy of neck.	ANA601 SAN	2	
	- تشريح جراحي للرقبة.	- Applied anatomy of nervous system.	ANA601 AANS	3	
	- تشريح تطبيقي للقلب والاوعية الدموية	- Applied anatomy of cardiovascular system.	ANA601 AACVS	3	
	- علم الأجنة (خاص) .	- Special embryology.	ANA601 SE	3	
صل الدراسي الخامس	- مقرر تطبيقي تكاملي في التشريح الإشعاعي المتقدم.	- Applied practical course in Advanced Radiological Anatomy.	ANA601 ARA	8	10
	- مقرر اختياري (واحد فقط):	Elective course (only one):			
	- البيولوجيا الجزيئية المتقدمة.	- Advanced Molecular Biology.	ANA604 AMB	2	
	- انسجة خاص.	- Special Histology.	ANA602 SH	2	
	- باثولوجي عام.	- General pathology.	ANA605 GP	2	
	- كمياء الانسجة المناعية.	- Immunohistochemistry.	ANA602 IH	2	
الفصول الدراسية السادس والسابع	تخصص للرسالة والتدريب العملي المتقدم المتخصص				
الرسالة	20ساعة معتمدة توزع على الفصول الدراسية من الرابع الى السابع			20	
	إجمالي الساعات المعتمدة			60	

نظام الامتحانات و توزيع الدرجات

الفصل الدراسي	المقرر	مدة الاختبار النهائي	درجة المقرر		
			أعمال فصلية (%20)	الاختبار النهائي (%80)	الدرجة الاجمالية
الفصل الدراسي الأول	امتحانات المقررات الدراسية الاجبارية المؤهلة والمذكورة في بند أولا من الباب الرابع للائحة بمعرفة الدراسات العليا بالكلية				
الفصول الدراسية الثاني والثالث والرابع	- تشريح تطبيقي للجهاز الحركي	ساعة ونصف	20	80	100
	- تشريح جراحي للصدر	ساعة ونصف	20	80	100
	- تشريح جراحي للبطن	ساعة ونصف	20	80	100
	- تشريح جراحي للحوض	ساعة ونصف	20	80	100
	- تشريح جراحي للراس	ساعة ونصف	20	80	100
	- تشريح جراحي للرقبة	ساعة ونصف	20	80	100
	- تشريح تطبيقي للجهاز العصبي	ساعة ونصف	20	80	100
	- تشريح تطبيقي للقلب والاوعية الدموية	ساعة ونصف	20	80	100
	- علم الأجنة (خاص)	ساعة ونصف	20	80	100
الفصل الدراسي الخامس	- المقرر الاختياري	ساعة ونصف	20	80	100
	- المقرر التطبيقي التكاملي في التشريح الإشعاعي المتقدم (الامتحان التكاملي النهائي يشمل: - محطات عملي وشفوي لكل مقررات الفصول الدراسية من الثاني للرابع - محطة عملية وشفهيه في المقرر الاختياري		100 (التشريح الإشعاعي المتقدم)	400 (موزعة على المحطات الامتحانية)	500

طرق التدريس

1. المحاضرات النظرية (Lectures)
2. الدروس العملية (Practical sessions)
3. Case based discussion

طرق التقييم

1. امتحانات نظرية ((**50 %**) MCQ & (**30 %**) Written exams) فى نهاية كل فصل دراسى.
2. التقييم المستمر للأنشطة المطلوبة خلال كل فصل دراسى **(20 %)** ويتم تقييمها على الأقل مرتين خلال كل فصل دراسى بواسطة 3 أساتذة WPBA.
3. الامتحان العملى الشامل فى نهاية الفصل الدراسى الخامس على هيئة محطات (OSPE)

Program Map

EPA 1: stain tissue with immunohistochemical stain
EPA2: stain tissue with the selected specific special stains
EPA3: write results of a scientific paper (thesis supervisors)
EPA4: conduct scientific research (thesis supervisors)
EPA5: Illustrate anatomy practical for undergraduate level
EPA 6: conduct seminars on anatomy-based topic for postgraduate level in seminars with connection between basic & clinical anatomy
EPA 7: Create complete anatomy exams
EPA8: Involve in the quality work in department
EPA9: Prepare anatomical specimen

Sem. 2		20 marks	
	Applied Anatomy of MSK (ANA601 AAMS)	EPA 9 Bony specimen/model	
	Applied Anatomy of CVS (ANA601 AACVS)	EPA 5 (M1,2,3, 4) Practical section	
	Surgical Anatomy of chest (ANA601 SAC)	EPA 5 Video demonstration	
Sem. 3			
	Surgical Anatomy of abdomen (ANA601 SAA)	EPA 6 Seminar (M1,2,3,4)	EPA 5 (M5,6) Practical section
	Surgical Anatomy of pelvis (ANA601 SAP)	EPA 1 (M1,2,3) Immunostaining	EPA 8 (M1) write course report
	Special embryology (ANA601 SE)	EPA 5 Video demonstration	
Sem. 4			
	Surgical Anatomy of head (ANA601 SAH)	EPA 9 Bony Specimen/model	EPA 4 (M1) select idea for thesis
	Surgical Anatomy of neck (ANA601 SAN)	EPA 6 (M 5&6) Seminar EPA 5 (M1,2,3, 4) Practical section	EPA 8 (M2) write course file
	Applied Anatomy of nervous system (ANA601 AANS)	EPA 2 (M1,2,3) Special Stain	EPA 7 (M1) create MCQ

Sem. 5			
	Applied practical course of Advanced Radiological anatomy (ANA601 RA)	**EPA 9 Interpretation of radiological films** **EPA 6 (M 5&6) Seminar**	**EPA 4 (M2) Carry out experiment** **EPA 5 (M5,6) Practical section** **EPA 7 (M2) create SAQ**
Sem 6		**EPA 3 (M1,2,3) Write results of scientific paper** **EPA 6 (M 5&6) Seminar**	**EPA 4 (M3) write paper** **EPA 5 (M5,6) Practical section** **EPA 7 (M3 critically evaluate exams**

الإرشاد الاكاديمى

- يحدد القسم لكل طالب مرشدا أكاديميا ويفضل أن يكون من أعضاء هيئة التدريس من نفس التخصص كلما أمكن.
- و يهدف الإرشاد الأكاديمى إلى معاونة الطلاب على السير في الدراسة على أفضل وجه ممكن، والتغلب على ما يعترضهم من عقبات، مع تحقيق أقصي استفادة من الخدمات والإمكانات التي تتيحها لهم البيئة الاجتماعية عامة، والتي توفرها الكلية بصفة خاصة.

- **مهام المرشد الاكاديمى:**
- **تقديم** النصح والإرشاد للطالب خلال فترة دراسته.
- **مساعدة** الطالب في اختيار المقررات الدراسية الأساسية والتكميلية اللازمة لمجال تخصصه.

و يكون رأى المرشد الأكاديمي استشاريا وليس إلزاميا للطالب وذلك حتى نهاية دراسة الطالب للمقرر.

- **توجيه** الطالب إلى من يستطيع الرد على استفساراته.

Evaluation Checklists

EPA1: Immunohistochemical staining evaluation rating scale (DOPS)

Student name:_____
Instructor name: _____
Course name/code: _____
Date and Time of Observation:_____
Evaluation is DONE using 3-point Likert scale; 1 (unsatisfactory), 2 (acceptable), and 3 (target).

Item	1 (0.5 m)	2 (1m)	3 (2m)
M1: Select the suitable stain			
1- Choose a primary antibody that is specific to the target antigen or protein of interest.			
2- Choose an appropriate detection system, such as a labeled secondary antibody, enzyme conjugate, or fluorescent probe.			
3- Consult relevant literature and staining manuals to determine the appropriate antigen retrieval method, blocking agents, and dilutions for the primary and secondary antibodies.			
M2: Follow steps of the stain			
1- Rehydrate the tissue sections according to established protocols.			
2- Perform antigen retrieval to unmask the target antigen (heat-induced epitope retrieval (HIER) or enzyme digestion).			
3- Block non-specific binding sites on the tissue sections using a suitable blocking agent, such as bovine serum albumin (BSA) or normal serum.			
4- Incubate the tissue sections with the primary antibody for the appropriate duration and at the appropriate dilution.			
5- Incubate the tissue sections with the appropriate secondary antibody or detection system, such as a biotinylated secondary antibody or enzyme-conjugated streptavidin.			
6- Develop the chromogen using an appropriate substrate, such as diaminobenzidine (DAB), to visualize the target antigen or protein.			
7- Counterstain the tissue sections with a suitable counterstain, such as hematoxylin.			
M3: Interpret the stain results			
1- Examine the stained tissue sections under a microscope.			
2- Assess the quality of staining, such as intensity, uniformity, and specificity of staining.			
3- Compare the stained tissue sections with appropriate positive and negative controls.			
4- Interpret the results in a clear and concise manner, including any abnormalities or diagnostic features.			
5- Interpret the staining results in the context of the research question.			
6- Determine the significance of the staining results, such as whether they support a diagnosis, provide prognostic information, or indicate a therapeutic target.			
Overall performance (8 marks)			
Total 40 (/2=20)			

Comments & feedback

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EPA2: Special stain evaluation rating scale (DOPS)

Student name:_____
Instructor name: _____
Course name: _____
Date and Time of Observation:_____
Evaluation is DONE using 3-point Likert scale; 1 (unsatisfactory), 2 (acceptable), and 3 (target).

Item	1 (0.5 m)	2 (1m)	3 (2m)
M1: Select the suitable stain			
1- Choose the suitable stain to be used.			
2- Consult relevant literature and staining manuals to determine the appropriate protocol to be used.			
M2: Follow steps of the stain			
1- Rehydrate the tissue sections according to established protocols.			
2- Staining reagents prepared according to the standard protocol.			
3- The staining time and temperature appropriate for the specific stain being used.			
4- The differentiation step carried out for the correct duration.			
5- The counterstain applied evenly and for the correct duration.			
6- The tissue sections properly dehydrated and cleared after staining.			
7- The appropriate mounting media used to preserve the stained sections.			
M3: Interpret the stain results			
1- Examine the stained tissue sections under a microscope.			
2- Assess the quality of staining, such as intensity, uniformity, and specificity of staining.			
3- Interpret the results in a clear and concise manner, including any abnormalities or diagnostic features.			
4- Interpret the staining results in the context of the research question.			
Overall performance (2 marks)			
Total 20			

Comments & feedback

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Signatures

EPA 4: Scientific research conduction Evaluation rating scale

Observer name:

_____

Instructor name:

_____

Course name/code:

_____

Date and Time of Observation:

_____

Evaluation is DONE using 3-point Likert scale; Evaluation is DONE using 3-point Likert scale; 1 (unsatisfactory), 2 (acceptable), and 3 (Target).

Item	1	2	3
M1: Construct research questions			
1. Clearly define the research topic or problem you want to investigate.			
2. Ensure the research questions are focused and specific, rather than broad or vague.			
3. Formulate questions that can be answered through data collection and analysis.			
M2: Write protocol			
1. Include the title of the research project, List the names and affiliations of the research team.			
2. Provide a brief overview of the research topic and its importance. 3. Clearly state the primary and secondary objectives of the research.			
4. Describe the overall study design.			
5. Outline the data collection & analysis tools and techniques			
6. Include a list of all the references cited in the research protocol.			
M3: Retrieve literature			
1. Determine the appropriate scope of the literature search.			
2. Execute the search strategy in the selected databases and sources.			
3. Use citation management software.			
4. Explore related articles, cited references, and similar publications to identify additional relevant literature.			
5. Document any challenges or limitations encountered during the literature search process.			
6. Periodically repeat the search to identify any new or updated literature relevant to the research topic.			
Total			

Comments & feedback

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EPA 5 : Illustrate anatomy seminars (practical section) for undergraduate level Evaluation rating scale (Direct observation)

Student name: _____

Instructor name:_____

Course name/code: _____

Date and Time of Observation:_____

Evaluation is DONE using 3-point Likert scale; 1 (unsatisfactory), 2 (acceptable), and 3 (target).

Item	1 (0.5 m)	2 (1 m)	3 (2m)
M1: Construct appropriate ILOs			
1- Share the ILOs with audience at the beginning of the seminar to set expectations and guide learning.			
M2: Construct seminar depending on basic anatomical facts			
1- Start with an introduction that provides context and relevance to the topic.			
2- Identify the key anatomical structures and their functions that will be covered in the seminar.			
3- Organize the section in a logical and sequential manner, following the natural flow of the anatomical structures being discussed.			
4- Summarize the key points at the end of the seminar to reinforce learning objectives.			
M3: Design PowerPoint			
1- Choose a visually appealing and appropriate template/theme.			
2- Utilize visuals such as images, charts, and graphs to enhance understanding and engagement.			
3- Add transitions and animations sparingly to enhance the flow of your presentation.			
M4: Conduct the seminar			
1- Incorporate interactive activities or questions to encourage active learning and retention.			
2- Clearly communicate the structure and flow of the lecture to guide audience' understanding.			
3- Use clear and concise language, speaking at an appropriate pace and volume.			
4- Maintain eye contact with the audience and engage them through gestures, body language, and facial expressions.			
5- Encourage active participation by asking questions, allowing time for audience responses, and facilitating discussions.			
6- Address any questions or concerns raised by audience during the seminar.			
7- End the seminar with a brief recap and encourage audience to seek further resources or ask questions if needed.			
M5: Connect the basic anatomy with the clinical application			
M6: Engage in fruitful discussion with audience			
Overall presentation and performance (6 marks)			
Total 40 (x1/2)=20			

Comments & feedback

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EPA 6: conduct seminars on anatomy-based topic for postgraduate level Evaluation rating scale (Direct observation)

Student name: _____

Instructor name:_____

Course name/code: _____

Date and Time of Observation:_____

Evaluation is DONE using 3-point Likert scale; 1 (unsatisfactory), 2 (acceptable), and 3 (target).

Item	1 (0.5 m)	2 (1 m)	3 (2m)
M1: Construct appropriate ILOs			
1- Write clear and concise statements that describe what audience will be able to do or know after completing the seminar.			
2-Use action verbs to describe the level of learning expected.			
3- Share the ILOs with audience at the beginning of the seminar to set expectations and guide learning.			
M2: Construct seminar depending on basic anatomical facts			
1- Start with an introduction that provides context and relevance to the topic.			
2- Identify the key anatomical structures and their functions that will be covered in the seminar.			
3- Organize the seminar in a logical and sequential manner, following the natural flow of the anatomical structures being discussed.			
4- Summarize the key points at the end of the seminar to reinforce learning objectives.			
5- Provide additional resources or references for further reading or exploration.			
M3: Design PowerPoint			
1- Choose a visually appealing and appropriate template/theme.			
2- Use consistent fonts, colors, and formatting throughout the slides.			
3- Keep the text on each slide concise and easy to read.			
4- Utilize visuals such as images, charts, and graphs to enhance understanding and engagement.			
5- Limit the number of slides and avoid overcrowding them with too much content.			
6- Add transitions and animations sparingly to enhance the flow of your presentation.			
M4: Conduct the seminar			
1- Incorporate interactive activities or questions to encourage active learning and retention.			
2- Clearly communicate the structure and flow of the lecture to guide audience' understanding.			
3- Use clear and concise language, speaking at an appropriate pace and volume.			
4- Maintain eye contact with the audience and engage them through gestures, body language, and facial expressions.			
5- Encourage active participation by asking questions, allowing time for audience responses, and facilitating discussions.			
6- Address any questions or concerns raised by audience during the seminar.			
7- End the seminar with a brief recap and encourage audience to seek further resources or ask questions if needed.			
M5: Connect the basic anatomy with the clinical application			
M6: Engage in fruitful discussion with audience			
Overall presentation and performance (4 marks)			
Total 50 (x2/5)=20			

Comments & feedback

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EPA 7: Create complete anatomy exams

MCQ preparation rating scale

Observer name: _____

Instructor name: _____

Course name/ code: _____

Date and Time of Observation: _____

Topic observed:

evaluation is using 3-point Likert scale; Proficient 3 ,satisfactory 2 , Unsatisfactory 1

Item	1 (0.5m)	2 (1m)	3 (2m)
1. Blueprint is prepared with the exam			
2. Student stick to the blueprint			
3. Exam is provided with key			
4. Scientific contents are true			
5. Questions pass the cover test			
6. At least 1/3 of the exam is evaluating high cognitive level			
7. Questions are not negatively phrased			
8. Only one true answer is present (or if more is indicated)			
9. No (none of the above – all of the above) in the options			
Overall performance (2 marks)			
Total (20/2=10 marks)			

Comments & feedback

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…… Signature

EPA 7: Create complete anatomy exams

Critique exams rating scale

Observer name: _____

Instructor name: _____

Course name/ code: _____

Date and Time of Observation: _____

Topic observed:

Evaluation is using 3-point Likert scale; Proficient 3, satisfactory 2, Unsatisfactory 1

Item	1 (0.5m)	2 (1m)	3 (2m)
1. Student comment on the exam Blueprint			
2. Student comment on the key			
3. Student picks the wrong scientific data			
4. Student picks all the mistakes in the essay exam			
5. Student corrects all the mistakes in the essay exam			
6. Student picks all the mistakes in the MCQ exam			
7. Student corrects all the mistakes in the MCQ exam			
8. Students comment on the percentage of the high cognitive questions			
9. Students correct questions to reach percentage of 30% high cognitive level questions			
Overall performance (2 marks)			
Total (20/2=10 marks)			

Comments & feedback

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EPA 7: Create complete anatomy exams

SAQ preparation checklist

Observer name: _____

Instructor name: _____

Course name: _____

Date and Time of Observation: _____

Topic observed:

evaluation is using 3-point Likert scale.

- Proficient 3
- satisfactory 2
- Unsatisfactory 1

Item	1	2	3
Blueprint is prepared with the exam			
Student stick to the blueprint			
Exam is provided with key			
Student uses clear action verb at the beginning of the questions			
Questions clearly indicating the needed answer			
At least 1/3 of the exam is evaluating high cognitive level			
total			

Comments & feedback

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EPA8: Involve in the quality work in department

Course report construction rating scale

Student name:

_____

Instructor name:

_____

Course name/code:

_____

Date of evaluation:

_____

Evaluation is done using 3-point Likert scale; 1 (unsatisfactory), 2 (satisfactory), and 3 (proficient).

Item	1	2	3
1- Course report is properly outlined.			
2- Basic course information is properly stated.			
3- Statistical analysis of students' exam results (before & after resit) is included.			
4- Percentage of taught topics is mentioned.			
5- Teaching and assessment tools are clearly stated.			
6- Members of examination committee are enlisted.			
7- Progress on actions identified in the previous year is stated.			
8- Action plan for the next academic year is prepared adequately.			
Total Pass/fail			

Comments & feedback

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Signature

EPA 9: Anatomical Model Preparation rating scale

Student name: _____

Instructor name: _____

Course name/code: _____

Date of evaluation: _____

Evaluation is done using 3-point Likert scale; 1 (unsatisfactory), 2 (satisfactory), and 3 (proficient).

Item	1 (0.5m)	2 (1m)	3 (2m)
1- The materials used for modelling is suitable for its target.			
2- The model mimics the true Anatomical specimen.			
3- The relationship between the model parts is properly designed.			
4- The anatomical features are described in details.			
5- Specimen is well presented.			
6- Specimen key is well prepared.			
7- The model is creative.			
Overall presentation and performance (6 marks)			
Total (20/2=10 marks)			

Comments & feedback

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Signature

EPA 9: Anatomical Drawing rating scale

Student name: _____

Instructor name: _____

Course name/ code: _____

Date of evaluation: _____

Evaluation is done using 3-point Likert scale; 1 (unsatisfactory), 2 (satisfactory), and 3 (proficient).

Item	1 (0.5m)	2 (1m)	3 (2m)
1- The name of the drawn specimen is written clearly.			
2- The drawing mimics the true Anatomical specimen.			
3- The relationship between the drawn parts is properly illustrated.			
4- The anatomical features are correctly labelled.			
5- The used colours are suitable.			
6- The dimensions are considered.			
7- Light and darkness are used for better discrimination of anatomical features.			
8- Shadow is used for better illustration.			
9- The 3D design is considered.			
Overall performance (2 marks)			
Total (20/2=10 marks)			

Comments & feedback

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……Signature

EPA 9: Bony specimen preparation rating scale (Direct Observation)

Student name: ……

Instructors name: ……

Course name/code: ……..

Date of evaluation: …….

Evaluation is done using 3-point Likert scale; 1 (unsatisfactory), 2 (satisfactory), and 3 (proficient).

Item	1 (0.5m)	2 (1m)	3 (2m)
1- Bone features are properly identified.			
2- Attached muscles are properly labelled.			
3- Related structures are properly labelled.			
4- Sites of articulations are identified.			
5- Side is properly identified.			
6- Specimen is well presented.			
7- Specimen key is well prepared.			
Overall presentation and performance (6 marks)			
Total 20			

Comments & feedback

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Signatures

EPA9: Prepare anatomical specimen

Radiological Film Interpretation observation tool (mini CEX)

Student name: _____
Instructor name: _____
Course name/code: _____
Date of evaluation: _____

Evaluation is done using 3-point Likert scale; 1 (unsatisfactory), 2 (satisfactory), and 3 (proficient).

Item	1 (0.5m)	2 (1m)	3 (2m)
1- The type of the film is identified.			
2- The view of the film is mentioned.			
3- The Anatomical region is accurately identified.			
4- The Anatomical features are properly identified.			
5- The bones are properly labelled.			
6- The interpretation is focused.			
7- The pathology or congenital anomaly is mentioned (If present).			
8- The clinical judgment is grounded on basic knowledge.			
Over all performance (4 marks)			
Total (20/2=10 marks)			

Comments & feedback

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……Signature

EPA 9: Video Demonstration rating scale (Direct Observation)

Student name: _____

Instructors name:_____

Course name/code: _____

Date of evaluation: _____

_____

Evaluation is done using 3-point Likert scale; 1 (unsatisfactory), 2 (satisfactory), and 3 (proficient).

Item	1 (0.5m)	2 (1m)	3 (2m)
1- Define the objective of the video.			
2- Define the audience clearly.			
3- The voice is clear.			
4- The video duration is suitable to clearly reach the target.			
5- The content is suitable.			
6- Language is clear.			
7- Attract the audience in a successful manner.			
8- Show the specimen in a proper way.			
Overall performance and presentation skills (4 marks)			
Total 20			

Comments & feedback

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…… Signatures